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DETROIT, APRIL 1, 1922

CURRENT COMMENT

THE MICHIGAN FARMER SAYS:

It is unfortunate that men will allow "good enough" to keep them from the best.

The day for working apart is passing and the time to edge in is here.

The best leaders seek character and quality as well as numbers in their following.

Perhaps the old Sioux Indian chief was partly right when he said, "the white man turn too much of the sod wrong side up."

Had Adam kept books and records his gardening might not have proved so perplexing to him.

Better start applauding the benefactors of mankind that they may have a little show in the public mind with the men who study to scar and cripple the race.

It is a mystery why the farmer will carefully select pure-bred sires for his herd but will sow any kind of seed when the planting season arrives.

Michigan Tax Statistics

A COMPARISON of the total Michigan tax figures for 1921, recently released by the State Tax Commission, with the total tax figures for the preceding year will be of interest to every taxpayer. This comparison shows an increase in every class of taxes save one, and a very considerable increase in most classes. Expressed in percentages the increase in the several classes of taxes in 1921 over 1920 were as follows: State tax, seventeen per cent; county tax, fifteen per cent; township tax, three per cent; school tax, two per cent; highway tax, eight per cent; county road tax, seventeen per cent; city tax, twenty-three per cent; village tax, seventeen per cent; rejected tax, eight per cent. The only class of taxes in which there was a decrease in 1921 as compared with 1920 was the drain tax, in which there was a decrease of seventeen per cent. The percentage of increase in all taxes for 1921 over 1920 was twelve per cent.

The assessed valuation of all property in the state was increased three per cent in 1921 over the assessment figures for 1920. The assessed valuation of real estate was increased four per cent, while the assessed valuation of personal property decreased one-

half of one per cent. The average rate of taxation per \$1,000 was \$28.80 in 1921 as compared with \$26.40 in 1920, an increase of nine per cent. The tax levy per capita in 1921 was \$43.02, as compared with \$38.29 in 1920, an increase of twelve per cent. In 1910 the tax levy per capita was \$12.71. In a decade the population of the state has increased about one-fourth, while the total of all taxes is about five times as large as ten years ago.

These figures show the tendency to increase public expenditures all along the line from the township up, during recent years. Much of this increase has been unavoidable as the result of increased costs during the war and post war period; much of it has been the result of a general demand for needed public improvements, many of which have been secured through bond issues which remain to be paid, together with heavy interest charges, by future taxation. It is undoubtedly impossible to again reduce taxes to the level of ten years ago. But it is possible to stop the tremendous increase, and it should be possible to deflate administrative costs in some measure commensurate with the general deflation which has been felt by every taxpayer.

But the only way in which this can be accomplished is by general public interest in the proposition. Every voter should make it a point to be present when the township appropriations are made at the annual township meeting on Monday next. Every voter should take an intelligent interest in the primary election at which candidates for legislative officers are chosen. Good business in all departments of local, state and national government should be made a general slogan to the end that a halt may be called to the rapid increase in the rate of taxation, and that value received may be returned for tax money in the way of goods or service all along the line.

Let Us Have The Facts

FOLLOWING the agitation of the matter for many months a general strike of coal miners has been called by union officials to become effective on April 1. It has been announced that efforts on the part of government agencies to adjust the differences between the mine workers and the mine operators have failed to avert the strike. In the meantime the public must suffer the result as the innocent bystander without any clear idea of what it is all about.

In the final analysis the result of such a contest must, in large measure, be decided by public opinion. At least, it is in the interest of public welfare that the public should be in possession of facts upon which to form an intelligent opinion regarding the merits of the contentions in this industrial contest. These facts should be clearly set forth by whatever government agency is best equipped to furnish them and this should be done at the earliest possible date.

The Sunday Egg

SOME time ago in our poultry columns there appeared a short article on the religious hen who laid every day in the week except Sunday. That day she observed strictly as a day of rest.

Lately, however, there has come to our attention a laudable use for the product of the irreligious hen—the one who, through inherent qualities or environment and care simply can not stop laying on Sunday. The Baptists in Iowa have asked the women of the state to raise \$75,000 by April 20 for use in foreign and home missions by contributing the eggs their hens lay on Sunday.

This leads us to use our pencil. In

Michigan there are about ten million hens. If only one hen in ten is a non-observer of Sunday, the Michigan hens would lay a million eggs each day of rest. This would mean in round figures about 80,000 dozen. At the low price of twenty-five cents per dozen these Sabbath day breakers would be contributing \$20,000 to charity every Sunday, or \$1,040,000 per year.

So, it seems that even from the standpoint of charity the poultry business figures out well—on paper. At least there are possibilities along this line and it may offer a suggestion to some local rural congregations as to a means of filling the ever-present need for money for both local and foreign endeavors.

The Leader to Tie To

THE writer is acquainted with two active young men who represent two types of leadership. One of these men is ambitious and possessed with a surplus of energy, a strong heart and plenty of nerve and a more or less definitely defined objective toward which he is moving. He appears, however, to be working on the premise that he will be able to climb highest when he has placed the greatest number of his competitors under his feet.

The man who would be listed with the other class is not ambitious for himself. He works for principles rather than for personal accomplishment. His zeal for some worth-while cause moves him to undertake. His physical vigor is just a bit under par and measured by the mental ability of others who have done less, his intellectual equipment is not all that at least he himself desires. But the unselfish devotion to his work not only has furnished the necessary energy for carrying on, but it has placed him in a position to use the ability of others. He always insists on taking a seat with the boys at the foot of the table and the boys, in spite of his modesty and humility, are just as insistent that he be exalted to the head place. He is unconsciously advancing himself by lifting others.

The latter is the type of leaders of which we need more. It should be the enviable pride of every school and business and social organization to contribute to the community a generous number of leaders who are willing to "lose their life" that a cause might win.

What of the Future?

IN a recent address on the international situation, Professor David Friday, who this week takes up his active duties as president of the Michigan Agricultural College, stated that in his opinion the farmer is confronted with a situation which challenges the most carefully considered program.

It is his belief that the volume of agricultural production is quite certain to be maintained at or near its present level. With European countries practically bankrupt, it is apparent that real problems are involved in the distribution of these products to the advantage of the farmer. President Friday hopes to bring the resources of the Agricultural College to the aid of the farmers and of consumers to the end that during these coming years the situation may be handled more efficiently.

There would seem to be more hope in the domestic market for farm products. Economists hold that low prices for farm products and high prices for manufactured products in this country indicate an abnormal condition and cannot last. In their study the year 1898 was used as a starting point and the population and production of both farms and factories for that year were

put at 100 per cent. Increases during the following years were represented by index numbers such as 105 or 112, meaning that there had been a jump of five per cent or twelve per cent as the case may be.

In 1903 the population stood at 108, the farm production at 105 and manufactured products at 125. Four years later the figures had advanced to 117 for population, 112 for farm output, and 156 for the manufacturers. From then until 1911 both population and agriculture continued to grow, while manufacturing remained almost stationary with the score standing at 125, 117 and 158 respectively for population, farm products and manufactured goods. At the close of the war, agricultural production and population figures were both badly outstripped by the output of our factories. The figures then read, population 139, agriculture 138, and manufactures 228.

From the above it appears that with food production scarcely keeping pace with our increase in population and with our supply of manufactured goods running far ahead of both, then, according to economists, farm prices in normal times ought to approach a level more closely approximating that maintained by manufactured articles. This was true in the first decade of the century, and economists contend that it will hold true again when normal conditions obtain.

We simply hope that the weather vanes on the barns of these seventh sons are in good working order.

April Won

I WAS sittin' by the fire readin' the Weekly Call, when I saw that the President reduced the monthly expenses of his White House from \$25,000 to \$15,000.

I thought of it quite a while and then went to Washington. With my hair combed nice and my shoes shined I went in to see Mr. President. It was no more trouble than to see "Penny" Pulford, our banker, when I go to get money for the "Society for the Prevention of Cruelty to Delinquent Tax-payers."

"Now," I says, "Mr. Pres., you is to be congratulated upon the savin' you have made in your household, but I kin keep my white house for a generation on the amount it costs you a month. Therefore, I feel it's my patriotic duty to tell you how. Here's how:



Just let the Missus use her chicken money. When she wants money for groceries and etc., just act broke-like and she will use the egg money all right. Womin's all alike.

And it won't cost you nothin' for keepin' your chickens, either, 'specially if you kin get a lot of this Congressional Free Seed, which makes better chicken feed than garden seed.

And, Mr. Pres., chickens is fine in plum orchards, 'cause they eat bugs. Just keep yours in the political plum orchard and they'll keep the plums free from the office-seekin' bug, which is 'specially desirable since the political plum crop ain't so big like it used to be."

The Pres. listened smilingly, and said, "I appreciate what you have said but I—" Then I felt a hand on my shoulder, and I woke up. Sophie was sayin, "Hey, Hy, you ain't no finanshull authority. Don't you know this is the first of April?" Which made me think we are in the midst of the only National Holiday we kin' all celebrate, 'cause we're all fools sometimes. And some of us is most of the time.

HY SYCKLE.

For the Past Fifty-five Years

Herefords Have Been Bred on the Farm Established in Genesee County by Governor Crapo, Michigan's War Governor.—By Chet. Shafer

THE Crapo farm in Genesee county, twelve miles west of Flint, affords a unique distinction for Michigan by maintaining the oldest strain of Hereford cattle in the United States. The original Herefords on the farm were purchased by Michigan's

picked Jerseys and then Holsteins and finally settled on Herefords. Before he died he made it a vital point in his will that his heirs should carry out the work he had started on the farm and continue the Hereford strain. The farm is now in the possession of S. T.

dustry. Economical measures are in evidence in all the branches of the work and expenditures are made in accordance with the income. It is the belief of the Crapo's that a sound business policy is the real need of American farmers and that farming will never come in for its full recognition from industrial and financial men until the disposition of the farmer is to systematize and operate on a similar basis to that followed by industrial and financial leaders.

The cows on the Crapo farm are kept in good condition on inexpensive feeds. It has been the Crapo policy to feed little or no grain. Their ration generally consists of hay, straw, cornstalks and silage. On this diet the cows keep in trim shape and add a square little calf to the herd each year in April.

The steers have recently come into considerable prominence in Genesee county through extensive purchases made by the markets in Flint. Numerous cattle have been fattened after the Earlrripe plan and have commanded high prices. For many years the urgent demand in the west for registered cattle has taken the surplus from the farms before it has scarcely been weaned, the heifers forming the foundation of new herds and the bull calves becoming herd leaders. But, in these times, the westerners seem to be unable to pay the prices that would make

shipping profitable. Railroad rates have also discouraged the trading with distant customers. And because of these facts the markets in Michigan have been particularly susceptible to Michigan-raised pure-breds. Following this system the Crapo farm has undertaken the production of steers for beef and the results have been satisfactory.

Cleanliness of quarters and stables is one of the keywords at the Crapo farm. John F. Miller is the superintendent, a Swartz Creek banker and one of the best-known cattle men in Genesee county. Operating with W. W. Crapo he has kept the farm up to a high point of efficiency during the past few years and has made it a much-talked-of place. Crapo's rules call for a gentle handling of all stock, and decent consideration. Most of the work at the farm is carried on by full-blood Indians, descendants of chiefs, most of them, who were placed on the farm during the administration of Governor Crapo.

The Crapo farm is quite a show place. The old homestead of the governor attracts many visitors and the great herds of Herefords are the subject of much interested attention. The methods used on the farm, both in business operation and in the handling of the stock, have been introduced only after careful study and observation.



The Herefords on this Farm Show Direct Line Breeding from the Animals Imported in the Sixties.

war-time governor, H. H. Crapo. He placed a herd sire and three cows on the farm in 1867 and the herds of the farm today are directly descended from these animals. The records of the American Hereford Registration Society show this to be the oldest line of this breed in the United States.

Governor Crapo purchased the 2,200 acres that comprise the Crapo farm back in 1860. At that time he was preaching the value of swamp lands to all the farmers in Michigan. It was his contention that low lands, properly drained, would become extremely valuable in time and would constitute, as a grazing and breeding ground for herds, one of the highest financial assets of the state. His arguments were circulated on handbills, some of which may still be seen at the Crapo farm. And backing up his stand the governor purchased the Crapo farm and used his purchase to good advantage in inducing other farmers to follow out his idea. He immediately built a homestead and began the drainage work which has since made his farms one of the finest cattle ranches in the state.

When the governor began the selection of a strain for his operations he

Crapo, millionaire rail chief, and is under the direct supervision of his son, William W. Crapo.

In the furtherance of the governor's wishes, W. W. Crapo made a purchase at the International Live Stock Show at Chicago which gave Michigan a fine breed sire. He bought Hazford Bocaldo III. This animal, two years ago, was first in his class at the International as a calf. He was national champion at the Kansas National Live Stock Exposition in 1921 and at the 1921 International he was fourth, standing one below the great sire owned by Governor McCray, of Indiana, which animal he outplaced a month previous at the Royal at St. Louis. In reference to Mr. Crapo's purchase the American Hereford Journal said:

"The state of Michigan got a great show and breeding bull in Hazford Bocaldo III, purchased by W. W. Crapo, of Swartz Creek. This was the bargain of the sale at \$2,000."

Cattle raising at the Crapo farm has been placed on a strictly business basis. Perfect records for checking up every performance and every transaction are kept the same as in any successful and properly developed in-



The Homestead Built by Governor Crapo a Half Century Ago still Stands as Convincing Evidence that the Governor Built Well.

The First Spring Plantings

Earliness is an Important Factor with the Small Grain Crops.

By J. F. Cox of the M. A. C.

AS this article is being written in mid-March, blackbirds are flying in the air, a neighboring farmer reported killedeer in his meadow, sap is flowing and the pussywillow buds are open. Undoubtedly country folk are thinking of their first spring plantings of oats, barley, spring wheat and accompanying seedlings. These crops do best when planted early and for best yields should be planted as early in April as the land is in fit condition for proper fitting and planting.

Approximately two million acres were in cultivated crops last year. Crop rotation is a general practice in Michigan hence at least 1,400,000 acres of land will receive oats, barley and spring wheat and seedlings of clover, alfalfa, sweet clover and mixed meadow which will be made with these crops. Oats occupy a greater part of this acreage and during the latter part of March, April and early May, Michigan farmers collectively will plant

about one and one-quarter million acres.

If it were possible for all to plant seed of high-yielding varieties at the proper time on well prepared seed-beds, Michigan's average yield would be a good deal closer to forty-five bushels than thirty-two, the average yield for the past fifteen years. Good seed oats are not too plentiful owing to last year's light crop.

Certified oats of the Wolverine, Worthy, College Wonder and Success varieties are reported by Secretary H. C. Rather, of the Crop Improvement Association, to be pretty well sold out at this early date, but considerable supplies of these and other high-yielding varieties are available from farmers throughout Michigan and from the Farm Bureau Seed Department and Michigan seed companies. The Wol-

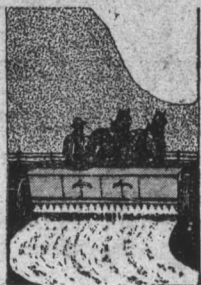
verine is apparently the best variety for planting under varying conditions, over a wide area, throughout Michigan. The Worthy is held in high regard on heavy soils where oats ordinarily lodge badly. Owing to its stiff straw it stands up better. Other varieties, such as the Johnson in lower Michigan, the Silver Mine and Victory in central and southern Michigan, and the Swedish Selected in northern Michigan, give much better yields than the average.

Seed should be carefully fanned this year to take out pin oats and weed seeds and should be treated with formaldehyde to prevent smut loss. High quality oats held over under good storage conditions from the 1920 crop can be counted upon to help out wherever a seed shortage exists. A germination test should be made to make

certain that the seed is good enough to plant. Good seed oats should germinate ninety-five per cent or better. If germination is somewhat less the rate of planting should be increased proportionately to equal the customary rate. Usually two bushels of oats are planted per acre, although on heavy land, or soil of very high organic matter ten pecks will give better results. If planting late in the season, it is advisable to increase the rate of seeding to two and a half bushels per acre. Those who wish to particularly favor their seedlings of alfalfa or clover will secure better catches by seeding oats and barley at the rate of not more than one bushel per acre, though a decreased yield of grain will result.

Barley Acreage Increasing.

Barley is becoming increasingly popular in Michigan as a feed crop. The acreage increased over two hundred per cent from 1909 to 1919, 93,000 (Continued on page 393).



Limestone Freight Rates Reduced

\$10—\$30 Per Car

It is a mighty fortunate thing for Michigan farmers that Limestone freight rates have been radically reduced just now, when it is essential to apply Limestone for spring planting.

Approximate Cost of Solvay Pulverized Limestone Delivered to the Station in Bulk Carloads of Not Less Than 40 tons each.

	Per Ton
Grand Traverse District	3.85
Grand Rapids District	3.70
Kalamazoo and Battle Creek District	3.60
Lansing District	3.40
Flint, Jackson and Hillsdale District	3.30
Oakland County District	3.20

This is the reduction thousands of Michigan farmers have been waiting for.

Orders are pouring in from all parts of the state. And while we have a large stock on hand, it will be well to get your order in immediately and avoid all possibility of delay in shipment.

With this radical reduction in the cost of applying Limestone—with your County Agent advising you to use it—with your own Agricultural College and every farm authority insisting you must use it in order to secure maximum production—with the absolute necessity of using Limestone to secure satisfactory results from Alfalfa or Clover in Michigan—when you consider these facts, do you dare do without Limestone this year?

If you have not yet received a copy of our book on Limestone, its uses and advantages, drop us a line today and we will send it free.

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PULVERIZED LIMESTONE

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Late Agricultural News

FRANCE SHY ON SUGAR.

A REVIEW of the sugar situation in France shows that not less than 250,000 tons will need to be imported before next October to take care of the demand. Of this amount it is calculated that 200,000 tons will have to come from American sources.

Senator Watson, speaking for the committee, announced that "the duty on Irish potatoes will be thirty-five cents per bushel. There is no denying such an appeal." Thus a Maine senatorial Cáruso had more influence in shaping a scientific tariff than all the delegations of practical potato growers and their organization representatives.

TO RADIO AGRICULTURAL NEWS.

THE American Farm Bureau Federation Department of Information, has made arrangements with the Westinghouse people for the wireless broadcasting of agricultural news from Chicago each evening at 6:30 o'clock, says a Chicago report.

FOR A POTATO TARIFF.

THERE is an interesting story told in relation to the potato tariff. Senators Fernald and Hale, of Maine, appeared before the senate finance committee on St. Patrick's Day and asked for a tariff of thirty-five cents a bushel on potatoes. Their appeal was at first taken as a joke, but it developed into a serious plea for a tariff that would adequately protect the United States potato grower from his Canadian competitors.

After the appeals have been made, Senator Watson said: "Senator Fernald, we were much impressed by your arguments, but we understand that you have a fine voice, and if you will favor us with a song, say 'Throw Out the Life-line,' it may aid your cause."

Senator Fernald, willing to comply with this request, sang the hymn as requested. The senators applauded vigorously and by request the Maine statesman sang, "Lead Kindly Light."

At the close of this song service, people.

THE TARIFF BILL.

THE senate finance committee is making a strenuous effort to have the permanent tariff bill ready to report out at an early date. It has been delayed by failure of the committee to agree on the proposed dye embargo and the sugar tariff. The sugar rates in the Fordney bill on the basis of \$1.60 a hundred pounds for Cuban raw, after a long discussion, was approved by the majority members of the committee.

It is asserted by some farm organization leaders who have kept in close touch with the situation that the manufacturers are demanding a tariff which will amount to an embargo on manufactured commodities, and that a strongly organized attempt has been made to force down the tariff on farm products, which they are insistent in classing as raw materials, as low as possible. The dairy interests have made a strong fight to secure effective protection against oriental vegetable oils. With the united support of the live stock interests, the peanut planters and the producers of soy beans, and other interests that are being affected by the flood of imported oils, it is believed that this protection would have been secured. But the soap and allied interests have been able to defeat most of the demands of the dairy people. (See page 417).



Wednesday, March 22.

WASHINGTON has accepted Dr. Otto Ludwig Weidfeldt as German ambassador to the United States.—Great Britain denies that Japan is helping the revolutionists in India.—Intense feeling and preparations for war are evident on the border between Ulster and South Ireland.—A missing University of Chicago co-ed got work as a cook because she wanted to get away from riches and pampering.

Thursday, March 23.

THE United States Prohibition Department is planning on using the radio in running down rum runners along the Canadian and Mexican borders.—The Polish-American League has been formed in Detroit for the purpose of helping Poles who are not citizens to become naturalized.—The textile mills in Massachusetts cut wages twenty per cent.

Friday, March 24.

THE honor system for examinations in the Iowa University fails, because too many use "cribs."—Five women are drawn as jurors for the April Circuit Court in St. Joseph county.—A. C. Townley, founder of the National Non-partisan League, has announced that he will sever his connection with that organization.

Saturday, March 25.

EARTHQUAKE shocks were felt in St. Louis and surrounding territory.—The time lost by the government stenographers' powdering their noses costs the United States six million dollars a year.—Henry Ford will open a hydro-electric power plant on

the Hudson river opposite Troy, New York, on June 1.

Sunday, March 26.

IT is rumored that the Lackawanna Railway will buy the Ann Arbor road so as to compete with the Pennsylvania in Michigan.—The soldiers' bonus bill passed the house of representatives by a vote of 333 to 70.—"General" Jacob Coxey, who led Coxey's army twenty-eight years ago, says he will lead one million jobless men to Washington if congress fails to relieve the unemployment situation.—H. H. Halliday, commissioner of agriculture, has resigned to accept the secretaryship of the Michigan Agricultural College.

Monday, March 27.

DEAN HEILMAN, of the Northwestern University, says that there is \$750,000,000 spent yearly for cosmetics and face powder which is sixty per cent more than the total endowment of all private colleges.—The senate O. K.'s the four-power Pacific treaty by a vote of sixty-seven to twenty-seven.

Tuesday, March 28.

OVER 350,000 tenants sued their landlords last year in New York.—Congress is asked to appropriate \$25,000 to be used by the secretary of agriculture in organizing cooperative buying and selling organizations among the melon growers of Georgia.—Eight in a boy scout party are drowned in Magician Lake near Dowagiac.—Poncaro Varelas died in California at the age of a hundred and four. He farmed there until he was a hundred years old.

How Shall We Farm in 1922?

J. V. Sheap of Shiawassee County Makes Some Suggestion

WHILE the situation of American agriculture is serious it is by no means hopeless. Much has been said and written concerning the causes of this situation but the chief concern of the average farmer is how to manage his business this year so as to be able to come out with a whole hide at least.

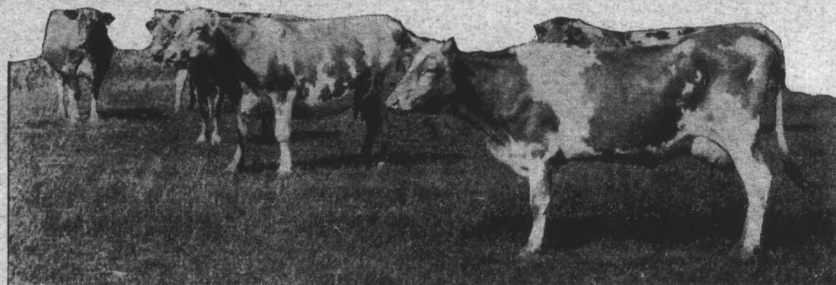
These trying times are furnishing the stimulant which urges the farmer to make a close scrutiny of his business and challenge the reason for almost every practice he is following. These result of these observations have caused many a seasoned farmer to sit up and take notice. He has decided to make some changes. In order to best analyze the present situation let us consider how the various farm products are standing the storm.

The purchasing power of farm products has increased but little during the year. A bushel of corn will buy only one-half as many things as it would in 1913. Oats stand very little

stances may be sighted where the old mortgage got a solar plexus punch through this method. If we can not grow these seeds for others let us make use of them in securing better crop yields. This is one way, providing crops have been put in and cared for properly, to make our acres bring more profits without additional labor. There is no use farming 120 acres when, by proven methods, it is possible to secure as many bushels of better quality products from eighty acres.

Some Dairy Farmers Make Money; Others Not.

"Records secured last year by the Farm Management Department of the Michigan Agricultural College show that in Wayne county in the face of adversity a dairy farmer with an investment of \$24,000 and a dairy herd that averaged 10,400 pounds of milk per cow made above all expenses eight and a half per cent on his invested capital. A neighbor with a herd that produced only 6,000 pounds of milk



Generally Speaking, the High-producing Cow Brings the Owner Larger Net Returns than Does the Low Producer.

better in this respect. Wheat has not regained the full purchasing power it had during the five-year pre-war period. The purchasing power of potatoes, wool, hogs and steers remain about the same as in the pre-war period, while sheep, dairy products, and poultry products have a somewhat greater purchasing power than they then had.

While it does not seem that we should contemplate as yet any radical changes in our farm management program, the present situation has brought out the fact that farmers who will make any money during the years ahead must cut out all possible waste and increase the production of every unit where such an increase can be made. There are several ways in which such increases in production can be secured with no additional labor. Among them are the use of better seeds; improving the production of the dairy herd by getting rid of the unprofitable cow; the use of more legumes and especially alfalfa in the rotations; the culling out of the slack-hen from the flock and better marketing methods.

"There is reason to believe that the whole western world has drifted toward a shortage of animals. This is a matter which will be more evident five years hence. With grain production and prices as they stand in relation to live stock it would seem good policy to slowly increase the number of hogs, beef cattle, sheep and horses.

The farmer who wants to keep the old homestead free from debt and lay by a little for a rainy day, will be ready to fall in line with the best agricultural practices, as found by experiment by our agricultural colleges and proven out by our progressive farmers.

Farm seeds adapted to our various farm needs have been tested and proven out by our various experiment stations and as long as they are there to do this for us, let us accept their findings and profit thereby. Many a farmer today is making a bit of change by growing these certified varieties of farm seeds for his neighbors, and in-

per cow made above expenses only two and one-half per cent on a \$25,000 investment. Not every dairy cow in Michigan produces even 6,000 pounds of milk. The same principle applies to poultry culling, seed selection and rotations with alfalfa."

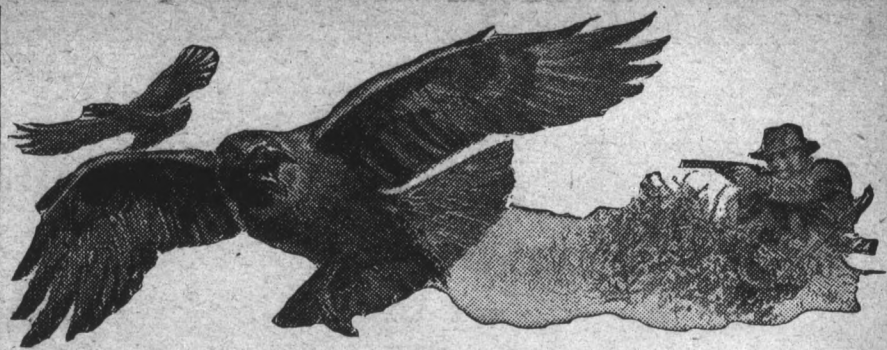
Time spent in getting neighbors interested in a cow-testing association may bring big financial returns. Your county agent will help in this work. There is nothing like a cow-testing association to get men interested in what their cows are doing and in locating the cows they do not want. The feed wasted each year on slacker cows make out net incomes look sick.

The importance of producing more legumes, and especially alfalfa, is becoming apparent. Our progressive farmers are proving the wisdom of this advice.

Watch the Chicken Roost.

Recent statistics are proving that poultry well cared for and properly culled has made more profit than anything else on the farm. The poultry house should be up-to-date, having the proper ventilation. Here are just a few pointers in culling out the farm flock: Keep the late moulters. They moult quickly and get back on the job before the early moulters do, as they have more vitality. Pick out the hen with the clean-cut head, without surplus flesh about the skull and jaw, the one with the eye that stands out like a shoe button. The conformation of the head reflects internal conditions. With a neat, refined head we expect to find a deep body and a mellow egg sack which gives good capacity without surplus fat. Again call in your county agent. He is usually a past-master at nailing the cull hen.

Last, but not least, the way to make your local co-op worth while to you is to "co-op." There has been a lot written and said on the subject of cooperation recently, but the only way the average farmer is to get anywhere with his marketing is to cooperate and keep on cooperating until the advantages to be gained from his own organizations are felt by every member.



Twenty years of active duty still shooting hard and straight

CROWS, hawks, and other devastating pests never get away from this man.

For twenty years he has been using the same Stevens shotgun, and for twenty years his trusty old gun has continued to throw the same hard-hitting, even pattern.

Through the years, the endurance and accuracy of Stevens guns have remained unsurpassed. When you pay more than the price of a Stevens gun, you don't get more gun quality — you are paying for frills and ornaments.

It's easy to prove the accuracy of a Stevens

Here's the test for a full choke: on a piece of paper draw a circle 30 inches in diameter; measure off 40 yards and fire into it. Your Stevens will throw an even pattern of 70% of the pellets into that circle.

A Stevens modified choke will throw an even pattern of 50%. And a Stevens cylinder bore will throw an even pattern of 40%. Try it. Only a perfectly bored gun will meet this test.

Stevens manufactures a complete line of small bore rifles and shotguns of every description. Ask at your dealer's or write for the interesting catalog describing in detail the complete Stevens line. Address:

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Every firearm turned out by the J. Stevens Arms Co. has attached a tag on which is printed the Stevens guarantee. This tag is your insurance for Stevens quality and workmanship. Read carefully this guarantee.



PRICE
inc. tax
\$32.40

Model 335 Stevens, double-barrel, hammerless shotgun—other models ranging from \$19.50 to \$36.00.

PRICE
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\$43.50

Model 520 Stevens repeating shotgun—Stevens made the first hammerless repeaters.

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For Lawn Fence—Use Peerless

Peerless lawn fencing does more than protect your property from careless people and wandering animals. It gives your grounds a distinctive, attractive appearance in which you can take genuine pride. You have a choice of any number of handsome styles of Peerless lawn fencing.

Peerless lawn fence is inexpensive. It can easily be put up at small cost by anyone. It casts practically no shadow and enables you to cultivate along the fence line.

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Farm Loan
System will help
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your land.
Ask the County
Agent.

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to break it up and get them back in condition. Twenty-eight years' use has made "SPOHN'S" indispensable in treating Coughs, Colds, Influenza, Distemper, Pink Eye, Epizootic, Heaves, and Worms among horses and mules. Acts marvelously as a preventive, acts equally well as a cure. Use "SPOHN'S" for Dog Distemper. Write for free booklet. Obtainable in two sizes at drug stores.

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The Michigan Farmer

Our Service Department

Always Give Name and Address When Sending Inquiries

THE SCHOOL FLAG.

Can I sell groceries without a license? Who is the one to put the flag up when the school board refuses to do it?—G. C. H.

We know of no law requiring a license to sell groceries. The duty to display the United States flag upon school buildings is put by the law upon the school board. If they fail to obey the law, the remedy is by prosecution for their refusal.—J. R. R.

MUTUAL INSURANCE ASSESSMENT.

Would you please advise me in regard to my insurance. The company quit business and turned it over to another company. The first few years they were real reasonable in price, but last year they raised it to \$1.25 per hundred and this year to \$1.65 per hundred. Are we obliged to pay at that rate? We are willing to pay at a reasonable price, but this is too high.—A. B.

Compiled Laws, 1915, Section 9578, provides a method of compelling all mutual insurance companies to levy assessments sufficient to cover losses if they do not do so without. The only way a mutual insurance company can continue in business is by making assessments upon their members sufficient to cover the losses and the expenses of operating the company.—R.

HOLDING TWO OFFICES.

Will you please inform me whether a man has a right to hold the office of township clerk and school directorship at the same time in this state?—T. W.

There is nothing in the nature of things to prevent holding both offices at the same time. If there are any objections to it, there are only such as are contained in the state constitution or statutes and I am not acquainted with any provision of the constitution or statutes forbidding the holding of both offices at the same time nor do I find any such mentioned in the index.—J. R. R.

STORAGE CHARGES FOR HAY.

I rented a farm last March, 1921. The owner had the west mow in the barn full of hay. He sold the hay to another party and the party was supposed to have the hay out by the first of July. The hay is still here and part of my corn had to stand out all winter because I had no room in the barn for it. How much storage can I charge for the use of the mow from July on?—C. H.

There being no contract, the amount of the storage charges is merely what the storage is reasonably worth, which is a question of fact with no other rule to determine it. If tried before a jury the question would be merely what is the storage worth considering all the facts, the necessities of the defendant and the inconvenience to the plaintiff.—J. R. R.

NEW HOUSE ON OLD FOUNDATION.

Twelve years ago I raised my house and put a concrete wall under. I dug a trench twelve inches wide, removing all the dirt down to solid bottom, filled the same with small stone and put concrete on top twelve inches thick and six feet high. I now want to build a new house on this same wall, and would like to know how heavy a house my wall will hold. The size is about 27x33. Would like to use tile but am told they are too heavy. Would it be strong enough to build a two-story stucco house on?—Subscriber.

In giving the condition of your old wall on which you expect to build a new house you have not stated how far into the ground it extends. I as-

sume that it extends to a point below the frost line because you have said that it goes down to solid bottom. If this foundation rests on solid bottom below the frost line and has a twelve-inch concrete wall six feet high on top, which was built of reasonably good material, it would be substantial enough to hold any type of frame structure which you might wish to build as a house, and assuming that the base of this wall is eighteen inches or more in width it would appear to be safe for sustaining the weight of a tile block wall. However, in construction as substantial and permanent as this it is not good policy to take any chances in depending on a foundation which is insecure.—H. H. M.

GAS PLANT RESIDUE AS LIME SUBSTITUTE.

Can you give me any information as to whether or not the residue from an acetylene gas generating plant has any value as applied to soils? I am intending to apply lime to one of my fields and there is a large supply of the above material near by. It is used extensively here as whitewash and produces the same sensation in a person's eye as is produced by fresh lime.—J. E. T.

Acetylene gas is produced by the chemical reaction of water and calcium carbide. The residue is composed largely of calcium hydrate or hydrated lime. If this is taken directly from the acetylene plant and applied to land to correct sourness or soil acidity there is danger of harmful results from the gases contained in the mixture. However, if the material is left exposed to air for a time before using this danger will be removed. This same exposure will convert quite a little of the hydrate to carbonate by air-slaking. Carbonate of lime is an excellent form to use for correcting soil acidity, being of the same chemical composition as limestone and marl.—A. H. J.

PRIMARY SCHOOL.

Can a director of a school district sell wood or anything else to the school of which he is a director? Can a teacher refuse to teach scholars who are under seven years old?—J. R. G.

Compiled Laws of 1915, Section 5671, contains the following provision: "It shall be illegal for any member of the district board to perform any labor except as provided in this act or furnish any material or supplies for the school district in which he is an officer, and he shall not be personally interested in any manner whatever, directly or indirectly, in any contract with the district in which he holds office. Any act herein prohibited if performed by any such school officer, shall be deemed a misdemeanor and he shall be liable to the punishment provided for such offense in accordance with the statute in such cases made and provided."

Section 5685 provides, "all persons resident of any school district and five years of age shall have an equal right to attend any school therein." But the preceding section provides that the school board may authorize the suspension or expulsion from school of any pupil whenever in its judgment the interest of the school demands it by reason of persistent disobedience or misbehavior of the pupil. Another section provides that pupils may be excluded from school because of having communicable diseases or being quarantined.—J. R. R.

The lime-spreader is the soil's sugar bowl.

The First Spring Plantings

(Continued from page 389).
acres being reported in 1909 and 280,000 acres in 1919. The old-fashioned six-rowed Oderbrucker is most widely grown. Of this variety the Wisconsin Pedigree is the best strain. On the college experimental plats the Michigan Two-Row slightly outyielded the Wisconsin Pedigree. The acreage of this variety, though yet small, is increasing. The Michigan Black Barbless, a smooth bearded barley, is proving quite popular with those who find barley beards bothersome in handling and feeding. The beardless, hulless barley is being grown to some extent in Monroe, Lenawee and several other southern Michigan counties, but good yields are apparently not secured in central and northern Michigan.

Barley is particularly valuable as a feed crop in southern Michigan where an early grain feed is desired for summer and early fall hog feed and in northern localities where corn does not ripen safely for grain.

Barley is usually planted at the rate of six pecks per acre if plantings are made early, and two bushels if plantings are made late in the season. This seed should be treated with formaldehyde, using one pint to thirty gallons of water to control not only the covered smut of barley, but the barley stripe, a fungus disease which is increasing rapidly in Michigan. Barley takes somewhat less moisture from the soils per pound of dry matter than oats, and is harvested somewhat early; hence this crop is highly esteemed as a companion crop for alfalfa and clover.

Plant Spring Wheat Early.

Spring wheat which gained so rapidly during the war years is apparently making almost as rapid a decline in acreage. The past two seasons have been particularly unfavorable to spring wheat. This crop is best adapted to moisture-holding soils in the Thumb, central and northern Michigan, but even in these regions does not yield as dependably as oats or barley, or give as big a yield as winter wheat. The Marquis variety, or the Blue Ribbon, give the best yield. Six pecks per acre is the usual planting and a special effort should be made to plant at an early date.

Very little spring rye is planted in Michigan, owing to the unsatisfactory yield secured as compared to other spring-planted grains or to winter rye.

Fitting Seed-beds for Spring Grain.

Oats, barley, and spring wheat start best on firm, well-surfaced seed-beds. Clean corn, bean, beet and potato land can usually be put into excellent shape by thorough discing and harrowing and rolling with weighted roller or with cultipacker. This latter implement is increasing rapidly in use in Michigan and is a great improvement

over the ordinary roller and harrow in fitting seed-beds most efficiently. Exceptionally heavy soils are benefited by plowing for oats and barley. Sod lands and very weedy lands to be planted to spring grains must, of course, be plowed. Plow to a medium depth and follow with the roller and harrow to secure a firmly compacted and well surfaced seed-bed. Seed should be planted to a depth of one to one and one-half inches.

Fertilizing Spring Grains.

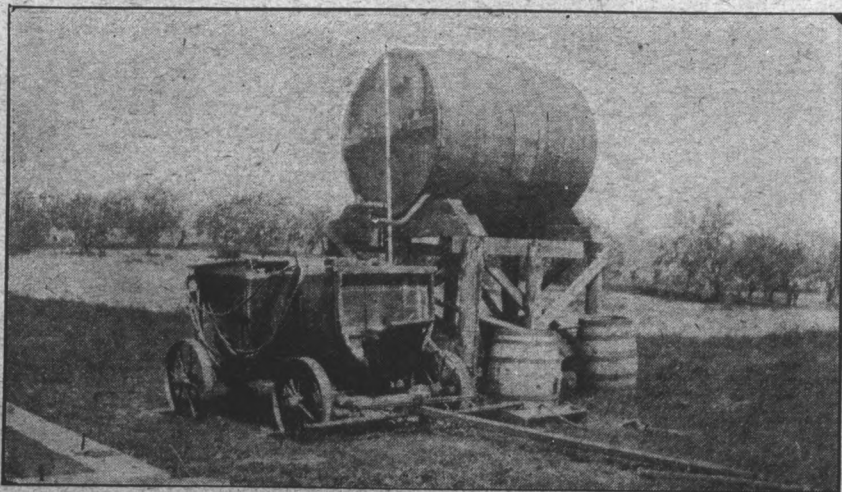
Oats, barley and spring wheat are all benefited by applications of fertilizer high in phosphorus. From two hundred to three hundred pounds of acid phosphate on average soils will give marked increase in yield and weight per bushel and will produce an earlier and a more uniformly maturing crop. On soils depleted in fertility a like amount of a complete fertilizer such as a 2-10-2 or 2-10-4, or of ammoniated phosphate should be used. Manure is usually applied on sod land in preparation for corn, beans, beets or potatoes, but on soils deficient in organic matter, a dressing of four or five tons per acre worked in when fitting the seed-bed will increase the yields of spring grain. On soils of good fertility applications of manure on oats or barley will often cause lodging.

The climate of Michigan and large areas of its soils, fertile loams, clay loams and silt loams in particular—are especially suited to oats and barley. As compared to other states high yields and excellent quality are secured in Michigan. There is, however, ample opportunity for great improvement. In all localities certain individual farmers annually get yields twice as large or more than the average yield of their community. The varieties and cultural methods employed by these skillful growers should be studied and adapted by less successful neighbors. The fixed costs, such as interest on investment, preparation of land, seed, harvest, etc., are much the same whether a thirty-five or seventy bushel crop is harvested. The returns from average yields are very near the cost of production. "Above the average yield, therein lies the profit."

SLEET ALSO HAS AN ADVANTAGE.

ONE farmer has discovered that ice storms are not without their advantages. He declares that the best time to mow briars is when they are coated with ice. When they are in this condition a man can mow them down very easily and he can also handle them to advantage, because they will not stick to his gloves.

Oil globules are the best ball-bearings. Lubrication lengthens the life of farm machinery more than any other single thing.



A Water Supply Convenient to the Orchard and Arranged for Easy Loading Saves More Time than Any Other Spraying Convenience. W. A. Snow, of Traverse City, Has Arranged the Outfit Shown Above, with Convenience and Time-saving in Mind.



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APPROVED: Fire Underwriters' Laboratories
OUR regular Radio Brand—full standard weight (55-lbs. per roll). Exactly the same grade and quality for which we had to ask \$3.15 a roll last spring.
Made of heavy roofing felt saturated and coated with Asphalt. Surfaced with crushed slate in natural red or green colors. Colors are permanent and non-fading; require no painting or staining and each rain washes it fresh and clean.
In rolls 32 inches wide, 40½ feet long (each roll enough to cover 100 square feet, allowing for 2-inch laps). Nails, cement, and instructions included with each roll. Easy to lay—only tools needed, a hammer and a jack-knife.
If you want to apply this roofing over old wood shingles, specify rolls to be packed with extra long nails, and add 8 cents per roll.

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Order direct from this ad, -our guarantee protects you. Or write for samples -sent free on request.
Shipped from Chicago, Kansas City and St. Paul, or from warehouses at York, Pa., and St. Louis, Mo.
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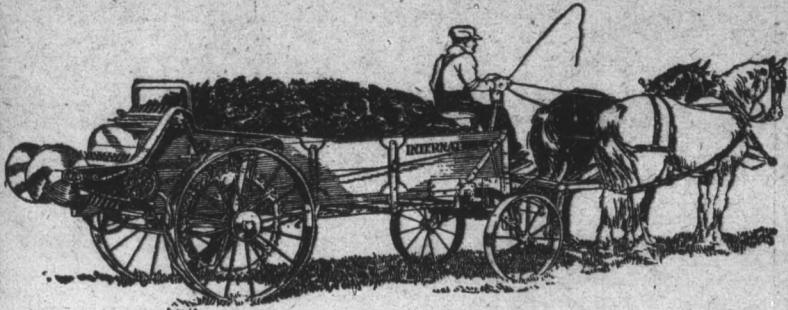
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both postpaid anywhere at proper planting time. Send Now. We have 50 other varieties of strawberries; also small fruits, shrubs, trees, evergreens, etc. Free Catalog of everything to plant. Our Reduced Prices will pay you to answer this adv. Write today to **The Allegan Nursery, Box 46 Allegan, Mich.**



Increase Your Crops With This Roller Bearing Spreader

THE popularity and fame of the International Roller Bearing Manure Spreader is due to one thing—and that is sheer merit. The record of the International spreader, of the improved type, has shown farmers that this is a product satisfactory from all points of view. Those features which create its special value, as listed below, are of practical interest to every man on a farm.

1. **Roller Bearings**—Roller bearings at 7 points—the only spreader so equipped.
2. **Double Ratchet Drive**—Walking beam transmission from main axle eccentric and extra large ratchet wheel give easy, strong, steady feed. Box tapered to eliminate friction on both sides. Six feed speeds.
3. **Oscillating Front Axle**—Auto-type, permitting short turn. No pole whipping.
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6. **Tight Bottom**—There is no clogging, jamming apron, because the spreader has a tight bottom. Spreads anything.
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Agricultural Gypsum
(LAND PLASTER)

"Makes Crops Grow"

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FertilEarth (agricultural gypsum) gives plants and soil three necessary foods that must be supplied by you to keep crops in the record breaking class—sulphur, calcium, nitrogen.

FertilEarth also reacts to liberate from soil such plant foods as potash, phosphorus and even nitric acid, when present in soil. **FertilEarth** preserves the plant food in manure in stable, in storage and on the ground surface. Try it on a small plot.

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FOR SALE Port Hutton Threshing Outfit consisting of a 19 H. P. compound engine, One 28-45 Sep. drive belt canvas cover, wood tank, hose and pump, has been used one short season, in fine shape, must sell on account of my Health. Will sacrifice. Address **WARNER CORWIN, Lake City, Mich.**

WOLVERINE SEED OATS Heavy yielding variety, clean and bright, strong in test. Offer 2000 bu. at any part at 65c per bu., sacks extra. F. O. B. Vassar, Michigan, subject to prior sale. Samples mailed on request. **Clarence Heinlein, Vassar, Mich.**

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Francisco Farm Notes

By P. P. Pope

A GAIN the time rolls around when we consider the hired help problem. It is not so serious this year, however, as for the past few years, when most all men who worked for wages could do so much better in the city. With only eight hours for work and eight hours for play, and lots of money to spend, who could blame them if they did all go to the city. But times have changed, radically changed, and the position of



great numbers of those new city-minded workers has changed quickly, from that of affluence to adversity. And when the problem of getting enough to eat and wear becomes acute, the country looks pretty good.

These country-bred folks who know the farming game, and who, attracted to the city by the high wages, have become gorged with the adverse conditions recently prevailing, and are anxious to get back to the country and to work, are more than welcome. The wages are not high, but a living is assured and the tired nerves will have a chance to recuperate. It is one of these country minded, city wearied men, with whom we have arranged to help with the work on Francisco Farm. He brings a wife and two wee boys, and a keen appreciation of good live stock. Here's hoping the venture proves satisfactory to all concerned.

We have hired a goodly number of men in our experience on Francisco Farm, but it has been some time since we have taken on a new one. The last regular employe was with us for five years and the past year a brother has done the work for a share. He is moving with his force onto a larger farm this spring, and hired help again becomes one of our problems. I presume in our experience we have employed as month hands as many married men as single men. Both have their advantages, but we prefer the married men when they are good. It is easier to hire and to fire (especially fire) the single men if they are not satisfactory. When you have in your employ a married man you have two to deal with, for a woman can make or break a hir-

ed man as well as any other man. But it is a great satisfaction to have the help handy, and always on the job, without inconvenience to the farm family. Goodness knows the housewife has enough to do on the average farm without looking after the physical wants of more than her own. And our philosophy of life is to get all the joy and comfort and satisfaction we can from day to day.

Married men are hiring out for \$30 to \$40 per month in these parts this spring, with house, garden, a little milk, and perhaps a couple of hundred pounds of pork furnished. Single men \$20 to 30, board and washing.

When I went out to the barn the other morning and looked over the brood sows in their big roomy boxes, Miss Wonder, the mother of our sale tops, was working like a trooper. She had just been confined a couple of days before in a clean sunny box, ten by twelve feet, in the far corner of the big basement. I gave her three or four more big forkfuls of dry wheat straw, fondled her a little, brushed her all over and told her to do her "derndest." She worked with a will, gathering a mouthful here and depositing it there, pawing it over vigorously, trying it out, then rooting it all up and doing it all over again. She acted for all the world like a country housewife getting ready for company, the farmers' club or something of that sort. She was surely putting her house in order and well did she know what she was about, for lo, the next morning a nest full of long, strong, black, shiny babies were tugging away at the fountain of life, with the energy and enthusiasm of a bunch of hungry boys at a picnic dinner.

The farrowing season is now in full swing, the first sow to report, the middle of March, tallied the bakers' dozen. Too thick a stand for best results, several of them were too small and weak to make a live of it, and only five of them remain. (A friend says, "Oh, I got you beat, one of my sows had two and saved them all.") "My Delight" has again proved her name by delivering a litter of nine nice ones, and two others expect to begin nest building most any time. The weather is typical of March, about the roughest of the year just now, but the big basement is immune to northwesterers, so the little fellows are safe and happy.



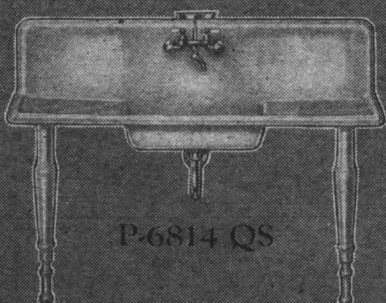
"Standard"

PLUMBING FIXTURES

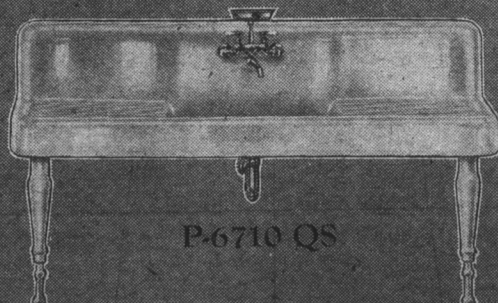


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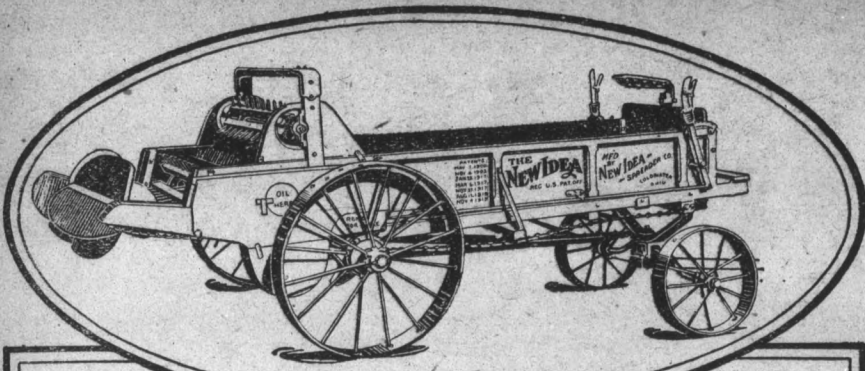
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Wolverine Seed oats 85 cts. per bu. Russet Rural Potatoes from certified seed Wm. DeVree, Wayland, Mich.
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300 STRAWBERRY PLANTS, POSTPAID
150 Sen. Dunlap, 150 Warfield
HAMPTON & SONS, Bangor, Mich. \$2

Sowing Seeds in Hotbeds

By R. E. Loree of M. A. C.

WHEN using the manure-heated hot-bed for growing the early plants, no seed should be sown for several days after the manure has been placed in the bed. If a good grade of manure has been used the bed will heat very violently at first and it is not safe to sow seeds in the soil until this initial heating is over. It is a good plan to plunge a thermometer through the soil into the manure and as soon as the temperature has fallen to about eighty or eighty-five degrees Fahrenheit the bed is ready to plant.

The soil of the bed should be loosened and made as nearly level as possible. For growing lettuce or radishes to maturity, the seed should be planted directly in the soil of the bed. They should be sown rather thinly in rows about four to six inches apart. This will allow of thinning the seedlings and stirring the soil when necessary.

If the plants are to be grown for early transplanting, they may be started in the soil of the hot-bed, but it is better to start them in shallow boxes or flats. Flats slightly less than twelve inches wide and eighteen inches long outside measure, and about two and one-half inches deep, will be found convenient to handle and they will fit into the frames without leaving any waste space. When the flats are used, the seedlings can be taken to a warm place when they are ready for shifting and the work can be done more easily than when bending over the frame of the bed. The flats can also be shifted from one part of the frame to another and whenever necessary they can easily be transferred to cold frames where the plants are to be hardened in preparation for transplanting to the garden or field.

Some kinds of plants, such as melons and cucumbers, do not transplant readily, but if the seeds are planted in soil placed in some receptacle so that the plants can be transferred to the garden without disturbing the roots, much earlier crops can be secured. Commercial gardeners use special dirt bands extensively for this purpose. Old berry boxes, clay or paper pots, squares of inverted sods, or tin cans with the tops and bottoms melted off are also used.

A good soil for starting seeds and plants is made by composting sods and stable manure, but if a compost heap is not available, a satisfactory soil may be made by mixing together one part of well-rotted manure, two parts of good garden loam or rotted sods, and one part sand. These must be thoroughly mixed together by shoveling, after which the soil should be sifted through a screen before placing it in the flats or bands in which the seeds are to be sown.

The date of starting seeds in the hot-bed is governed by the date that the plants can be set in the open ground. Cabbage, cauliflower and lettuce are cool season crops and the plants may be set out as early in the season as the soil can be worked in good condition, but it is not safe to set out tomatoes, melons and other warm season crops until the soil is warm and all danger of frost is over. This is usually about May 20 in southern Michigan. As a rule, cabbage, cauliflower and lettuce may be started about six weeks before the plants will be needed for setting in the garden or field; tomatoes and peppers eight weeks; egg plant, celery and onions about ten weeks; melons and cucumbers, four to six weeks.

Michigan Fruit Farm Notes

By L. B. Reber

THE Michigan Farmer says, "Remember, fertile fields are not made in a day," and it sure says a mouthful. I have been four years building up part of my place so that pig weeds will grow among the cultivated crops. No doubt many farmers consider pig weeds a nuisance but we chortle with glee on our farm when a field begins to grow them. How come that pig weeds always come in whenever you spread manure, although there had not been a pig weed there for years?

I notice that many people write in about sick hens. I have some local reputation as a successful chicken man and I plumb hate to confess, but I got mine the same way last fall. Every hen and rooster in the flock had the same symptoms--eyes swelled shut, watery discharge from eyes and nose, black spots on combs and cankered sores on tongue and in throat. I killed one, two died and I saved the others; here is what I did. I mixed kerosene and lard about half-and-half in a tin can. Each bird was caught, a feather pulled from the wing and dipped in the mixture. With the feather, I swabbed out the mouth, running the feather down the throat, and swabbed the head eyes and all, thoroughly. No doubt it hurt their eyes as they wiggled some. This had to be repeated in severe cases. Results, I saved the flock and they completely recovered. At present they are breaking their own record in egg production; we have eaten several of the young roosters and the bodies dressed clean and nice with an excess of fat.

The fruit articles in our paper have a special interest for me. Here is one thing the sod mulch people overlooked.

The apple region of New York state made a careful survey covering a number of years and found that trees on sod produced fifteen per cent less fruit and about twenty per cent more imperfect fruit than the cultivated trees. Nuff said, now listen to me blow a little.

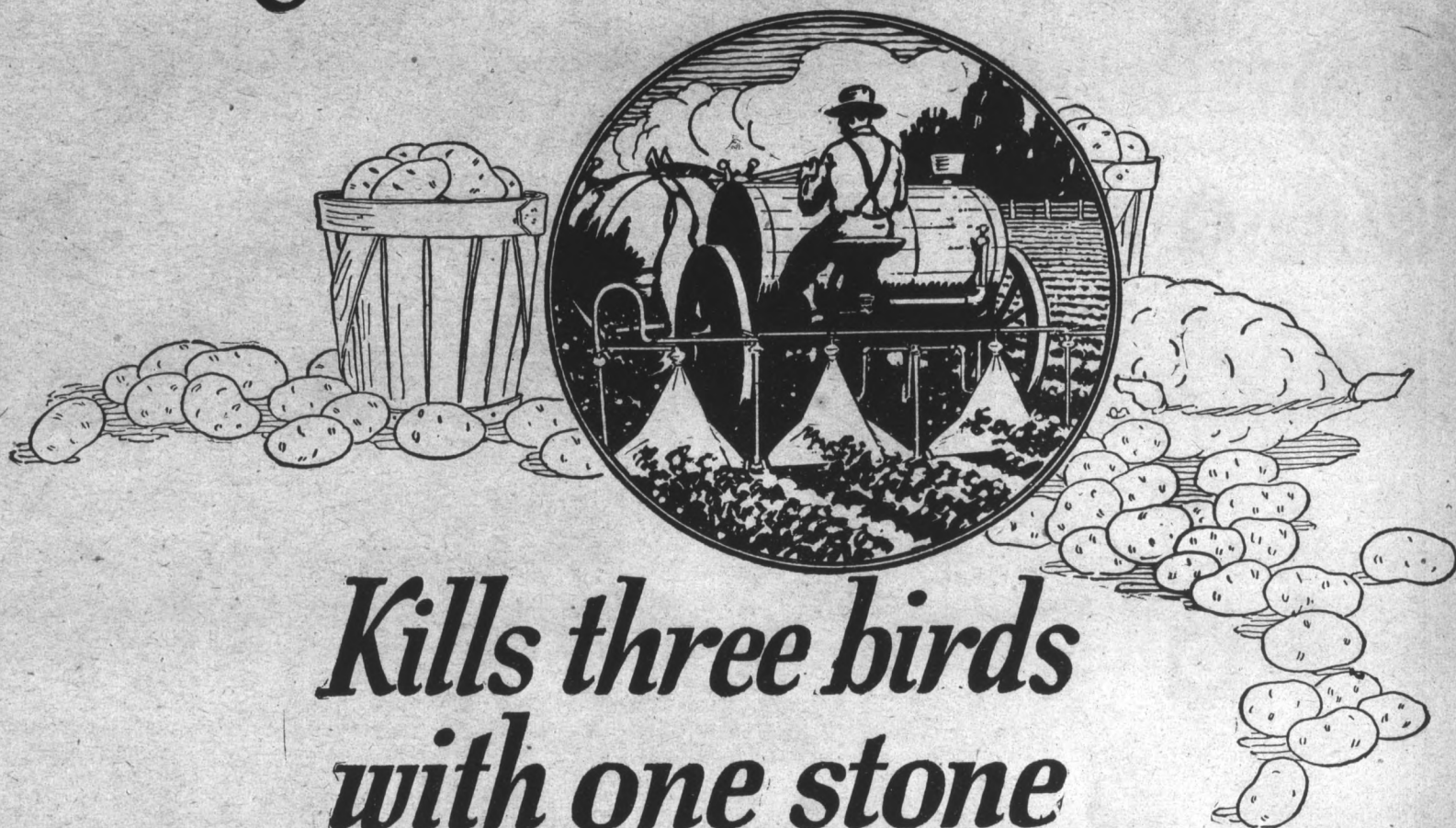
The fruit value in Berrien county for 1920 was \$6,272,500. One shipping point--Coloma--shipped 973 carloads during the fall months and this does not include the thousands of cases of berries shipped earlier. Berrien produced one-fourth of all the fruit grown in Michigan. Van Buren, Oceana, Allegan, Mason and Kent led all other counties in the order named. In addition to this, thousands of cases of canned fruit have been shipped out or locally consumed. You see, brother, you rye, potato, and bean men can't do all the blowing on the Michigan horn though you have just cause for pride. Just one more proof that Michigan is the banner state of the Union.

Say folks, don't get excited every time you see a robin or blue bird. Many summer birds winter over with us in the denser thickets and these are the ones you see. You better let the Porous Knits repose among the moth balls until near corn planting time.

I note an Illinois man proudly claiming that he saw a Cardinal bird that far north. Shucks! They are fairly common around here in dense thickets. We have begun to trim the raspberries and soon will come that worst of all jobs, spraying. When you use lime-sulphur solution, be sure to grease your hands. Last year I wore cotton gloves which became wet with spray solution

(Continued on page 400).

Pyrox for Potatoes



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Holton Tractor for sale, late model, complete with plows, used slightly for experimental purposes only; excellent condition; bargain at \$300 terms or \$700 cash. Eclipse Counterbore Co., 7410 St. Aubin Ave., Detroit, Mich.

Homespun Chewing or Smoking Tobacco—5 lbs. \$1.25, 10 lbs. \$2.50, 20 lbs. \$4.50. FARMERS UNION, Mayfield, Ky.

HOMESPUN TOBACCO, smoking or chewing. Collect on delivery, 5 lb., \$1.50; 10 lb., \$2.50; 20 lb., \$4.50. FARMERS' ASSOCIATION, PADUCAH, KY.

HOMESPUN SMOKING or chewing tobacco, 5 lbs. \$1.25; 15 lb. \$3. Send no money, pay when received. FARMERS' ASSOCIATION, Jonesboro, Ark.

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Michigan's Senior Senator

A Review of His Activities in Washington

SENATOR CHARLES E. TOWNSEND, Michigan's Senior United States Senator, who will complete his second term in the United States Senate on March 4, 1923, is chairman of the Senate Committee on Post Offices and Post Roads, one of the very important committees of the senate. He is also ranking member of the Committee on Interstate Commerce, and owing to the long and serious illness of Senator Cummins, the chairman of this committee, Senator Townsend for nearly eight months acted as chairman of this committee and during that time put through the railroad partial payment bill, held hearings on the pending funding bill, and other extended hearings relative to railroad matters. During his first term in congress he sprang into national prominence through the passage of his bill through the house of representatives amending the interstate commerce law prohibiting rebates, passes, etc.

While he was in the house he had charge of President Roosevelt's policies on railroad matters. He saved to the state of Michigan one item alone more than \$90,000 in interest claimed by the government from the state on the St. Mary's Canal proposition. He is also a member of the Committee on Pensions and Committee on Printing.

Senator Townsend is also author of the national highway bill for which he has been fighting, the past three years, and on November 9, 1921, it was signed by President Harding, releasing for federal-aid roads the sum of seventy-five million dollars, which amount will go far towards relieving the unemployment situation now confronting the country.

Senator Townsend introduced and secured passage of a resolution authorizing the President to enter into agreement with Canada and Great Britain for joint construction of a waterway for ocean-going vessels from the Great Lakes to the Atlantic, via the Welland Canal and the St. Lawrence River. The Great Lakes-St. Lawrence Tidewater Association in the council of states at a meeting of the Tidewater Congress at Detroit, Michigan, July 22, 1920, said:

"Senator Townsend has been called the Father of the Lakes-to-Ocean Undertaking. He was first in this generation to initiate proposals for the development of this route and he has been steadfast and powerful in its advocacy. His address before the Great Lakes-St. Lawrence Tidewater Congress was one of the convincing presentations of this project at that notable gathering. He did not outline an economic argument—he gave vivid utterance to the American spirit of enterprise and international comity."

If this great project can be carried through—as it will be some day—it means more to the agricultural and industrial development of Michigan than can be measured in words.

From the beginning of the World's War and up to the present time—it is undoubtedly true that no man in the United States Senate has interested himself in more cases for transfer, promotion, discharge, allotment and allowances, insurance or compensation for the ex-service boys than has Senator Townsend. The boys of Michigan all know this and appreciate it accordingly.

He has prepared, introduced and secured the passage of many private pension bills for the soldiers of the Civil War, and has aided thousands of Michigan's old G. A. R. men in expediting their claims at the Pension Bureau. Their appreciation of his efforts has been voiced in many kindly letters received from the various posts scattered throughout the state.

Thousands of letters have been received from the post office clerks, post masters, city and rural carriers, not only from Michigan but from all over the United States expressing their deep appreciation for the interest shown, time consumed and the hard, effective work done by Senator Townsend for resolutions introduced and agreed to, for amendments to the postal laws for the betterment of postal service and conditions, for bills drawn up and passed, all tending to increase efficiency, living wages and better feeling. Many resolutions adopted at conventions, national and state associations have been received by Senator Townsend for his good work for the post office boys.

Senator Townsend entered the house of representatives at the beginning of the fifty-eighth congress, on March 4, 1903, as representative from the Second District of Michigan. During the time he served in the house and senate he has delivered about one hundred speeches and entered into many debates upon the floor of the two houses whenever a subject was up that vitally concerned the proper consideration of state or national legislation.

His provision appropriating \$10,000 for the investigation of the production of American sugar beet seed is long since a statute, and instead of buying seed abroad as all heretofore has been bought, it will be and has been produced in the United States.

During Senator Townsend's career in the two houses he has voted and spoken in favor of the following bills and amendments which are now in force: Providing for the direct election of United States Senators. Constitutional amendment permitting the taxation of incomes. The Children's Bureau Bill. The Workman's Compensation Bill. Woman's suffrage amend to the Constitution.

He was a member of the committee which framed the child labor law. He has repeatedly appeared before the Interstate Commerce Commission and plead for the interests of the shippers and chambers of commerce in his home state.

He has voted and spoken for scores of amendments in the interest of economy. He voted in favor of the recent anti-medical beer bill.

He introduced a resolution on September 26, 1921, to amend the standing rules of the senate, by what is known as "The Cloture Rule" to expedite business of the senate, but owing to the necessity of a two-thirds vote was unable to bring about its favorable consideration. He has also spoken for, and aided in enacting into law the following bills, all of which are of direct benefit to the agricultural interests of the country: The Cooperative Marketing Law. Grain Standard Acts. Federal Farm Loan Act, and many beneficial amendments. The Capper-Tincher bill to regulate future trading. Increased annual appropriation for agricultural experiment stations. An act for cooperative agricultural extension work. Act to enable secretary of agriculture to investigate and report upon the organization and progress of farmers' institutes and agricultural schools. Act for acquiring and diffusing among the people of the United States useful information on subjects connected with the marketing and distributing of farm and non-manufactured food products.

Act to make investigation relating to the transportation, storage, preparation, marketing, manufacture and distribution of agricultural food products. Act directing the War Finance Corporation to take certain action for the relief of the present depression in the agricultural sections of the country. Act for preventing the manufacture, sale or transportation of adulterated, or misbranded, or poisonous, or deleterious foods.

Act for the investigation of soils in cooperation with other branches of the department of agriculture. Act to provide that there shall be in

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the year 1925, and once every ten years thereafter, a census of agriculture and live stock, which shall show the acreage of farm land, value of domestic animals, etc.

Act providing that labor, agricultural and horticultural organizations shall be exempt from taxation.

Emergency tariff bills.

During my three years' stay in Washington I have come to regard Senator Townsend as one of the most able, influential and useful members of the senate. He is no novice as a legislator. He is one of the hardest and most conscientious workers in the senate. Senator Townsend is a persuasive and powerful debater, and has learned the art of confining his oratorical efforts to matters directly before the senate and consumes none of the time of his colleagues and no space in the congressional record with useless speeches. He is so earnest in his efforts to have the senate confine its attention to matters immediately before it that it has become almost a passion with him.

Senator Townsend understands thoroughly the needs of the agricultural sections of the country and has given valuable support to the various measures designed to restore agricultural prosperity. Honest, courageous and able, his influence has increased with the length of his service until he is recognized as one of the leaders on the republican side of the chamber. His career has justified the confidence the people of Michigan have repeatedly shown in him.—ARTHUR CAPPER.



Sudan Grass and Soybeans Grow Well in Oakland County.

DOES IT GET COLD IN UPPER MICHIGAN?

THE annual summary of weather conditions in Michigan has recently appeared from the Lansing office of the United States Weather Bureau. For those who think that the people of the upper peninsula suffer from very great cold in the winter season, it may be of interest to call attention to some of the thermometer readings under the heading of lowest temperatures for the year 1921. From this table it appears that the lowest temperature in Marquette was 3; for Menominee, 8; for Sault Ste Marie, 10; Escanaba, 5; Houghton, 10; Munising, 16; Mackinac Island, 4. These points are located on the lake shore, but at widely separated points. In the interior lower temperatures were experienced: At Iron River, 25; at Iron Mountain, 15; at Ironwood, 17; Ishpeming, 15; Newberry, 9. We may compare these figures with lower peninsula points, and get such results as these: At Mt. Pleasant, the lowest temperature was 5; at Howard City, 5; Big Rapids, 2; Lansing, 3; Detroit, 9; at Saginaw, 4; Grand Rapids, 8 above zero.

Says Sam: Some fellows can see more on a Sunday afternoon tramp through the woods than others can see on a tour of Europe.

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In the OilPull the problem of producing cheapest power for farm work has been solved, by combining the Four Vital Factors. These are: (1) Lowest Fuel Cost. (2) Lowest Upkeep Expense. (3) Longest Life. (4) Reasonable Price.

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OATS—"Burt's Heavyweight" Test 38 lbs. per bu. Also Early SEED CORN. Get our low price, samples and catalogue. THEO. BURT & SONS, Melrose, Ohio

MICHIGAN FRUIT FARM NOTES.

(Continued from page 396).

and got some deep burns which healed very slowly.

Well, I'm just rarin' to get holt of the plow handles, but wife notices that I can sit mighty still when I get the last copy of our paper. Whoever wrote "The Blind Man's Eyes" must have been paid by the mile. The villain still pursues her and the end is nowhere in sight. It's mighty interesting, though. If Brother McCune preached at our church I sure would go to church. The clock just struck bedtime and Hy Syckle says the clock is boss, so good-bye, folks, come over and see us.

THE ANNUAL BEARING ORCHARD.

ONCE in a while we read arguments against the planting of more fruit trees, which are based on the fear that there will be an over-production of the standard fruits. A study of agricultural conditions cannot lead to the opposite conclusion. Go where you may in regions adapted to the production of apples and peaches especially, and you will find a large number of bearing orchards falling rapidly into decay and thousands of young trees dying from neglect and the want of proper care.

The last census states that from 1909 to 1919 there was a decrease of 36,057,811, or 23.8 per cent of the total number of apple trees of bearing age. The decrease in non-bearing trees was 29,620,244, or forty-five per cent of the total. In the case of peaches there was a decrease of 30.5 per cent in trees of bearing age, and of 48.8 per cent in non-bearing trees. The facts are, then, that new plantings are not sufficient to take care of the mortality.

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Being twice as fine as flour particles, Dosch Dusts penetrate out-of-the-way places on foliage and crop and then, with the aid of a special sticker material, they stick like glue.

They destroy the diseases and insects that hurt your crops. Dosch Dusts are chemically correct. The various combinations made for practically every kind of crop and enemy are the result of years of investigation, research and experience. We are specialists in the control of your profit-destroyers.

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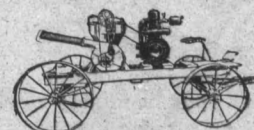
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MICHIGAN FRUIT FARM NOTES.

(Continued from page 396).

and got some deep burns which healed very slowly.

Well, I'm just rarin' to get holt of the plow handles, but wife notices that I can sit mighty still when I get the last copy of our paper. Whoever wrote "The Blind Man's Eyes" must have been paid by the mile. The villain still pursues her and the end is nowhere in sight. It's mighty interesting, though. If Brother McCune preached at our church I sure would go to church. The clock just struck bedtime and Hy Syckle says the clock is boss, so good-bye, folks, come over and see us.

THE ANNUAL BEARING ORCHARD.

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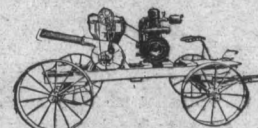
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THE BLIND MAN'S EYES

By William MacHarg and Edwin Balmer

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"Harriet!" he pleaded with her. She steered the car on, recklessly, her heart thumping with more than the thrill of the chase. "They're the men who tried to kill you, aren't they?" she rejoined. The speed at which they were going did not permit her to look about; she had to keep her eyes on the road at that moment when she knew within herself and was telling the man beside her that she from that moment must be at one with him. For already she had said it; as she risked herself in pursuit, she thought of the men they were after not chiefly as those who had killed her cousin but as those who had threatened Eaton. "What do I care what happens to me, if we catch them?" she cried.

"Harriet!" he repeated her name again.

"Philip!"

She felt him shrink and change as she called the name. It had been clear to her, of course, that, since she had known him, the name he had been using was not his own. Often she had wondered what his name was; now she had to know. "What should I call you?" she demanded of him.

"My name," he said, "is Hugh."

"Hugh!" she called it.

"Yes."

"Hugh—" She waited for the rest; but he told her no more. "Hugh!" she whispered to herself again his name now. "Hugh!"

Her eyes, which had watched the road for the guiding of the car, had followed his gesture from time to time pointing out the tracks made by the machine they were pursuing. These tracks still ran on head; as she gazed down the road, a red glow beyond the bare trees was lighting the sky. A glance at Hugh told that he also had seen it.

"A fire?" she referred to him.

"Looks like it."

They said no more as they rushed on; but the red glow was spreading, and yellow flames soon were in sight shooting higher and higher; these were clouded off for an instant only to appear flaring higher again, and the breeze brought the smell of seasoned wood burning.

"It's right across the road!" Hugh announced as they neared it.

"It's the bridge over the next ravine," Harriet said. Her foot already was bearing upon the brake, and the power was shut off; the car coasted on slowly. For both could see now that the wooden span was blazing from end to end; it was old wood, swift to burn and going like tinder. There was no possible chance for the car to cross it. The girl brought the machine to a stop fifty feet from the edge of the ravine; the fire was so hot that the gasoline tank would not be safe nearer. She

gazed down at the time-marks on the road.

"They crossed with their machine," she said to Hugh.

"And fired the bridge behind. They must have poured gasoline over it and lighted it at both ends."

She sat with one hand still straining at the driving wheel, the other playing with the gear lever.

"There's no other way across that ravine, I suppose," Hugh questioned her.

"The other road's back more than a mile, and two miles about." She threw

"Miss Santoine!" Dibley cried.

"We think the men went this way," she continued.

"Did you see any one pass?" Eaton challenged the man.

"In a motor, sir?"

"Yes; down this road in a motor."

"Yes, sir."

"When?"

"Just now, sir."

"Just now?"

"Not five minutes ago. Just before I saw the bridge on fire here."

"How was that?"

"I live there just beyond, near the

ness. "You're sure there weren't any more, Dibley? Think; be sure! There weren't three more or even one more person hidden in the tonneau of the car?"

"The tonneau, sir?"

"The back seats, I mean."

"No, sir; I could see into the car. It was almost right below me, sir. My house has a room above; that's where I was sleeping."

"Then did you watch the men with the water?"

"Watch them, sir?"

"What they did with it; you're sure they didn't take it to the rear seat to give it to some one there. You see, we think one of the men was hurt," Eaton explained.

"No, sir. I'd noticed if they did that."

"Then did they put it into the radiator—here in front where motorists use water?"

Dibley stared. "No, sir; I didn't think of it then, but they didn't. They didn't put it into the car. They took it in their bucket with them. It was one of those folding buckets motor people have."

Eaton gazed at the man. "Only three, you are sure!" he repeated. "And none of them seemed to be hurt!"

"No, sir."

"Then they went off in the other direction from the bridge?"

"Yes, sir. I didn't notice the bridge burning till after they went. So I came down here."

Eaton let the man go. Dibley looked again at the girl and moved away a little. She turned to Eaton.

"What does that mean?" she called to him. "How many should there have been in the machine? What did the want with the water?"

"Six!" Eaton told her. "There should have been six in the machine, and one, at least, badly hurt!"

Dibley stood dully apart, staring at one and then at the other and next to the flaming bridge. He looked down the road. "There's another car coming," he announced. "Two cars!"

The double glare from the headlights of a motor shone through the tree-trunks as the car topped and came swiftly down a rise three-quarters of a mile away and around the last turn back on the road; another pair of blinding lights followed. There was no doubt that this must be the pursuit from Santoine's house. Eaton stood beside Harriet, who had stayed in the driving-seat of the car.

"You know Dibley well, Harriet?" he asked.

"He's worked on our place. He's dependable," she answered.

Eaton put his hand over hers which still clung to the driving wheel. "I'm going just beside the road here," he

Plowing in the Spring Time

By LeRoy W. Snell

There are joys that come to humans in all seasons of the year.

There are tasks that each likes better than the rest.

But turning up the furrows when the early spring is here

Is the task that sort o' suits my spirit best.

When I have old Jim and Nora hooked up to the old red plow,

And I get them lining straight across the lot.

Where the meadow lark is singing and the bob-o-link just now,

Is a handing out the swellest song he's got.

Where the early bees are buzzing and the odor coming from

The ground is smelling sweeter than a rose.

While the sun keeps getting warmer 'til the sweat it starts out on

My forehead and comes trickling down my nose.

There's the Plymouth Rocks and Leghorns all atrailing 'long behind,

And the youngsters hunting fishworms with a zest.

Oh! of all the happy labors that God gives to human kind.

Seems as if this sort o' suits my spirit best.

in the reverse and started to turn. Hugh shook his head. "That's no use."

"No," she agreed, and stopped the car again. Hugh stepped down on the ground. A man appeared on the other side of the ravine. He stood and stared at the burning span and, seeing the machine on the other side, he scrambled down the slope of the ravine. Eaton met him as he came up to the road again. The man was one of the artisans—a carpenter or jack-of-all-work—who had little cottages, with patches for garden through the undivided acreage beyond the big estates. He had hastily and only partly dressed; he stared at Eaton's hurt with astonishment which increased as he gazed at the girl in the driving seat of the car. He did not recognize her except as one of the class to whom he owed employment; he pulled off his cap and stared back to Eaton with wonder.

"What's happened, sir? What's the matter?"

Eaton did not answer, but Harriet now recognized the man. "Mr. Blatchford was shot tonight at father's house, Dibley," she said.

road. I heard my pump going."

"Your pump?"

"Yes, sir. I've a pump in my front yard. There's no water piped through here, sir."

"Of course. Go on, Dibley."

"I looked out and saw a machine stopped out in the road. One man was pumping water into a bucket for another."

"Then what did you do?"

"Nothing, sir. I just watched them. Motor people often stop at my pump for water."

"I see. Go on."

"That's all about them, sir. I thought nothing about it—they wouldn't wake me to ask for water; they'd just take it. Then I saw the fire over there—"

"No; go back," Eaton interrupted. "First how many men were there in the car?"

"How many? Three, sir."

Eaton started. "Only three; you're sure?"

"Yes, sir! I could see them plain. There was the two at the pump; one more stayed in the car."

Eaton seized the man in his intent-

AL ACRES—Al's Experiment Shows That He Can Feed The World, Alright.

—By Frank R. Lee



said to her, quietly. "I'm armed, of course. If those are your people, you had better go back with them. I'm sure they are; but I'll wait and see."

She caught at his hand. "No; no!" she cried. "You must get as far away as you can before they come! I'm going back to meet and hold them." She threw the car into the reverse, backed and turned it and brought it again onto the road. He came beside her again, putting out his hand; she seized it. Her hands for an instant clung to it, his to hers.

"You must go—quick!" she urged; "but how am I to know what becomes of you—where you are? Shall I hear from you—shall I ever see you?"

"No news will be good news," he said, "until—"

"Until what?"

"Until—" And again that unknown something which a thousand times—it seemed to her—had checked his word and action toward her; made him pause; but nothing could completely bar them from one another now. "Until they catch and destroy me, or—until I come to you—as you have never known me yet!"

An instant more she clung to him. The double headlights flared into sight again upon the road, much nearer now and coming fast. She released him; he plunged into the bushes beside the road, and the damp, bare twigs lashed against one another at his passage; then she shot the car forward. But she had made only a few hundred yards when the first of the two cars met her. It turned to its right to pass, she turned the same way; the approaching car twisted to the left, she swung hers to oppose it. The two cars did not strike; they stopped, radiator to radiator, with the rear wheels locked. The second car drew up behind the first. The glare of her headlights showed her both were full of armed men. Their headlights, revealing her to them, hushed suddenly their angry ejaculations. She recognized Avery in the first car; he leaped out and ran up to her.

"Harriet! In God's name what are you doing here?"

She sat unmoved in her seat, gazing at him. Men leaping from the cars, ran past her down the road toward the ravine and the burning bridge. She longed to look once more in the direction in which Eaton had disappeared, but she did not. Avery reached up and over the side of the car and caught her arm, repeating his demand for an explanation. She could see, turning in her seat, the men who had run past surrounding Dibley on the road and questioning him. Avery, gaining no satisfaction from her, let go her arm; his hand dropped to the back of the seat and he drew it up quickly.

"Harriet, there's blood here!"

She did not reply. He stared at her and seemed to comprehend.

He shouted to the men around Dibley and ran toward them. They called in answer to his shout, and she could see Dibley pointing out to them the way Eaton had gone. The men, scattering themselves at intervals along the edge of the wood and, under Avery's direction, posting others in each direction to watch the road, began to beat through the bushes after Eaton. She sat watching; she put her cold hands to her face; then, recalling how just now Eaton's hand had clung to hers, she pressed them to her lips. Avery came running back to her.

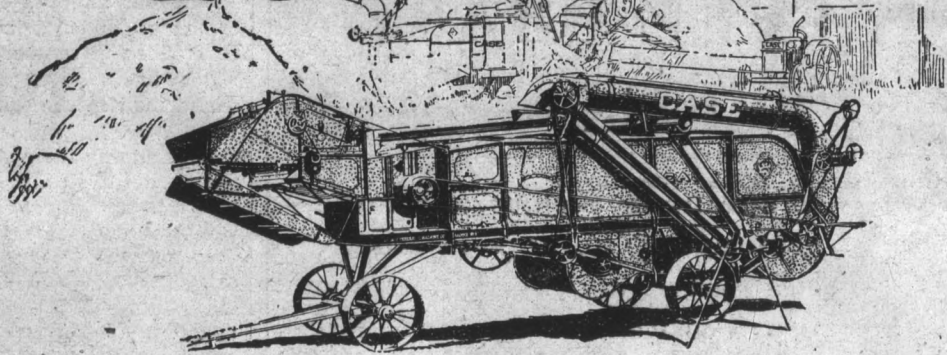
"You drove him out here, Harriet!" he charged. "Dibley says so."

"Him? Who?" she asked coolly.

"Eaton. Dibley did not know him, but describes him. It can have been no one else. He was hurt!" The triumph in the ejaculation made her recoil. "He was hurt and could not drive, and you drove him out"—his tone changed suddenly—"like this!"

(Continued on page 405).

ECONOMY



THRESHING TIME is payday on the farm. After your long season of hard work, nothing less than full payment is going to satisfy you. Whether your crop be grain, rice, peas, beans, peanuts or any other that requires threshing, you can collect full pay—the whole crop—by using a Case Thresher. That is their first and greatest economy.

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The Case dealer will tell you all about Case Threshers, Kerosene Tractors, Silo Fillers, Baling Presses, Road Machines, Grand Detour Plows, and Disk Harrows. See him, or address a post card to

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(Established 1842)

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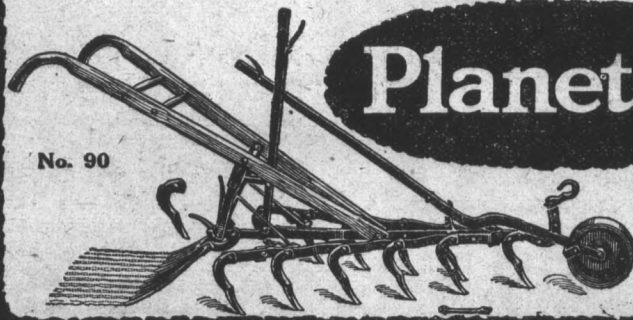
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A Galilean Clinic

Our Weekly Sermon—By N. A. McCune

IN the tenth chapter of Mark's gos-
pel there occurs the story of Bar-
timaeus and the cure of his blind-
ness. One could not improve on Mark's
description of the cure. The old blind
beggar had evidently heard of the won-
derful man in the north country, who
was healing people. Tales of blind
men regaining their sight, of paralyzed
people getting on their feet again, of
lepers being restored to their families,
would naturally travel far and they
would travel fast, too, even in those
days of slow communication. Perhaps
some night as a company of beggars
(Palestine was full of them, and is
yet), sat under a



tree and talked
over the day's re-
ceipts, the name
of this wonder-
worker was men-
tioned.

"O," thinks Bar-
timaeus, "Could I
but come in con-
tact with him!
But it is not my
luck. I've been
blind since child-
hood and I suppose I always will be."
But one day something happens. He
hears a crowd passing by. His ear,
accustomed to all the sounds of the
road, can tell whether it is a man, a
donkey, a camel, or a company, that
is passing. He inquires what it is all
about. "Jesus the Nazarene is passing
by, on his way to Jerusalem," they tell
him. Instantly he realizes that his
chance has come, and he must act
quickly, or the great healer will be
gone. He yells at the top of his voice,
"Jesus, Son of David, help me!" He
makes so much noise that they tell
him to be still. He is too loud. But
he shouts the harder, "Son of David,
pity me, help me!" To his unspeak-
able joy, he told that the Master has
stopped and asks that he be brought
to him. He flings away his old cloak,
as if he would never need it again,
and literally leaps to his feet. "What
do you want?" he is asked. "Rabboni,
I would like to regain my sight." "Go,
your faith has cured you." As the
blind man leaps to his feet and comes
forward, or is led forward, he is burst-
ing with expectation.

HE is going to be healed of his life-
long disease. Will he be disap-
pointed? Is any one ever disappoint-
ed who comes in expectation to the
Lord of Life? They do not always get
what they ask, there is no doubt about
that. As has been said, God does not
always answer the prayer, but He al-
ways answers the man. We may not
always get the thing we ask, but we
get God, and that is an answer. Why
is it that coming to Christ with a defi-
nite request is so satisfying an act?
Why do so many people pray? Is it
not because Christ is God, as one
might say, in available form?

Put it this way: Here is a field that
is badly run down. It lacks humus,
fertility. Corn can not restore the fer-
tility, or potatoes, but suppose the
farmer sows clover. Clover has the
power of drawing nitrogen from the
air, and depositing it in tubercles on
the roots of the clover. When this is
plowed under, there is a vast amount
of nitrogen that is made available to
the crop that will be planted. God
seems far away. Often He appears
very vague, dim, uncertain, a Being we
know comparatively little about. But
Christ is God in available form. We
do know about Christ. He lived at a
definite time in a definite place. He
had definite experiences of which we

have records. In Him, God is made
available to us, Bartimaeus found
it so.

BARTIMAEUS was happy in know-
ing exactly what he wanted. When
he was asked what he desired there
was no hesitation. The heart-hunger
of many people is as deeply felt as
Bartimaeus felt his blindness. But it
is more difficult to express one's feel-
ings. There is a longing for some-
thing, we know not precisely what.
There is an emptiness waiting to be
filled. Sometimes a man and his wife
will be stopping over Sunday in a
strange city. Sunday morning they go
to church. They know no one, all is
strange. Very likely they hunt up a
church of their own denomination,
where they may worship. Why? Be-
cause there is the memory of a fine,
satisfying, religious experience some-
where in the past, which they had had
in a church of this denomination, and
they want to have it repeated as near-
ly as possible. While there is not the
physical need that Bartimaeus had,
the soul need is as great.

"Thy faith hath saved thee." Of
course, it is unnecessary to ask what
faith is, because everyone knows. You
have faith in a doctor, in a certain
kind of tire, in a certain make of trac-
tor. But Faith is confidence in any-
thing. Christian faith is belief in
Christ as Savior and Redeemer. And
when one says, that he has been sav-
ed, what does that mean? The old
idea that we used to hear about so
often, was to escape hell, and go to
heaven. Did the old-time preacher
thunder on that to much? Perhaps
so. Does the modern preacher thunder
on it too little? Perhaps so. Just
what is meant by the "hell," we are
not able to say. If we are right in
our ideas of it, it does not refer to
physical, literal bames, or a burning
lake, for, if man becomes a spirit after
death, physical torment would have no
effect on him. The idea is probably to
be found in that of conscience, re-
morse. This is the most terrible pun-
ishment there is. Read "Doctor Faust-
us," by Marlowe, to get a picture of
remorse, or "Macbeth," or "Richard
III," by Shakespeare, or the story of
Judas. Added to this is the fact of
separation from God, utter and com-
plete separation from God. This is
probably what is meant in the state-
ment that Christ "tasted death for ev-
ery man." He came to the terrible
depths on the cross where He thought
that even God had forsaken Him.

BUT we must not think that this ex-
hausts the meaning of "save." This
is but one phase of it. The New Test-
ament has at least two other mean-
ings. One is, to restore to health, and
the other meaning is, to make one
whole, to fill anew with life, to rejuve-
nate the soul. What is a saved man?
He is the whole man; he is not one-
sided, mean, narrow, bigoted. He has
completeness of soul, which God has
implanted there. He is the healthy
man. The holy man is the whole man.
He is blest with fullness of life. In
fact, there is no adequate conception
of a saved person that does not carry
with it the conception of having a new
and dynamic life.

The Christian life is the new life.
The Christian person is a person with
a new and refreshing inner experience.
It is more than having a ticket that
takes one to Heaven. The ticket is
good and valuable, but there is work
to do before one will need his ticket.

The man who uses a scrub bull de-
serves a leather medal made out of
the bull's hide.

THE BLIND MAN'S EYES.

(Continued from page 403).

For the first time since she had left the garage she was suddenly conscious that she was in her night-dress with only a robe and slippers. She drew the robe quickly about her, shrinking and staring at him. In all the miles she had driven that night with Eaton at her side, she never for a moment had shrunk from her companion or thought how she was dressed. It was not the exaltation and excitement of what she was doing that had prevented her; it went deeper than that; it was the attitude of her companion toward her. But Avery had thought of it, and made her think of it, at once, even in the excitement under which he was laboring.

He left her again, running after the men into the woods. She sat in the car, listening to the sounds of the hunt. She could see, back of her, in the light of the burning bridge, one of the armed men standing to watch the road; ahead of her, but almost indistinguishable in the darkness, was another. The noise of the hunt had moved further into the woods; she had no immediate fear that they would find Eaton; her present anxiety was over his condition from his hurts and what might happen if he encountered those he had been pursuing. In that neighborhood, with its woods and bushes and ravines to furnish cover, the darkness made discovery of him by Avery and his men impossible if Eaton wished to hide himself. Avery appeared to have realized this; for now the voices in the woods ceased and the men began to straggle back toward the cars. A party was sent on foot across the ravine, evidently to guard the road beyond. The rest began to clamber into the cars. She backed her car away from the one in front of it and started home.

She had gone only a short distance when the cars again passed her, traveling at high speed. She began then to pass individual men left by those in the cars to watch the road. At the first large house she saw one of the cars again, standing empty. She passed it without stopping. A mile farther, a little group of men carrying guns stopped her, recognized her and let her pass. They had been called out, they told her, by Mr. Avery over the telephone to watch the roads for Eaton; they had Eaton's description; members of the local police were to take charge of them and direct them. She comprehended that Avery was surrounding the vacant acreage where Eaton had taken refuge to be certain that Eaton did not get away until daylight came and a search for him was possible.

Lights gleamed at her across the broad lawns of the houses near her father's great house as she approached it; at the sound of her car, people came to the windows and looked out. She understood that news of the murder at Basil Saintoine's had aroused the neighbors and brought them from their beds.

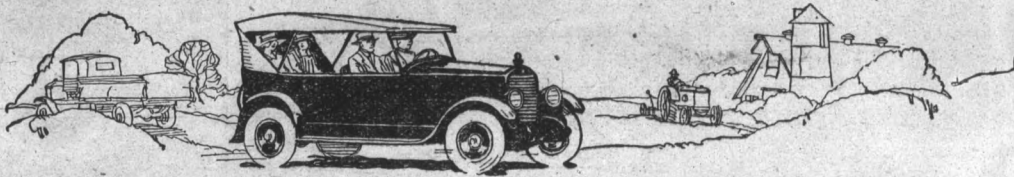
As she left her motor on the drive beside the house—for tonight no one came from the garages to take it—the little clock upon the dash marked half past two.

(Continued next week).

SUNSHINE HOLLOW.

Uncle James Cooley thinks the old saying that "cows give milk" causes much misunderstanding of the dairy business. He sweats all summer raising feed for them. Then he takes away some milk in the morning before sunrise. Then he comes in tired at night and has to take away some more. He says cows never "give milk." You got to help them make it and then take it away from them.

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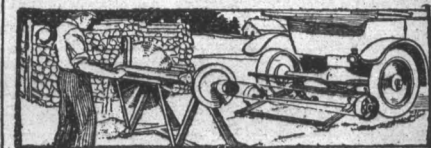
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Best varieties of Spring and Everbearing plants. Write for price list. Geo. B. Owens, Box 353, Leslie, Mich.

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Woman's Interests

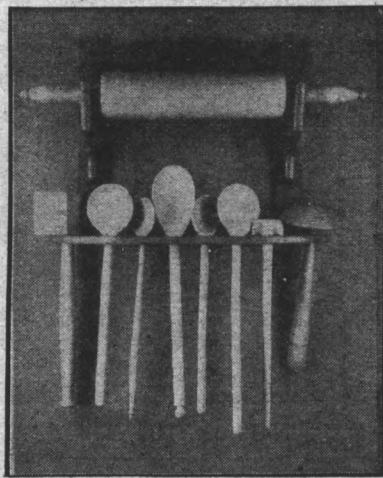
The School Lunch

By Nelle Portrey

THE vacuum lunch kits are a great advantage where it is impossible or impractical to serve hot lunches, as children need at least one hot drink or dish for lunch, especially during the winter months. These lunch kits usually have removable aluminum trays for salad, puddings or preserves. However, if this sort of lunch kit is not available, folding fibre lunch boxes may be procured for a small sum.

Lunch cloths or napkins should, of course, be provided. Paper napkins may be used for the purpose. They are inexpensive and lessen the work on washday.

We keep all cold cream, vaseline and similar small jars for packing the lunch boxes. They make excellent receptacles for custard, sauce, preserves, salads and puddings, the screw tops preventing the contents from spilling.



A Unique Arrangement for Convenience and Order in the Kitchen.

Small-sized aluminum salt and pepper shakers are handy and cost but little.

Loaves of bread baked in baking powder cans or other tall cans, are excellent for sandwiches. They take but little extra time to make and are always a delight to the children. Little individual pans, shaped like bread pans, but smaller, may be obtained at any five and ten cent store or at a variety store. Cakes baked in these are handier to pack than slices of cake and do not crumble so easily, little chicken or meat pies may also be made in them.

A little variety in food should be afforded from day to day, as a child soon tires of the same food prepared in the same way. The main part of the lunch should, of course, be the sandwiches. Two varieties of these should be prepared. These need not necessarily have meat filling as there are other foods more easily digested by the growing boy or girl, than meat.

Hard-boiled eggs are an old standby with many mothers. Boiled for the usual length of time these are exceedingly hard to digest. During the first half hour of the boiling they become tough. It is at this stage that they are generally taken from the fire. They should be boiled for about two hours, at the end of which time they are tender and as easily digested as though soft-boiled. Mashed fine with a fork and seasoned to taste with salt, pepper and cream, they make fine filling for sandwiches.

An unusual sandwich may be pre-

pared by chopping nuts and seedless raisins together, moisten with cream and spread between lightly buttered slices of bread.

Brown bread cut in thin slices, buttered, and spread with mashed beans and salad dressing, makes an unusual and substantial sandwich.

Brown bread spread with peanut butter and some kind of a tart fruit jam is also delicious.

Many other delightful and unusual fillings will suggest themselves if you give a little thought to the subject.

Left-over cake icing may be used as sandwich filling between square crackers.

Next in importance to the sandwich, comes the vegetable or salad. Salmon, potato, cabbage, corn or apple may be used. Here is where the little jars come into play.

Potatoes are good, and also convenient to carry if baked in the shell. Select large, smooth potatoes for this purpose. Bake until soft, then take from the oven, split lengthwise and remove the potato from the shell. Mash well and season to taste. Put back in the shells and put dots of butter over the top. Brown lightly in the oven.

Last, but not least, comes the dessert. This should consist of cake, cookies, very occasionally some kind of pie, and fruit of some kind.

Cupcakes or cakes baked in muffin or gem pans do not dry out so quickly as slices of cake. Plain or colored fondant candy may be melted, to ice the little cakes. The candy may be put in a bowl and set over the teakettle. When melted, dip the tops of the cakes in. They will harden quickly and what is left of the icing may be kept for the next time.

Oatmeal cookies and cookies with raisin filling are a pleasant change from the usual molasses, cream or drop cookies.

Tiny pies baked in shallow gem pans are nice and are handier to carry than pieces of larger pies.

Apples seem to be the favorite fruit for school lunches. A handful of raisins are a welcome change.

AID TO AN ORDERLY KITCHEN.

A RACK for holding the most used kitchen utensils is easily made by anyone possessing a hammer and nails, and an augur for boring holes in the cross-piece through which the handles of spoons, forks, etc., are slipped.

The collection illustrated is entirely of wood. Note the beef pounder, an almost indispensable tool for the cook who likes flour pounded into roast or steak.

Next the potato masher at the other end of the rack is an old country egg beater. These are manipulated by taking the handle between the palms of both hands and rolling it back and forth. Foreign women can beat egg whites to a froth with these much more quickly than they can with our rotary egg beaters.

Wooden spoons are especially good for mixing salads and in chafing dish suppers. They are also valuable in stirring acid foods which might act on the metal of the ordinary mixing spoon.

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You Know Of—

We know of one Gilt Edge Furnace that has been in service for 40 years, others that have served faithfully for 25 or 30 years. Write us about the oldest Gilt Edge Furnace you know of, still in operation. Tell us the year it was installed, the size of the home, what satisfaction it has given, what repairs it has needed, if any; what features of the furnace are liked best.

Make your letter as long as you want to. Write it your own way; the story is the thing that counts. Write your letter today, get it in among the first. Start it now, aim at one of the big cash prizes.

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No. 3591—Ladies' Dress. Cut in seven sizes, 34, 36, 38, 40, 42, 44 and 46 inches bust measure. A 38-inch size will require 3 3/4 yards of 54-inch material. The width of the skirt at the foot is two yards. Price 12c.



No. 3529—An Attractive Apron. Cut in four sizes: Small 34-36; medium 38-40; large 42-44; extra large 46-48 inches bust measure. A medium size will require 3 1/2 yards of 36-inch material. Price 12c.

No. 3551—Ladies' Dress. Cut in six sizes, 34, 36, 38, 40, 42 and 44 inches bust measure. A 38-inch size will require 5 1/4 yards of 44-inch material. The width at the foot is about two yards. Price 12c.

EAT MORE LETTUCE.

LETTUCE is an excellent food for the nerves. It should be eaten freely the year round if possible. Lettuce should be planted early, and as fast as one bed is used up, or the lettuce begins to get old, another should be put in. By this means, crisp, tender lettuce can be had from very early in the season until very late in the fall.

Transplant the young plants of the head lettuce so that they do not sit too close together in the ground. Fine firm heads will result. Lettuce is delicious and beneficial served with oil, vinegar, salt and pepper, or with vinegar and sugar, or with mayonnaise dressing.

As the basis of a salad, it is unexcelled. Fruits, vegetables, meats, or combinations of these will make a delicious salad which can be prepared in a few moments with a bed of lettuce, and a bottle of dressing at hand. Leftovers may be used up nicely, and the emergency shelf may contain just such canned goods as salmon, pineapple, crab meat, shrimp, lobster, or other suitable supplies.

Pineapple Salad.—Lay a drained slice of canned pineapple on a bed of crisp lettuce. On the center of this, place a small ball of cottage cheese about the size of a large walnut. The cottage cheese should have been nicely seasoned with melted butter and salt. Garnish the cheese with half of a walnut meat, or a maraschino cherry. Or use a home-canned cherry stuffed with the nut meat, or two strips of red sweet pimento laid in a cross.

LOOK PALE, PLEASE.

WHEN you go to be photographed remember that rosy cheeks will look hollow in the picture. If you are pale, do not make the mistake of "touching up" your face with rouge, as the paler you are the better you will look in the photo. This leads to a hint for the double-chinned lady. A line of rouge run under the chin from where the fullness starts to where it leaves off on the other side will materially lessen the fullness in the photo.

MARRIED WOMEN MAY TEACH.

THE board of education of Detroit has decided not to exclude women from its staff of teachers just because they are married. A resolution to exclude married women was recently introduced, but was voted down.

A WOMAN FIRE FIGHTER.

HOW would you like to be a forest lookout for Uncle Sam. It sounds romantic, but if it meant to spend the hours of each day alone in glassed-sided house lashed with cables to a boulder on the mountain top, do you think you'd try it? This is the job Miss Lorraine Lindsley, a Wyoming University student, picked out, after the government forest service had been unable to find a man who would stick to the job.

Miss Lindsley lives in a lonely mountain cabin, miles away from the nearest settler, and at a point on the mountain where most climbers give up because the ascent from there on is too hard. Every morning she starts out and climbs 1,500 feet farther up, enters her "glass cage" and with a powerful pair of field glasses keeps a constant lookout for forest fires. It is a lonely life among the rocks, without grass or flowers and devoid of animal life, yet Miss Lindsley finds it quite to her liking. She is the first woman in Wyoming to be employed as a forest lookout, and the second in the United States.



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No. 3878—Boy's Suit. Cut in four sizes, 6, 8, 10 and 12 years. A 10-year size requires 3 3/4 yards of 27-inch material. Price 12c.

No. 3884—Girl's Dress. Cut in four sizes, 6, 8, 10 and 12 years. A 12-year size requires three yards of 44-inch material. Price 12c.

No. 3875—Child's Set of Short Clothes. Cut in five sizes, 1, 2, 3, 4 and 5 years. Size four requires for the dress, 2 3/4 yards; for the petticoat, 1 1/2 yards; for the combination, 1 1/2 yards of 36-inch material. Price 12c.



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Over 46,000 graduates. The only place where you can learn by the Sweeney System of Practical Experience. No experience needed. We use tools, not books. Learn the auto business NOW—but learn it right.

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South Dakota wires: "Will pay most any price for good man; send him right away." Neck City, Mo., says: "Put us in touch now with a first class repair man. Excellent opening." Indiana says: "Want one more Sweeney man for my new garage. Steady work at good prices." Kansas appeals: "Send me a man who understands a Ford Car from A to Z. Will pay top wages." Mississippi wires: "Want a post graduate mechanic. Will pay all he is worth. Wire at my expense." Florida calls: "Want a head mechanic. Will pay \$50 a week. Let me hear by return mail." Thousands of Sweeney graduates now owning their own businesses in various parts of the country naturally favor Sweeney trained men. Sweeney loyalty is wonderful. Our daily mail is conclusive proof that the trained man with a Sweeney Diploma can secure jobs like these.

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Our Boys' and Girls' Page

How I Made My Corn Crop

By Quentin Freidhoff, Champion Corn Grower

DURING my last term of club work (corn club) I failed to take anything in the line of prizes, which gave me a great determination to win something this year, just to show the other boys that I could grow corn.

I had my half-acre plat plowed and harrowed early in the spring. I had put barnyard manure and commercial fertilizer in the soil in order to make a better yield.

I bought a peck of pedigreed Pickett's Yellow Dent corn and planted it May 21. Luck followed me and I did not have to replant. It was not long before the fertilizers began to show on the corn. I cultivated my plat three times with a one-horse cultivator, going twice in a row.

The week before the Boys' and Girls' Club Week I got real industrious as I was to have this week off, and hoed my corn, leaving it very nearly free

county fair and next I sent an exhibit with the rest of the club boys of our community, to the Louisiana Fair, this exhibit next to go to the Chicago Hog and Grain Show at Chicago. As yet the boys are unaware of the details of their exhibits of our club.

I am planning to enter the club again next year with greater zest and determination to grow better corn. With the best of wishes for all clubs and club work for the coming year.

Cost of Acre of Corn.

	Cost.
Work of self and team, 9 hrs.	\$ 2.10
Hoeing, 8 hrs.	1.60
Planting, 2½ hrs.	.25
Cultivating, 4 hrs.	.80
Gathering crop, 11 hours.	2.20
Rent of land (half-acre)	2.50
Cost of commercial fertilizer.	2.90
Cost of barnyard manure.	8.75
Cost of seed	2.50
Total cost of producing a half-acre of corn	23.60

Estimated Value of Corn From Acre.

	Value.
Bushels corn on half-acre, 73.	\$34.45
Seed corn, 8 bu.	22.00
Shelled corn, 48½ bu.	51.68
Market value of common corn when cribbed, 54c per bu.	39.32
Market value of seed corn, same time at \$2.75 per bu.	22.00
Value of all corn.	56.45
Value of corn fodder.	17.28
Profit on acre of corn.	50.13
Cost of producing corn.	32½c

ATTENTION GIRLS' CANNING CLUBS.

SPECIAL prize money will be offered at the International Live Stock Exposition for the champion girls' demonstration canning club team in the United States, \$50 going to the blue and \$25 to the reserve champions. The national contest will be open to the winning canning teams from each section where champion state teams will compete for sectional honors. These contests will be held at Springfield, Mass.; Sioux City, Iowa; Portland, Oregon; Atlanta, Georgia; Pueblo, Colo.

In addition there will be \$25 in prize money offered to individual girl club members in a free-for-all judging contest of canned products, the same being divided into three prizes. These offerings are being made possible by the Hazel Atlas Glass Company, of Wheeling, West Virginia. Additional prizes are being arranged for through the offices of the National Committee on Boys' and Girls' Club Work, 1113 Garland Building, Chicago.

What is it that is invisible yet is never out of sight?—The letter "I."—Boys' Life.



The Cup that Quentin Won.

from weeds. Although I spent much time among my corn I failed to thin it out, thus lessening the yield.

I had a fairly good stand of corn of unusual growth for this variety of corn. I was quite proud of my stand, but my pride fell, through a terrific wind and rain storm that occurred about a week later. The corn was driven to the ground like that much grass. My plat being near the house enabled the poultry to get their share of the corn, thus damaging it to a great extent.

Early in the fall the corn began to ripen and as our school was a week late in starting I cut and husked the corn. I was much surprised as well as elated to find that my plat yielded me seventy bushels of corn. I picked out eight bushels of seed corn which our county agent promised to sell at a good price.

I won first prize on corn at our



Garment Making and Other Winter Club Activities Are About Over and Summer Projects Are in Preparation.

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Our 11th year.
S. C. Brown Leghorns, English type White Leghorns.
GREAT LAYERS.
Large White Eggs.

100% safe arrival guaranteed.

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Get the BIG PROFITS, with BABY CHICKS that are PURE BRED

Place with us AT ONCE, your order for Baby Chicks. Our supply is limited and we refuse to sell anything but our OWN STOCK, so we advise to not delay. Buy from Michigan's largest practical Single Comb White Leghorn Egg, Pullet and Broiler Farm. We supply every egg that goes into our incubators from our own strain of BRED TO LAY UTILITY S. C. White Leghorns and have a few thousand surplus chicks to spare at certain periods of the season. We GUARANTEE each customer ABSOLUTE SATISFACTION. Write NOW for interesting PRICES, before placing your order elsewhere. Drop us a Post Card TODAY. Chicks delivered at your door by Parcel Post Free. 100% ALIVE

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From "Pedigree" sired "culled" flocks of English and American SCW Leghorns. Flocks rated best in Mich. Bar'd Rocks. Free catalog. **OTTAWA FARMS, Grand Rapids Michigan**

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We have bred our flocks for heavy egg production for many years. We now have the finest flocks in this vicinity. Buy chicks from the largest chick producing center in the world. Leading varieties—Leghorns and Anconas. Send for catalog. **JAMESTOWN HATCHERY, Jamestown, Mich.**

DAY OLD CHICKS

Order your Baby Chicks now from selected heavy laying strain. Single Comb White Leghorns, English strain Brown Leghorns, Anconas, Reds. Send for price list. **Hillcrest Hatchery, R. 2, Holland, Mich.**

CHICKS. Eng. White Leghorns, S. C. Brown Leghorns, Anconas, Barred Rocks, from heavy egg producing stock or free range, 100% live arrival guaranteed, send for prices. **Bakers Hatchery, Jamestown, Mich.**

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BABY CHIX Match and April Delivery. Rocks, R. I. Reds, Black Minorcas, White or Brown Leghorns 25 for \$5.50, 50 for \$10.00 or 100 for \$17.00 parcel post prepaid. 100% live delivery guaranteed. Our 12th year producing the kind of chick that please. Get our prices in 500 or 1000 lots. **GREEN LAWN POULTRY FARM, Route 3, Fenton, Mich.**

FOR Sale choice Barred Rock cockerels and pullets, 1 cks. \$3, and \$4 and pullets \$2, two \$5. Good large birds. **George H. Campbell, R. 5, Ypsilanti, Mich.**

Barred Rock. Hatching eggs from Parks 200-egg strain from stock direct from Parks best pedigreed pens. \$2 per 15, \$6 per 50, \$12 per 100. Prepaid by parcel post in non-breakable containers. No chicks for sale. **R. G. KIRBY, Route 1, East Lansing, Mich.**

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S. C. English White Leghorns. Bred from heavy egg producing strain from our own free range poultry farm. Circulars free. **VILLAGE VIEW POULTRY FARM, R. 3, Zeeland, Mich.**



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High quality baby chicks from heavy laying strains. Prize winners at leading state fairs. 35 best breeds. Prices very reasonable. **CRYSTAL POULTRY FARM, 7902 Franklin Ave., Cleveland, Ohio**

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Hatching eggs from Park's Pedigreed Selected Stock \$2.00 per 15. Prepaid by P. P. Booking orders for day old chicks. **W. T. Richardson, Hanover, Mich.**

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Chicks From "Michigan's Old Reliable Hatchery." S. C. White Leghorns, (3 grades). Anconas, White and Barred Plymouth Rocks and Reds. Fine strong, sturdy chicks from Grand, bred-to-lay Hens, free range breeders. Prepaid by mail, 100% alive on arrival. Sold on guarantee to satisfy or money back, 15,000 every week, 14th season. Get my low price and valuable illustrated 1922 free catalogue, and place your order where you get your money's worth. Write **W. Van APPELDORN, R. 7, Holland, Mich.**

100,000 Chicks 12c & Up. Of pure bred finest egg directly from laying and exhibition contest winners hatching eggs. Ducklings. Catalog, 20 varieties. Early bookings avoids disappointment. **Beckman Hatchery, 26 E. Lyon, Grand Rapids, Mich.**

BRED-TO-LAY R. O. Brown Leghorn eggs \$1.50 for 15 or \$5.00 per 100. **ARTHUR CLARKE, Alto, Mich.**

Read and Win Contest

By Uncle Frank

NOTHING pleases me so much as to get a lot of letters from my pals throughout the state, and this week was a record-breaker. I am only sorry that I cannot give a personal reply to all the friendly letters I received.

In this contest even more than the other, some interesting things developed. For instance, in answer to question No. 9, a great many said that Al Acres or Hy Syckle were as interest-

Spelling Contests

THIS week I am going to ask you to pick out all the incorrectly spelled words on the first ten pages of this paper. Give correct and incorrect spelling and the page on which the word was found. The number of incorrectly spelled words found, and neatness of arrangement, will be the chief consideration in awarding the prizes. Five boys or girls presenting the best papers receive a dollar each. Send all your letters to Uncle Frank, care Michigan Farmer, Detroit, Mich. Contest closes April 6.

ing as a comic supplement. I am sure that Al and Hy appreciate the compliments, but the answers were incorrect. Many others gave the radio and the agricultural motion picture as answers to No. 9.

In fact, No. 9 brought more interesting answers than any other question. Edith Wyrtaalla comes across with "Nothing is as interesting as a comic supplement." Which shows that she enjoys a little fun.

Ruth L. Bell and several others answered No. 9 by saying, "Looking for the answer to these questions." Clara Nutall said, "contests, puzzle corners, and correspondents' corners." I hope that others agree with Clara, as we are going to include all these features in our Boys' and Girls' Department.

Bertha Strickfaden showed a very laudable ambition when she said, "Belonging to a club when learning how to raise the best pig or the best acre of corn is as interesting as a supplement." Dorothea Hitzeman also showed good thought when she gave "something to take care of" as her answer.

One young man whose name I lost mentioned a farm radio club in his reply to question nine. I rather think his suggestion is worth thinking over.

Question No. 8 is what caused the most of the girls to lose out, because in most every case they answered the question by the two words, "acidity superlative." Some very neat papers

had to be eliminated because of the answer to this question. While this answer was correct as far as a word reading of the article is concerned, it did not indicate that the writers got the thought conveyed.

Arthur Lincoln and several others sent in typewritten replies. Arthur asked whether typewriting is permitted. I enjoy the easy reading of typewritten letters, but to allow them in this contest would be unfair to those who endeavor to neatly write their papers by hand. One girl asked whether her hand writing would count against her, it being difficult for her to write. In reply to this, I will say that I try to judge this part of the letters by the effort that has been made toward neatness and care in writing. Some people cannot write as good a looking hand as others and it would be unfair to discriminate against them entirely.

Several mentioned in their letters that they do not hope to win a prize. It is much better to enter these contests, or any of life's contests, where worthy objects are to be obtained, with a great determination to win.

If I have not mentioned your name, please do not think that I have not read your letter. Your turn will come if you keep coming.

The Correct Answers.

Following are the correct replies to the questions in the March 18 contest:

1. The seller of the farm. Page 10.
2. One hundred pounds ground oats, fifty pounds wheat bran, thirty-pounds beef scrap. Page 31.
3. Equal parts of glycerine and alcohol. Page 27.
4. Elberta. Page 8.
5. Hot foot baths. Page 21.
6. The demonstration of 225 potato club members. Page 28.

The Winners

THOSE who were fortunate enough to win a dollar in our March 8 contest, are as follows:

Ruth Ackerson, of Goodrich, Michigan.
Minnie Brown, R. 1, Harbor Springs, Michigan.
Marshall Hyde, of Freeport, Michigan.
John O. Roberts, R. 2, Breckenridge, Michigan.
Clifton Lether, of Pittsford, Michigan.

This time the boys won out because it seems they succeeded better in getting the real meaning of Question No. 8.

7. Pasteurized apple cider. Page 17.
8. Acid soil. Page 5.
9. "Village Life in China." Page 22.
10. On farms. Page 13.

Our Letter Box

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

Dear Uncle Frank:

I think this is a very good thing for us all to do because every time we look up a question it teaches us something more.—Edith Rees, Wheeler, Mich.

I want to commend you upon your motive in looking up these questions.

Dear Uncle Frank:

When I read the article about the contests I was disappointed to find that I missed the seventh question.

I noticed that the answers are to be judged for conciseness as well as neatness. So I have made these answers brief. My second set of answers were neat but not as brief as I could have made them with less work.

"Whatever is worth having is worth working for."

Will close with best wishes to you and your pals.—Helen Moerdyk, Oshetemo, Mich.

You would have been a winner but for Question No. 8. Your paper was very neat. Just keep trying.

Dear Uncle Frank:

I would be tickled to death if I should happen to win a prize, because I never have in all my sixteen years. I have no faith in getting anything for nothing.—Doris Benson, Ironwood, Mich.

Please don't think that you are getting something for nothing if you get a prize, as you have worked for it. Neither are you unrewarded if you do (Continued on page 415).

DR. HESS Instant Louse Killer

Kills Lice on Poultry and Stock

Use it on your lousy hens and chicks—your lousy colts, horses and cattle. You'll get better chicks—bigger, better fowls—more eggs—better contented stock.

Chicks are apt to be lousy now. Give them a chance. Sprinkle Louse Killer into the feathers, about the coops, on roosts, in nests of laying and setting hens. Always keep Louse Killer in the dust bath. For lousy horses and cattle, colts and calves, stroke the hair the wrong way and sift in Louse Killer.

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ANCONAS Eggs, Chicks. Demonstration Plock. Vaccine treated and Trap nested. STANLEY FEASEL, Kansas, Ohio.

ANCONAS "Superior Quality" baby chicks and fertile eggs from M. A. C. selected 250 egg strain hens, mating list free. MANNINGS ANCONA FARM, Coldwater, Mich.

DAY OLD CHICKS
White Leghorns \$15 per 100; \$8 for 50; and \$4.25 for 25. Barred and White Rocks, White Wyandottes and Rhode Island Reds \$17 for 100; \$9.00 for 50; and \$4.75 for 25. Order from this ad, terms cash with order. Custom hatching 5c per egg, hatchery capacity 9600. Hatchery 4 miles east of Mt. Morris on Mt. Morris road one mile north and one east. Valley Phone No. 14-5. ROSS WADE, Prop. Meadow Brook Hatchery, Mt. Morris, Mich.

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59 hens laid 170 eggs in Jan. Eggs \$2.00 per 15; \$10 per 100.
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CHICKS

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Box 28, Holland Mich.



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S. C. Anconas and S. C. White Leghorns. Be sure and get description and prices of our stock before you order. Catalog free.

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Route J4, Zeeland, Mich.



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Anconas and White Leghorns. High grade stock only. Bargain prices. Send for free circular and price list.

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Baby Chicks

FOR 1922

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R. 12, KNOLL HATCHERY,
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You take no risk in buying "Continental" chicks—guaranteed in quality, breed, safe delivery—everything. Big, husky chicks that grow faster—by earlier. All breeds; 260 to 300 egg strains. Shipped anywhere, prepaid. Send for catalog and prices. Continental Hatcheries, Box 232, Springfield, O.

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Barron White Leghorns—heavy laying strain—Barred Rocks, R. I. Reds. Highest quality, pure bred, free range stock at prices usually asked for ordinary chicks. Catalogue.

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Barred Rocks, W. Wyandottes, R. I. Red cockerels from bred-to-lay stock. **HOWARD GRANT,** Marshall, Mich.

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Buy Chicks Where Quality Counts. All my flocks culled. You get chicks from nothing but best layers. Safe arrival guaranteed by prepaid parcel post. Ask about 8-week pullets. **HERMAN J. COOK, 133 W. Main St., Zeeland, Mich.**

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We can save you money on our CHOICE STOCK. Bred to lay, free range, English Strain White Leghorns, Brown Leghorns and Anconas. Also hatching eggs and Pullets. Be sure to ask for our prices on this Choice Stock, today. We pay the postage, guarantee satisfaction and 100% live arrival.

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\$13.95 Buys 140 Egg-Champion Belle City Incubator

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East of Rockies and allowed to points West With this **Guaranteed Hatching Outfit** and my Guide Book for setting up and operating, your success is assured. Save time—Order now—Share in my \$1000 in Prizes

Or write for Free Poultry Book, Hatching Facts, etc. **Belle City Incubator Co.** Box 14 Racine, Wis.

130 Egg Incubator and Brooder

Freight Paid east of the Rockies. Hot water—copper tanks—double walls—lead air space—double glass doors—shipped complete, all set up ready to use.

180 Egg Incubator and Brooder - \$22.00
250 Egg Incubator and Brooder - \$30.00
Made of California Redwood—last a lifetime. Positively the best value on the market today. Order the size you want direct from this ad. 30 days trial—money back if not pleased. If not ready to order now, don't buy until you get our 1922 catalog.

WISCONSIN INCUBATOR CO. Dept. 92 Racine, Wis.

150 EGG Incubator

Made of California Redwood, asbestos lined, covered with galvanized iron—built to last for years; triple walls, deep chick nursery, hot water heat, copper tanks. Shipped complete, set up, ready to run, freight paid.

150 EGG INCUBATOR WITH BROODER \$19.75
260 EGG INCUBATOR, ALONE, ONLY \$20.25
260 EGG INCUBATOR WITH BROODER \$28.75
30 days' trial—money back if not O. K.—FREE Catalog **Ironclad Incubator Co., Box 71, Racine, Wis.**

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.

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Sick Baby Chicks? GERMOZONE is a positive remedy for roup, colds, bowel trouble and such costly ailments. Preventive as well as curative. A wonder worker for poultry. On market over 20 years. Endorsed by many thousand users. Don't lose your baby chicks. Get GERMOZONE TODAY. At drug and seed stores. If no dealer, order by card. 75c and \$1.50 sizes. Postman will collect. No extra charge.

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HA! HA! CHICKS

Buy Hi-grade Profit Paying Bred-to-Lay Chicks. From tested egg strain. Best foundation stock ever produced. Hatching eggs, ducklings, 10 varieties. Or stamps appreciated. **Laurence Poultry Farm, R. 7, Grand Rapids, Mich.**

Day Old Chicks, S. C. White Leghorns. They are from the big, thrifty, persistent producing stuff for which Macalwhite Poultry Yards are becoming noted. We know we can give you satisfaction. Send for our circular. **Macalwhite Poultry Yards, Cato, Mich.**

Farm Poultry

The Hatching of Turkeys

By N. Evalyn Ramsdell

THE turkey hen begins seeking a location for her nest some time before she is ready to lay, and if nests are provided for her in suitable places about the farm buildings and yards she will usually accept them.

I secure good-sized dry goods boxes and large barrels, such as salt barrels, and place them along the fence and in corners of the turkey yards. These are covered partially with brush or cornstalks to hide them and make them look attractive. A deep nest of hay or straw is made inside and a nest egg is provided. I also make nests inside, in each corner of the turkey

size of eggs and hens, but it is best not to have the nest too crowded at hatching time.

Incubators are sometimes successfully used in hatching turkey eggs but they require different methods of handling from chicken's eggs.

As a rule, the turkey hen will take proper care of herself while setting but occasionally there is one, especially among the pullets, that will take the matter too seriously, not being willing to leave the nest for food and exercise. These should be taken off and shut out from the nest twice a week and for at least twenty minutes each time. They will eat quantities of



A Practical Turkey House 4 1/2 x 3 1/2. Front 3 ft. 8 in. High; Back, 2 ft. 10 in.

sheds, leaning up boards to hide them. It is not unusual to have each of the four corners occupied by a setting turkey at the same time.

Eggs should be gathered every day and placed in a cool, well aired room, (never in a cellar), and turned occasionally if kept very long. Eggs can be kept three weeks and hatch well.

As I sell for breeding stock and want early hatching birds, I use only the first laying of eggs from each turkey hen. There are always more eggs than the turkeys can cover and some of them are placed under good reliable chicken hens but when they hatch they are given to the turkey hen to brood as she is the natural and best mother.

I manage to have them all hatch at about the same time (within two weeks if possible) as they develop better and are more easily cared for if they are all about the same age.

However, if one has a large range and time to give especial attention to those of different ages, a larger flock can be raised from the same number of birds. If the first hens laying are not allowed to set they will usually lay again in a very short time. The first eggs can be placed under chicken hens and before they are ready to hatch there are likely to be other turkey hens wanting to set. After "trying these out" on some nest eggs for a few days, to prove their worthiness, give them the eggs incubated by the chicken's pen. Even though she has been setting but a few days, she is ready to welcome the little poults when they hatch.

By hatching all remaining eggs in the same way, giving the poults to the last hens setting, one can usually manage to have turkey mothers for all. If each mother is given a large roomy house to shelter her brood she can nicely cover and care for sixteen to eighteen little ones.

I usually place about fifteen eggs under a turkey hen and nine under a chicken hen, depending, of course, on

grass, dandelions, etc., but do not seem to require much food. Give soft food or small grain (never corn) and see that they have access to fresh water.

SOME SUGGESTIONS ON GEESE.

I NOTICED in a recent issue of the Michigan Farmer the advice given to not keep over three geese with one gander.

Tell the lady who has four geese with one gander to keep them by all means, and then have the laugh on her neighbors. I have raised geese for at least twenty years out of the thirty I have lived on a farm, and have what I consider good success. A great many times I put six eggs under a hen and take off six goslings. Perhaps if I had only three geese with a gander I might get eight or nine.

With four geese and one gander, one year I sold fifteen eggs. Raised sixty-one geese to sell after the usual accidents. And then tell me to keep only three geese with one gander. To say the least, it makes me "tired."

To start the goslings I always put them with the hens where they can get grass. Then give separator milk to drink and bread soaked in milk to eat. Then feed bran and corn meal half-and-half, wet up with cold water, after they are two or three weeks old. Some bake a Johnny-cake out of corn meal and baking powder. Bake until real dry and then crumble up for the goslings. I am told they will grow real fast on this. But I have never tried it. But I do know they will grow very fast by using the separator milk and bread.—Mrs. F. L.

INBREEDING GEESE.

I have three geese, brother and sisters, of which I got twenty-two eggs. Would you please let me know if the geese would hatch?—H. K.

It is usually not advisable to inbreed geese so closely. More vigorous goslings are apt to result from unrelated

POULTRY

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GUARANTEED

To Please You

English type S. C. White Leghorns and S. C. Brown Leghorn Chicks from Hoganized heavy laying selected breeders. 10 years of careful breeding for egg production. Our chicks are hatched right and will grow right and are easy to raise. We guarantee satisfaction. Order now for March and April delivery. Prices very reasonable. Catalog free.

ROYAL HATCHERY

R. 2, Zeeland, Mich.

DAY OLD CHICKS

HOMESTEAD FARMS

Michigan people: Here is something in your own state to interest you. Let us send you a description of our Pure Bred Practical Poultry. Here is an egg producing poultry stock such as the farmer poultry-woman wants. It is proving out in actual eggs in the hands of the farmer poultry people who buy it.

White, Brown and Buff Leghorns; Anconas; Black Minorcas; Barred, Buff and White Rocks; Rhode Island Reds; Wyandottes; Orpingtons.

This stock is culled and bred on the plan of the state Agricultural College, and all the Hens in the Breeding Colonies are practical egg-producing Hens.

If you will send for a description and egg record of this Pure Bred Practical Poultry, you will find stock that it will pay you to buy. Buy Day Old Chicks this year and see the results you will get.

EIGHT WEEKS OLD PULLETS

We shall have 5000 Eight-weeks and Three-months Pullets to sell in May, June and July in all our breeds. Orders can be placed now for these Pullets. We will send you description and Price List.

STATE FARMS ASSOCIATION
Box A47, Kalamazoo, Mich.

Chick Prices Smashed

Beginning April first we will again reduce our chick prices. Send at once for our new low prices. Our chicks are from extra heavy laying hens and our chicks are healthy sturdy chicks, easily raised and will again grow into good layers. Do not lay this aside but order at once. We pay postage and guarantee save delivery.

City Limits Hatchery,
Holland, Mich.

Wouldn't You Rather Have Your Chicks HEN HATCHED?

It would not be practicable to set hens on 250,000 eggs, so we are putting them into Mammoth FRESH AIR Incubators that almost beat the old hen at her own game. All eggs from selected flocks and all hatched in BUOYER'S—the machine with the 3 BIG ELECTRIC FANS. Chicks not taken out and shipped till ripe and right, on the 22nd day. They are not cheap chicks, but cheap at the price. Compare them with the hen hatched kind.

	Mar. 27-30	April 3-6
B. P. ROCKS	\$17.00	18.00
R. I. REDS	17.00	18.00
W. WYANDOTTES	19.00	18.00
H. P. ORPINGTONS	19.00	18.00

Add 50c for 1/4 and 3/4 hundreds. 100% live delivery guaranteed. Mailed post paid. All buckeye hatched in forced draft ventilation. Strong, fluffy, lively chicks.

WASHTENAW HATCHERY, Ann Arbor, Mich.



BABY CHICKS

Eight leading Standard Varieties. Every chick from pure bred, healthy, carefully selected stock. We are not jobbers. We personally know what we are selling. Delivered at your door, parcel post prepaid. 100% live delivery guaranteed. Catalogue free.

MUNCIE BABY CHICK CO.,
Lock Box 274, Muncie, Indiana

A Good Place

to buy your S. C. White Leghorn baby chicks. Because we hatch from our own stock only. Large vigorous free range stock that have been bred for eggs, and vitality for several years. We ask a trial order at our very low prices. It will convince you they are right in every respect. And will give you your future business. Also some good Rocks and Reds. Ask for catalogue.

SUPREME POULTRY FARM,
R. 2, Fremont, O.

100,000 Reliable Chicks for 1922

Of quality, real value for your money. Anconas, Brown Leghorns, American and English White Leghorn strains, with the long deep-bodied loop combed kind that lay the large white eggs, from Hoganized selected flocks. Post paid to your door at reduced prices. Get our information and price list free before you buy elsewhere.

PAUL DE CROOT, Prop.
Reliable Poultry Farm & Hatchery,
Zeeland, Mich., R. R. No. 1

Additional Poultry Ads. on Page 417

stock. However, as it is late to make a new mating and you have twenty-two eggs, I would advise trying to hatch them. The results may be fair. Early next winter I should plan on buying an unrelated gander for next year's work.

TUBERCULOSIS IN FLOCK.

Last year I now and then lost a hen. I did not know what sickness reduced our flock. I finally opened one after it died and I found the liver infected with white spots which felt gritty to the touch. Also some nodules to the intestines. I took it for granted then the disease was tuberculosis. From this infected flock I raised a hundred chicks. Kept the pullets and they began to lay fine in December, keeping it up till now. A day or two ago I noticed one of those pullets acting dopyish. I began to get scared, thinking the pullets are also infected with tuberculosis. I killed the pullet and I find the tuberculosis indications, spotted liver and nodules adhering to the intestines. The balance of the pullets are acting healthy and laying heavily. Would you advise me to sell the healthy acting flock for meat? The pullets were raised separately but went into the old henhouse when I sold the old hens late in the fall. This is tough as it is practically our only income now we receive from the eggs. Never had such fine laying flock. They are Reds.

—J. K.

It will be best to have a veterinarian make a personal inspection of your flock and make recommendations. Long distance advice is rather difficult in this case as it would not be fair to tell you to market a flock that are laying and seem healthy because one hen has died of a disease that you think is tuberculosis.

This disease is so serious that it is best not to breed from an infected flock. New stock should not be placed in the same house where an old flock has been until several months have elapsed and sunshine and commercial disinfectants have had a chance to clean up the trouble. If the pullets are laying well and only one has died it might pay you to use disinfectants and give the flock the best of care and see what happens. But I haven't seen the flock. Your veterinarian should be able to look over the birds and give you good advice.

HENS LOSE FEATHERS.

We have some White Leghorn yearling hens. On some of them the feathers are matted with dirt, mostly under the vent and on the breast, then under the wings and on the neck. The skin is clean but seems irritated and red. They are all in good health and laying, but are losing their feathers from this cause.—R. C.

If the condition of the feathers beneath the vent indicates bowel trouble it will pay to give the flock a dose of epsom salts in a moist mash at the rate of one-half teaspoonful of salts per hen.

Hens are also troubled with scabies caused by mites living at the base of the feathers. For such cases rub the irritated skin with a mixture of one part flowers of sulphur and four parts lard. If the hens are troubled with the common poultry lice it will pay to treat each bird with a mixture of equal parts of blue ointment and vaseline. Rub a bit beneath the vent and under each wing. If red mites are causing trouble paint the roosts with kerosene oil or one of the coal tar dips.

DAMPNESS KILLS THE HENS.

DAMPNESS is at the bottom of most poultry diseases, and poor ventilation in the henhouse is what causes dampness. The only way to have well-ventilated chicken houses is to build them right.

The proper house is of open-front construction, and deep. Plenty of light should be furnished from windows on the side as well as from the front.



BABY CHICKS

Best Laying Breeds on Earth

Barron English White Leghorns, also American White Leghorns, S. C. Brown Leghorns and Anconas, 25,000 large strong super-hatched chicks every week from Hogan tested flocks culled out Semi-annually by our Poultry Experts.

17 Years of Careful Breeding for Egg Production

You get the advantage of 17 years of careful breeding which brought our flocks up to their present High standard. Our wonderful winter layers are headed by large, vigorous and Pedigree sired males of exceptional quality.

Thousands of Satisfied Customers Make Big Money

Mr. F. L. Hess, Chicago, Ill., writes: "I averaged 112 eggs a day from 140 of your pullets and sold \$158.00 worth of eggs in February."

Mrs. Wyttenbach, Amherst, Ohio, writes: "I sold \$357.30 of eggs in two months from 200 pullets of your stock."

Raise Good Stock and Reap a Golden Harvest

Intelligent chick buyers of today do not take chances with ordinary stock. Our enormous output enables us to sell these money makers at a price that positively cannot be equaled.

We Ship Thousands of Chicks Each Year

Every shipment is sent by PARCELS POST PREPAID, and we guarantee 100% live delivery. Send for our illustrated catalogue and prices today, it's free.

Wingarden Hatchery, Box M, Zeeland, Mich.

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Bred-To-Lay from flocks selected for standard quality and production. We offer Exceptional values in following varieties: Leghorns, Rocks, Reds, W. Wyandottes, Orpingtons, Minorcas and Anconas. Our prices are right when quality is in consideration as this should be the main point in view. Get our big catalogue of Baby Chicks, Brooders & How to Care for Your Chicks after you have them, it is FREE, for the asking. Write today.

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All standard varieties.

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Box G, Covington, Ohio

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Price List. Prepaid to You. Purebred Stock.

	100	50	25
Wh. & Brown Leghorns	12.00	6.50	3.50
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Start the season right with chicks that can be depended upon to produce profitable heavy egg producing hens. Farm at Hudson, O. Mail orders to J. KREJOL, 2165 East 80th St., Cleveland, O.



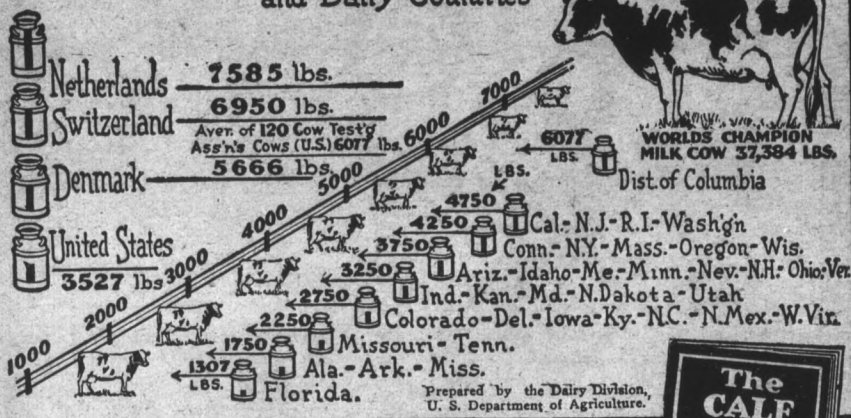
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Of the Average Cow in the United States
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Not More Cows—But Better Cows

Compare the average yearly milk production in the United States, of 3,527 lbs. per cow, with that of other countries shown above. You will see at a glance that one of the greatest means of increasing dairy profits is in obtaining better cows.

The cheapest and best way of getting better cows is to raise them. Use a good bull, keep the best calves from your best cows and raise them on De Laval skim-milk, which is a splendid feed when properly fed. In this way you can improve your herd at very little cost.

A De Laval Separator is valued chiefly because it separates cream—a cash crop—better, quicker, cheaper and without waste. But of almost equal importance is the skim-milk it gives, which will replace your present cows with better cows; or as Pren Moore of the University of Idaho says, "when fed to laying hens will bring you as much money as the original butter-fat," while it is without equal for growing pigs.

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An improvement found only on West Bend Barn Equipment. One lever locks in or releases from 2 to 50 cows instantly, and also operates cow-stops. Saves thousands of steps. Simple, practical and indestructible. Used on the best dairy farms everywhere. Our steel stalls, mangers, pens, litter carriers, ventilators, water bowls and other dairy barn necessities are your best investment. Get our

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Dairy Farming

I'LL GUARANTEE THIS TO CURE THE KICKING COW.

MANY a man has gone whistling out to the barnyard on a fresh, smiling spring morning; to come back grumbling—yes, and even swearing—and carrying several quarts of milk well distributed over his person, its snowy whiteness being in marked contrast to the shiny blue of his new spring uniform.

If you have a cow whose right hind foot just will not stay "put" but persists in being in the milk receptacle, try this:

Before going out to entertain your bovine friends procure a nice piece of green willow or other tough, green

to hook, kick or bite (and usually they lived up to the guarantee). I have yet to see it fail, and think of the hours of tying and fussing it saves, as well as the nervous energy usually wasted on the old nuisance of a kicker. Of course, you must not expect to have much milk the first time, and you may come out of the skirmish limping as badly as the cow, but don't give up.—J. L. FOWLER.

TUSCOLA HEIFER SETS STATE MILK RECORD.

A NEW state milk record for Holstein heifers between the ages of two and a half and three years has just recently been reported through

This May Require Some of Your Time But It Might Pay at That

YOU ought to spend ten minutes or a half-hour, or perhaps a day pondering the figures given below, and then, if you have scrub cows in your herd act in the direction which the figures point. These figures show the result of a carefully conducted Iowa experiment and can be depended upon as representing what might happen under any reasonable conditions existing upon the average dairy farm. Professor Gillette, of the above state, directed the work.

Here is what they did. Scrub cows were bred to a pure-bred Holstein bull and the daughters from this cross were bred to another pure-bred Holstein bull. Without doubt you will be interested in the performance of these three generations at the pail. The yearly production in pounds is as follows:

	Milk. Lbs.	Fat. Lbs.
Scrub cows	3,255	161
Daughters	6,313	261
Granddaughters	11,295	431

A little work with the pencil will show that the daughters averaged ninety-four per cent more milk and sixty-two per cent more fat than the mothers, and the granddaughters averaged 245 per cent more milk and 168 per cent more fat than did the scrub dams. The average production of dairy cows in Michigan is 3,874 pounds. This means that there are hundreds of thousands of cows producing no more than did these scrub cows used in the above experiment. Is your herd made up in whole or in part of this class of cows? How are you going to find out? Now, don't stop here, but keep right on thinking and then talk with your neighbor and the two of you go and lay the matter before your county agent for council.—B. W.

wood about an inch in diameter and a foot or eighteen inches long. Fasten the offending cow by your usual method at the head but do not tie her foot or use any kicking straps. Preferably, have a large room or corral where it will be possible to operate without getting stamped on. Then proceed to do the milking, being sure to start with an empty bucket (or pail). Dear Bossy will attend to the emptying the rest of this job.

When she kicks just thump her soundly—but not too severely as you could break her leg—across the "shin" of the offending leg. Every time she kicks rap her again in the same place (be sure and hit the shin of the offending member, not the head or the back or some other inoffensive place). Repeat every time she kicks or until you are through milking, and you will find that two or three milkings will cure the worst offenders.

Be careful to go about this in a cool, clear-minded way and "don't" get angry. Just make up your mind that she has got to quit it, even if she does limp a little. Don't worry if she does for you would limp, too, if someone pounded you over the shin; she really deserves a little limp for she'd cripple you if she could.

I have used this method on all kinds of cows from the small Jersey to real cows which were lassoed out of a herd on the western plains and guaranteed

the official bulletin published by the superintendent of advanced registry. This heifer is Eden White Rose, No. 528521, owned by George W. Ridgeman, of Vassar, Tuscola county, and she is credited with having produced in a seven-day test 609.5 pounds of milk and 21.696 pounds of butter-fat, equivalent to 27.12 pounds of butter, at the age of two years, eleven months, twenty-three days. Her milk production surpasses the best previous milk record in Michigan in that class by 11.4 pounds.

The sire of this heifer, Flint Korn-dyke Butter Boy, is a son of the well-known bull Maple Crest Korn-dyke Hengerveld, who has about ninety daughters with A. R. O. records, and twenty-two sons with tested daughters. Both Eden White Rose and her dam were bred by Mr. Ridgeman, who is a member of the Holstein-Friesian Association of America.

As an indication of what this amount of milk means, it may be noted that 609 pounds in a week is an average of eighty-seven pounds per day. Allowing a pint a day per person, this young heifer gave enough to supply eighty-seven people each day during the seven days of the test, which is a notable performance.

A farm sewage system costs less than a funeral.

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DROUGHT RESISTANT

Sow 2½
as much
GRIMM
per acre as
you would
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Are you wasting Time, Money, Labor and Seed each year due to the summer drought conditions? This is unnecessary if you use Genuine Certified GRIMM alfalfa. The summer drought is the greatest handicap for getting a catch of clover or common alfalfa. GRIMM seedlings are especially adapted to this condition and with the first rains in the fall revive and make vigorous growth before going dormant for winter. GRIMM is found growing on the desert producing seed, apparently, without water. Ten pounds evenly distributed of this genuine, certified, hardy, scarified GRIMM seed, sure to grow, is enough per acre. The seeding cost of genuine GRIMM is practically the same as common alfalfa and your returns are much greater.

Due to the vast amount of common alfalfa, or badly mixed lots sold on the market as GRIMM, many farmers have been hoaxed into raising poor or ordinary crops. On the other hand, from actual observation, users of GENUINE GRIMM are greatly increasing their profits and becoming more prosperous each year.

You will be assured success by sowing this spring CERTIFIED GENUINE GRIMM seed, produced by co-operative growers organizations under strict field and bag inspection. We are co-operating to make possible for you to get absolutely reliable GRIMM that will give results.

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Binder Twine



THIS mark on binder twine means that it is the genuine Rakco Brand—twine properly made of the finest quality Yucatan sisal. (Standard and White sisal.) Rakco Binder Twine is evenly spun; averages 500 feet to the pound; with average breaking strain of 80 pounds.

Packed in useful new burlap bags; tied with new half inch sisal halter rope.

Manufactured by the makers of the famous Rakco brand rope. Sold by most good dealers. If yours does not handle write to us.

THE R. A. KELLY CO., Xenia, Ohio
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A Crop of Weeds

is proof that soil is sour or acid.

It also indicates you should

Use LIMESTONE

to sweeten the soil and increase crop profits.

Write for prices.

The France Stone Co., Toledo, O.

BEE SUPPLIES

Beehives, Section Boxes, Comb Foundation, Smokers, etc. Also complete outfits for beginners. General agents for the A. I. Root Co. in Michigan. Beeswax wanted. Send for 1922 catalog.

BERRY SUPPLIES

"A" grade wood baskets—Wax lined paper baskets and 16 quart crates. Special postpaid offer for shipments within 150 miles of Lansing, as follows:

200 "A" grade baskets post paid	\$2.10
200 Waxlined paper baskets post paid	1.70
5 16 qt. crates post paid	1.10
10 16 qt. crates post paid	2.10

Send for price list, giving lower rates in larger quantities by express or freight.

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

FARMS FOR SALE at Muscle Shoals, Alabama.
JOHNSON & JOHNSON, Florence, Ala.

PURE-BRED DURHAM IS CHAMPION MOTHER.

CHARLES STRUCK, Brady township farmer in Saginaw county, living seven miles west of Chesaning, is the owner of a fourteen-year-old pure-bred Durham cow that is believed to be the champion mother cow of the world. During the past six years Bossie has given birth to two sets of quadruplets, three pairs of twins and one single. All lived except the quadruplets.

Twins were dropped in 1917, 19.9 and 1921, the quartets in 1918 and 1920. A bull born in 1916 weighed 150 pounds at birth. The 1917 twins were sold when one and one-half years old; at that time they weighed more than 1,100 pounds each, according to Mr. Struck.

Neighbors verify these statements in regard to the champion cow, saying that he raised the cow on his farm, and that previous to 1916 the cow had given birth to two single calves.

"This cow gives more milk than any cow in my herd, except one Holstein," said Mr. Struck. "Sometimes she gives as much as fourteen quarts in one milking. Certainly she does not owe me any board bill. I have never heard of a record like hers in the thirty-eight years that I have been in this country, and I doubt whether there is another cow like her anywhere."—J. C. M.

SAGINAW COUNTY HOLSTEIN A GOOD PRODUCER.

GRANT CLOTHIDE KORNDYKE, a pure-bred registered Holstein-Friesian cow owned by T. A. Kidney, of Brant township, Saginaw county, recently made a record of 638.8 pounds of milk and 24.168 pounds of butter-fat equivalent to 30.2 pounds of butter, for a period of seven days. The cow is nearly five and one-half years old. —J. C. M.

HURON BREEDERS HOLD ANNUAL MEETING.

THE Huron County Holstein-Friesian Breeders' Association held its annual meeting at the Bad Axe Opera House on March 21. Luncheon was served at the Hotel Irwin at noon, and early in the afternoon a business meeting and election of officers was held. Following the business meeting a film was shown at the opera house, giving the history of the Holstein breed; and other features of the meeting were interesting talks by prominent stock breeders.—M.

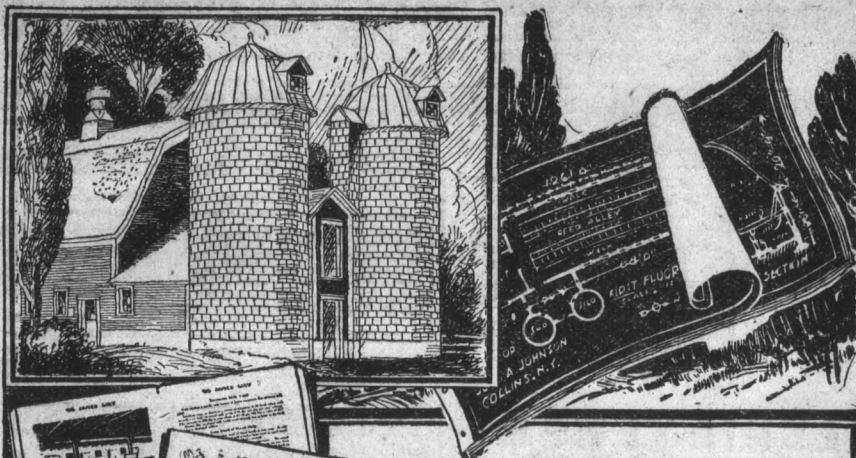
DAIRYMEN MUST STICK.

Secretary Charles W. Holman, of the National Milk Producers' Federation, says a powerful raid against the farming interests is under way in connection with the tariff bill. He claims to have information that unless the dairy interests act quickly the rate on butter will be driven down to eight cents a pound or less, with other rates in proportion. A strongly organized lobby of soap makers, and refiners and importers of vegetable oils are fighting hard to get both the vegetable oils and the products from which they are made put on the free list.

A GOOD TONIC FOR HORSES.

A GOOD spring tonic to feed the team is as follows: Corn meal, 112 lbs.; wheat meal, 112 lbs.; fine bran, 112 lbs.; gentian root, powdered, two lbs.; fenugreek, six lbs.; aniseed, powdered, six lbs.; flour of sulphur, 1½ lbs.; caraway seeds, powdered, two lbs.; locust meal, 28 lbs. Mix these thoroughly and give about five ounces to a full-grown horse daily.

Says Sam: Slovenly farming is a form of impiety.



How Dairymen Can Make More Money In 1922

PRACTICAL men, with life-long experience in dairy farming, have worked out a system of caring for the dairy herd that cuts down the labor cost, increases milk yields, improves cow health and saves feed.

This system is called the Jamesway.

The Jamesway provides cow comfort; and comfortable cows give more milk.

It turns the disagreeable, dirty task of cleaning the barn into a job a boy enjoys; for the Jamesway keeps the cows clean.

The heavy labor is taken out of the task of feeding; and feed wastes are stopped.

Water, the simplest means of increasing milk yield—is often disregarded by dairymen. Those who realize how greatly the milk flow is increased by the Jamesway are reaping huge profits on their investment.

Jamesway ventilation gets the foul air out of the barn, brings fresh air in. Helps keep the cows vigorous and healthy.

In these ways, and others described in the Jamesway book, many dairy farmers are increasing their profits this year.

Why not write us today for your copy? Please say whether you intend to build or remodel a dairy barn this year and whether you consider putting in stalls, stanchions, drinking cups, carriers or pens.

Ask for Jamesway Dairy Barn Book No. 24.

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Men's Medium weight sturdy work shoe. Black and tan grain leather. Two full soles of solid oak leather. Smooth grain leather insole. Munson last, soft toe. Men's black or tan color. No. MF9001 sizes 6 to 11 \$2.85
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Men's Special Work Shoes. Heavy tan wax calf. Thick leather soles. No. MF9001 sizes 6 to 12 \$2.49

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FULLY GUARANTEED
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A SOLID PROPOSITION to send new, well made, easy running, perfect skimming separator for \$24.95. Closely skims warm or cold milk. Makes heavy or light cream. Different from picture, which illustrates larger capacity machines. See our easy plan of Monthly Payments

Bowl a sanitary marvel, easily cleaned. Whether dairy is large or small, write for free catalog and monthly payment plan.

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\$700 Gets 240-Acre With Horses, Poultry, 13 Cows And

Calves, vehicles, tools, etc. thrown in; on improved road close village and LRT; machine-worked fields, 50-cow spring-watered pasture; about 600 cords wood, 75 apple and plum trees; attractive 10-room house, running water, overlooking lake; 70-ft. barn, 45 stable, garage. Owner's other interests force sale, \$3850, only \$700 down, easy terms. See page 21 our new Illus. Catalog 1920 Bargains. FREE. STROUT FARM AGENCY, 814 BC Ford Bldg., Detroit, Mich.

40 A. Wisconsin Farm For Sale

2½ miles county seat. ¾ mi. school, on trunk highway and R. F. D. Over half cleared, all fenced and cross fenced. Good set of buildings; soil, silt loam, \$2800, half cash, buildings worth nearly half. Land new, rich. H. L. BROWNELL, 4751 Trumbull, Detroit, Mich.

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320 Acres deep black soil, clay subsoil, in wheat belt. Near Brandon, Manitoba, R. R. station and elevator on adjoining section. Will sell for less than land hundreds of miles further away. Reason for selling too far away to look after. Inquire Fred L. Russell, 1385 Lakewood Ave., Detroit, Mich.

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The Sire Supreme

At the International Live Stock Exposition, where gathers each year the elite of North American Cattle to compete for the coveted awards, five more honors have been bestowed upon the "get" of Edgar of Dalmeny. You too may share these honors. A bull by this world famous sire will prove a most valuable asset to your herd. Write us today.

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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. Reasonable. Inquire F. J. WILBER, Olio, Mich.

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A fine bull ready for heavy service \$125.00
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Containing blood of world champions.
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Guernsey Calves, bull and heifer not related, also yearling heifer. Ancestors include most noted animals of the breed. G.A. Wigent, Watervliet, Mich.

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Registered Holsteins

It was through the daughters of
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Our Junior Herd Sir

produced the Junior Champion and Reserve Grand Champion Heifer, at the Michigan State Fair this year, in a class of 38.

His get won first in Calf Herd, also first in get of sire, in a class of 13.

A son of either of these great bulls will help the individuality and production of your herd.

We have bulls at dairymen's prices, and we also have bulls at the breeder's price, from dams with records up to 38 lbs. of butter in seven days, and 1168 lbs of butter in one year.

Ask us about a real bull, a Maplecrest or an Ormsby
JOHN H. WINN, Inc., Rochester, Mich.

Model King Segis Glista's
First Daughters Just Off Test

ANNIE SEGIS CORNUCOPIA GLISTA, senior two year old. Butter 7 days. 19.814

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HERE IS A GOOD ONE

BORN JUNE 2nd 1920 by MAPLECREST DE KOL HENGVERVELD whose three sisters have each produced over 1200 lbs. of butter in a year. TWO of them former WORLD CHAMPIONS. Calf's dam by an own brother of a 1248 lb. cow. Write for pedigree.
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We have what you want in BULL CALVES, the large, fine growthy type, guaranteed right in every way. They are from high producing A. R. O. ancestors. Dam's records up to 30 lbs. Write for pedigrees and quotations, stating about age desired.

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32 Lb. Bull, \$150

Pure bred, registered, federally tested. Six nearest dams average 30 lbs. Good individual, mostly white, 2 yrs. old. Guaranteed healthy and breeder. Priced to sell quickly. Pedigree on request.
ALBERT G. WADE, White Pigeon, Michigan.

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

Serradella Farm--Holsteins.

Herd Sire: Wandermere King Hengerveld. His dam is dam of the former world's champion junior 4 years old, Wandermere Belle Hengerveld, whose record is 42.65 lb. of butter in 7 days. One of his sons out of a dam whose record is 17,072 lb. of milk and 634.57 lbs. of butter in 365 days as a 2 years old is for sale. This dam promises great things. Herd under Federal Supervision. Where can you equal his price of \$150.
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"Top Notch" Holsteins

Bull advertised last week bought by a good breeder in Ohio.

We have a few more desirable bulls ready for service, sired by a 32 lb. grandson of the 40 lb. 4 year old former world's champion, Mabel Segis Korndyke, out of high milk and butter producing cows. Priced to sell.

McPherson Farms Co., Howell, Mich.
(Breeder of the only 800 lb. 7 day cow to produce an 800 lb. daughter).
Herd under U. S. Supervision.

Bulls Registered Holstein Bulls

old enough for service, for sale. Bred from Pontiac and Segis dams and sired by a 26 lb. Gdson of Maplecrest Korndyke Hengerveld, priced to move them will also sell a few heifers soon to freshen. Herd under federal and state supervision.
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A Good Note accepted in payment of finely bred registered Holstein bull calves. Quality of the best, and at prices within reach of all. Write GEO. D. CLARKE, Vassar, Mich.

HOLSTEIN and Guernsey calves, 7 weeks old, 31-32nds pure, \$25. each crated for shipment. Satisfaction guaranteed.
EDGEWOOD FARMS, Whitewater, Wis.

Holstein-Friesian pure-bred bull calves, tuberculin tested. Prices are right. Laro Research Farm, Box A, North End, Detroit, Mich.

5 yr. old son of Smithdale Alcartra Pontiac from daughter of Pontiac Korndyke. Priced low.
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Ten reg. Holstein heifers, some fresh, others fresh soon. All tuberculin tested and guar. O.K. every way. Price \$100 to \$150 each. B. B. Reavey, Akron, Mich.

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(Cattle Business Established 1835)

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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.)

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Registered Herefords for sale. Cows and 2 herd bulls.
RALPH CALHOON, Bronson, 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, 509 Free Press Building, Detroit, Mich., Main 1267.

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

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

For Sale Jersey Bulls ready for service. Lad, Majesty breeding. WATERMAN & WATERMAN, Packard Rd., Ann Arbor, Mich.

Francisco Farm Shorthorns
and BIG TYPE POLAND CHINAS

Now offering--Three bulls ready for service. Mastodon, Glansman. Emancipator blood in glits bred for spring farrow. See them.
POPE BROS. CO., Mt. Pleasant, Mich.

Southern Michigan Polled
Shorthorn Breeders Ass'n.

are offering for sale

A Few Select Young Bulls and Heifers.

We sell worth the money. Write your wants.
C. E. NASH, Sec. GEO. E. BURDICK, Pres.
County Agriculturist and Mgr. Branch Co. Farm
Coldwater, Mich. Coldwater, Mich.

Jersey Bull or Sale Springfield Owl breeding. Herd tuberculin tested. Satisfaction guaranteed. Age six months.
Fred L. Bodimer, Reese, Mich.

BIDWELL SHORTHORNS
BUY A BULL

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

The Maple's Shorthorns

Kirk Levington Lad, by imported Hartforth Welfare, in service. Bulls and heifers for sale.

J. V. Wise, Gobleville, Mich.

Richland Shorthorns

Now offering a choice lot of bull calves. Best of breeding. \$150 to \$250 will buy a real bull at present time. Write for particulars.

C. W. Prescott & Sons,
Tawas City, Mich.

Claradale Milking Shorthorns

We invite the discriminating breeder and farmer, who is in need of a real bull, that will transmit the combine qualities, beef, milk, high in butter fat, type, character, beauty. We do state official milk testing. Come and see us or write for circulars and reasonable prices. F. W. Johnson, Custer, Mich., Mason Co. Box 26

Stock Farming

WOOL CONSUMPTION INCREASES.

FIGURES have been dug up from authentic sources showing the consumption of wool in the United States to have been 72,000,000 pounds more in 1921 than in 1920. The total in 1921 was 572,724,000 pounds, as compared with 500,744,000 in 1920. The greatest consumption was of grease wools of which there were 477,473,000 used in 1921 and only 410,666,000 pounds in the year previous.

PARALYSIS IN PIGS.

INASMUCH as paralysis in pigs is presumed to be due to some lack in nutrition, it has been suggested that milk and carrots which are well supplied with vitamine B. be added to the ration. Experimental work along this line has given remarkable results.

PIG SURVEY TO BE MADE MAY 1.

OVER 24,000 rural mail carriers connected with 9,500 post offices in Michigan and thirteen other states will collect data on the number of pigs on

states will participate in a commission house at Buffalo. Said commission house to be financed and operated by these three states. All other states shipping cooperatively to this point shall share the patronage dividend according to the commission paid, conforming as nearly as possible to the national plan. The committee plans to begin operations at Buffalo about the first of May and will be glad to have all cooperative associations affiliated with this movement, give them their patronage. All associations not affiliated are cordially invited by the exchanges to fall in line and receive the benefits offered.

HOW TO TAN A HIDE.

THE equipment and methods necessary for tanning cowhide is described in a leaflet just published by the Bureau of Chemistry of the United States Department of Agriculture. The process involves thorough washing, softening and scraping of the hide, liming to take off the hair, deliming, tanning with the bark infusion, and finishing. Directions are also given



The Good Horseman will Fit His Team for Heavy Spring Work by Beginning Now to Gradually Harden them to the Harness.

their respective routes about the first of May.

A simple card questionnaire will be used. This card will ask for the acreage in each farm and the total acreage of crops, including hay. It will also ask the number of sows which have farrowed or due to farrow between January 1 and June 30, 1922, as well as the number which farrowed between the same dates in 1921. Similar information will be asked regarding litters coming between July 31 and December 31. The information on the card will be confidential and only totals and percentages will be published. The figures will be of great value to hog raisers and we anticipate the fullest cooperation of farmers with the post office and agricultural departments.

PIG-EATING SOWS.

PIG-EATING sows should be fed about three pounds of salt pork cut in strips, or the pigs may be painted with muclage containing equal parts of tincture of aloes and asafoetida as soon as the pigs are dry.

A little wheat bran or linseed oil meal in the sow's ration will prevent costiveness at farrowing time.

COOPERATIVE COMMISSION
HOUSE AT BUFFALO.

AT a conference held at the Waldorf Hotel, Toledo, Ohio, between the representatives of Indiana, Ohio and Michigan, a satisfactory agreement was arrived at whereby these three

for blackening the leather before it is finished and for treating sole leather to make it water-resistant. Address the Department of Agriculture, Washington, D. C.

REPAIRING CONCRETE TANKS.

IT occasionally happens where sufficient reinforcement has not been used that a concrete tank will crack, either through the freezing of water or by uneven settling. These cracks may often be repaired by using a rich cement and plastering over the cracks until they are well filled.

MORE FUNDS FOR TUBERCULOSIS FIGHT.

AN additional sum totaling nearly three quarters of a million dollars has been included in the appropriation bill for the department of agriculture for the payment during the next fiscal year of indemnities on cattle tested and found to have tuberculosis. The total amount now carried by the bill for this purpose is \$1,728,800.

Do not allow your ham and bacon to mold where it has been sliced. Rub lard over the exposed surface. The mold will then form on the lard. Paraffin run over the fresh surface will also prevent it from molding.

Volume of business is a key to farm prosperity. Of ninety Washington county farms recently surveyed, the thirty-six with a cash income of over \$4,000 cleared three times as much money as the fifty-four with less than \$4,000 coming in each year.

VIGOROUS COWS; HEALTHY CALVES

**Calkins No Longer Fears
the Calving Period**

Every cow-owner knows the strain of calving on a cow's system. Kow-Kare is so widely used by dairymen before and after calf-birth to strengthen the genital organs and avoid disorders, that we receive yearly thousands of letters from grateful users. G. H. Calkins, Ione, Oregon, writes:

"I have a fine Jersey cow. When two years old she dropped twins; they came dead. She didn't clean and four days after I tried to take the afterbirth but could not. I got an experienced man and he tried and failed, and then I began giving her Kow-Kare and in about fourteen days it came away all right and she has not seen a sick day since."

Kow-Kare is equally sure as a remedy for Barrenness, Abortion, Scouring, Bunches, Milk Fever, Loss of Appetite, etc. All of these ailments result from sluggish genital or digestive organs. It is these organs that Kow-Kare is quick to strengthen and build up.

At a cost of only a penny a day, Kow-Kare is used in many of the best dairies to offset the severe strain of winter confinement and rough or concentrated feeds. This aid to digestion and assimilation keeps milk production at top notch and avoids breakdowns.

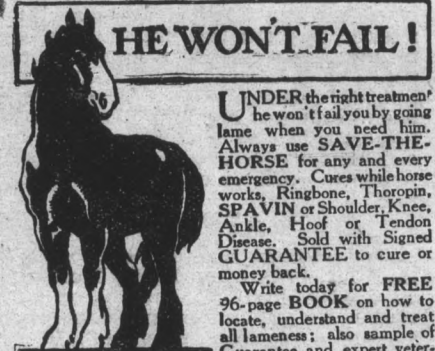
Kow-Kare will help you to bigger dairy profits; try it. General stores, feed dealers and druggists sell it at the new reduced prices—65c and \$1.25

DAIRY ASSOCIATION CO., INC.,
Lyndonville, Vt.

Write today
for this valuable
book on
diseases of
cows.



FREE
BOOK



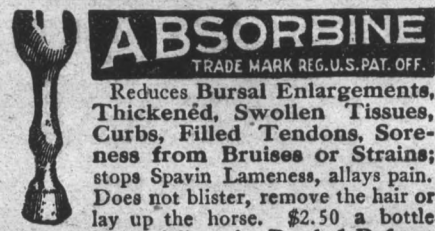
HE WON'T FAIL!

UNDER the right treatment he won't fail you by going lame when you need him. Always use **SAVE-THE-HORSE** for any and every emergency. Cures while horse works. Ringbone, Thorpin, SPRAIN or Shoulder, Knee, Ankle, Hoof or Tendon Disease. Sold with Signed GUARANTEE to cure or money back.

Write today for FREE 96-page BOOK on how to locate, understand and treat all lameness; also sample of Guarantee and expert veterinary advice—all FREE. Over 325,000 satisfied users.

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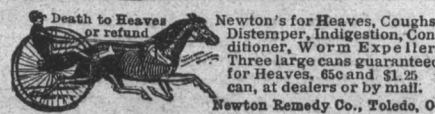
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Reduces Bursal Enlargements, Thickened, Swollen Tissues, Curbs, Filled Tendons, Soreness from Bruises or Strains; stops Spavin Lameness, allays pain. Does not blister, remove the hair or lay up the horse. \$2.50 a bottle at druggists or delivered. Book 1 R free.

ABSORBINE, JR., for mankind—an antiseptic liniment for bruises, cuts, wounds, strains, painful, swollen veins or glands. It heals and soothes. \$1.25 a bottle at druggists or postpaid. Will tell you more if you write. Made in the U. S. A. by **W. F. YOUNG, INC.**, 268 Temple St., Springfield, Mass.



EMPIRE MOLASSES
Makes Milk. Fattens Faster. Quickens Growth. Doubles Work Horse Power. Write today for No-Risk Trial Offer Chicago Molasses Co., 1181 East 77th St., Chicago, Ill.

FOR SALE BEES \$8. 10 frame Standard Hives. Prices right. **WM. C. SCHAFER**, R. 2, Wyandotte, Mich.

FARM HELP

Wanted Man & Wife To take charge of farm. Baldwin, Mich. Located 75 miles north of Grand Rapids. Will furnish 2 hogs. Butter and Milk and all the garden stuff he can raise for himself. State nationality and wages expected, must be a worker and furnish references, also state how many there are in family. Address **H. W. LEVERETT**, 517 Mather St., Chicago, Ill.

When writing to advertisers please mention the Michigan Farmer.

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.

Paralysis of Hind Quarters.—I have two pigs three months old that seem to have paralysis of hind quarters, but their appetite is good. I feed them some corn, middlings, also plenty of milk. O. H. S., Grass Lake, Mich.—Mix equal parts of wood ashes and salt and give them some in their feed two or three times a day. Growing pigs require a mineral mixture with their feed, and I might add many of the commercial mixtures are very good. Have your pigs had plenty of exercise?

Lame Pigs.—I wish you would tell me what to do for my lame hogs; they are stiff in hind quarters, perhaps foot-sore. I feed them corn and skim-milk. J. G., Moline, Mich.—Mix 30 lbs. common salt, 25 lbs. bone flour, 12 lbs. wood ashes, 12 lbs. flowers of sulphur, 10 lbs. lime or limestone, 5 lbs. Glauber's salts, 5 lbs. epsom salts, 2 lbs. powdered sulphate of iron together and feed one pound a month to each hog. Feed less corn, more oats, oil meal, clover, alfalfa and roots. Keep them dry, clean and warm.

Barrenness.—Cow freshened December 19, 1920; has been bred twelve times since; comes in heat every three weeks, has no discharge, in good flesh, only seven years old, but fails to get with calf. H. F. C., Ypsilanti, Mich.—Try the yeast treatment. Drop a cake of yeast into one quart of warm water, let it stand for three hours in warm room, then flush vagina three hours before service. You had better flush vagina daily with warm water and apply the yeast treatment for one week before she comes in heat. Let us have report of treatment.

Forage Poison.—I have some sheep which have been running in swamps, eating cedar and hemlock boughs, also fed them bean pods, cornstalks and straw. Several of them are sick and three died. Symptoms, stand still and stare at the ground as if afraid of something, then throw the head back, grind with teeth and soon die. Kindly tell me what to do for them. J. A. S., Clare, Mich.—Give each sick sheep two or three tablespoonsful of castor oil to move bowels, then give plenty of salt and make a complete change of feed. Feed ground oats, clover and some roots.

OUR LETTER BOX.

(Continued from page 409).

not win, as you have undoubtedly learned something worth while in looking up the questions.

Dear Uncle Frank:

I have answered the questions asked in the last Michigan Farmer. Before I write them, I want to tell you that I enjoyed finding the answers very much. I hope to win a prize, still I do not want to take the prizes from others. I have tried for prizes so many times, but failed to win.—Ernea Moore, East Lansing, Mich.

I like your spirit of unselfishness, but please don't get discouraged because you do not win. Keep trying.

Dear Uncle Frank:

I am sending you the answers to the "brain teasers" in the Michigan Farmer. I live on a farm and have one cow and calf, one sheep and lamb, all my own. I am in the eighth grade at school and I am thirteen years of age.—Margaret Gould, St. Louis, Mich.

I am sure you get a lot of pleasure out of caring for your stock. Every boy and girl ought to have something to take care of.

Dear Uncle Frank:

My papa and mamma live on a farm. I like to help mamma with her work, also with the chickens and cows. We have two little calves which sister and I feed for papa. I am twelve years old, I go to school every day. We have a very good teacher.—Lenora Nott, Battle Creek, Mich.

A good teacher certainly does make going to school a lot more interesting, doesn't she?

CATTLE

FOR SALE AT Fairacres Stock Farm, 10 young Shorthorn bulls. 1 light roan born March 26, 1921 and one red born April 13, 1921. Both sired by Missie's Pride 679681. Dam, Pride's Dorothy 2d 512433. Bargains. Write **CHARLES A. KOHNS**, Capac, Mich.

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

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

HOGS

BERKSHIRES

Special prices for registered Berkshire breeding stock: 10 Mature Bred Sows \$75.00 Best type with size and quality. Satisfaction absolutely guaranteed. Write for information. **O. C. COREY**, 2428-30 First National Bank Building, Detroit, Michigan

Brookwater Duroc Jerseys

Gilts for May and early June farrow. Ready for service boars. Satisfaction guaranteed. Prices are reasonable. Mail orders a specialty.

BROOKWATER FARM,
H. W. Mumford, Owner J. B. Andrews, Manager.
ANN ARBOR, MICHIGAN

Woodlawn Farm Duroc Hogs
A well kept herd, best of blood lines, with size and breeding qualities, stock of all ages for sale at reasonable prices. **W. E. BARTLEY**, Alma, 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 your satisfaction. Herd boars, Panama Special 11th and Home Farm Wonder. Booking order for fall pigs at \$15 each. **Thos. Underhill & Son**, Salem, Mich.

Hogs That Will Make You Money
Associated Swine Farms, Inc.
Peoria, Ill.
Guaranteed Animals Satisfied Customers
Big profits in our pure bred Duroc Jerseys. Registered, immune pigs, sows, open gilts, bred sows, service boars. Write for free illustrated descriptive, educational circular with prices.
ASSOCIATED SWINE FARMS, INC., Box 270 B Peoria, Ill.

Special Sale Durocs. Fall pigs either sex sired by Michigan's Orion Sensation and Michigan's Demonstrator. Can furnish pairs and trios not related. Price \$20 & \$25 registered in your name. Also few sows and gilts bred for April, May and June farrow. **Michigan Farm, Pavilion, 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. **DRODT & BERNIS**, Monroe, Mich.

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

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



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

Durocs Herd headed by Great King Orion Col. assisted by a good son of King Orion Fancy Jr. **HARRY FOWLER**, Sturgis, Mich.

AM SELLING

a great offering of bred Duroc sows and gilts March 4th. They are mostly bred to Orion Giant Col., son of Ohio Grand Champion. Get on mailing list for catalog. **W. C. TAYLOR**, Milan, Mich.

Westview Duroc Bred Sows
all sold. Have two spring boars left at a reasonable price. Will book orders for April & May Pigs. **ALBERT EBERSOLE**, Plymouth, Mich.

DUROC—JERSEYS
Sows all sold. **E. D. Heydenberk**, Wayland, Mich.

Duroc Jerseys heavy boned, low down type breeding stock for sale. **CHAS. BRAY**, Okemos, Mich.

Duroc Jerseys Bred Gilts all sold. Now offering some choice fall boar pigs large enough for spring service. **RUSH BROS.**, Romeo, Mich.

BIG TYPE CHESTER WHITES

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

CHESTERS We are all sold out of Boar, Bred Sows and Gilts. For spring pigs write **WEBER BROS.**, Royal Oak, Mich., 10 Mile and Ridge Rd., Phone 408.

Chester Whites Spring pigs by Monster, son of Sherser Monster, Raleigh B. Choice Prince and others. Money back guarantee. **Fred L. Bodimer**, Reese, Mich.

Chester Whites bred gilts and fall pigs of excellent quality and breeding. Satisfaction guaranteed. **F. W. Alexander**, Vassar, Mich.

Chester Whites All sold. Spring boars at \$15. **ALBERT DORR**, Clinton, Mich.

O. I. C. HOGS

all ages sired by Callaway Edd. 1918 world's grand champion boar and O. C. Schoolmaster 1919 world's grand champion, also Wonder Big Type and Giant Buster. Write your wants, all stock shipped on approval. **ORANDELL'S PRIZE HOGS**, Cass City, Mich.

O. I. C. & Chester White Swine. Strictly Big Type with QUALITY. We are sold out of everything but a few choice fall gilts. Will book orders for Spring pigs. Of the best Prize winning blood lines. Will ship C. O. D. And record them free in purchaser's name. **NEWMAN'S STOCK FARM**, R. 4, Martlette, Mich.

O. I. C. BRED GILTS

shipped C. O. D. **J. CARL JEWETT**, Mason, 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 Hog. Free. **GEO. M. WELTON & SON**, Alto, Mich.

O. I. C. & Chester White Spring Pigs from prize-winning stock of the most popular blood lines. We ship C. O. D., register in buyer's name and guarantee satisfaction. **J. A. WILK & SON**, Alma, Mich.

O. I. C's all sold except two fall boars. Orders booked for spring pigs. **C. J. THOMPSON**, Rockford, Mich.

O. I. C's Choice Aug. and Sept. open gilts also booking orders for spring pigs. **CLOVER LEAF FARM**, Monroe, Mich.

O. I. C. Bred gilts all sold. Orders booked for spring pigs. **A. J. BARKER & SON**, Belmont, Mich.

For Sale. O. I. C. Gilts bred for March and April farrow (at a reasonable price.) **H. W. MANN**, Dansville, Mich.

Large Type P. C.

Largest herd of individuals in state. Everything sold. Nothing to offer until spring pigs are ready to ship. I thank you. **W. E. LIVINGSTON**, Parma, Mich.

Big Type Poland Chinas. Fall boars at \$25 each, bred to a grandson of the Yankee, the \$40.00 sire. Where can you find any better Big Type breeding? Our prices are very low, \$30, \$40. Also 50 fall pigs. Why not buy a pig? **JNO. C. BUTLER**, Portland, Mich. Bell Phone.

40 Sows. Granddaughters of the great Giant Buster, bred to a grandson of the Yankee, the \$40.00 sire. Where can you find any better Big Type breeding? Our prices are very low, \$30, \$40. Also 50 fall pigs. Why not buy a pig? **JNO. C. BUTLER**, Portland, Mich. Bell Phone.

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

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

Large Type Poland Chinas

Spring boars all sold. Fall pigs at bargain prices. Bred gilts held for public sale. **A. A. FELDKAMP**, R. 2, Manchester, Mich.

BIG TYPE POLAND CHINAS

Bred gilts for sale. Choice individuals of rich breeding at prices within your reach. Come see them or write. **WESLEY HILE**, R. 6, Ionia, Mich.

L. T. P. C. Gilts bred to that Yearling long, and walks on a 11" bone. Offering summer and fall pigs. **Clyde Fisher**, R. 3, St. Louis, Mich.

Poland Chinas Sixteen years breeding and showing. I can please you in a bred gilt. **ROBERT MARTIN**, R. 3, Woodland, Mich.

Big Type P. C. Sows bred to Big Bob Mastodon, his gilts bred to a son of Peter Pan, that sold for \$1,075 cash Jan. 5. **C. E. GARNANT**, Eaton Rapids, Mich.

L. T. P. C. Orange Model gilts, bred for March and April farrow. Come and see them, they will bear inspection. **W. J. Hagelshaw**, Augusta, Mich.

BIG TYPE Poland Chinas, leading strains at lowest prices. Both sex, all ages, and bred sows and gilts. **G. A. BAUMGARDNER**, R. 2, Middleville, Mich.

LEONARD'S B. T. P. C. Herd headed by Leonard's Liberator. Orders booked for boar pigs at weaning time. Call or write **E. B. LEONARD**, St. Louis, Mich.

Large Strain P. C. A few nice gilts left, bred for April Land May farrow, price that any farmer can afford. **H. O. SWARTZ**, Schoolcraft, Mich.

Hampshires book your order for spring boar pigs now. A few gilts, now ready for summer farrow. **JOHN W. SYNDER**, R. 4, St. Johns, Mich.

SHEEP

A Real Bargain at Kope Kon Farms

We offer 40 big healthy yearling Shropshire and Hampshire Rams all registered at \$25.00 each. Come or write while the picking is good. **S. L. WING**, Coldwater, Mich.

Wanted — EWES FOR BREEDING

Large coarse wool type. Lincolns preferred. Must not be with lamb. **Dion Geraldine**, Wolverine Hotel, Detroit, Mich.

HORSES

Stallions For Sale or Trade Two good Percheron and some good Belgians, also some mares. Will trade for horses, cattle or sheep. Price to suit you. **Otis Baker**, Ligonier, Indiana

For Sale Reg. Pure Bred Clydesdale Stallion, rising six years old, sure foal getter. If interested apply **HARVEY McALPINE**, R. 2, Bothwell Ont., Can.

FOR SALE Percheron Stallion, steel gray, registered No. 149029, 4 years old. **THOMAS MURPHY JR.**, Gifford, Mich.

LATEST MARKET REPORTS

Tuesday, March 28.

Wheat.

Detroit.—Cash No. 2 red \$1.42; No. 2 mixed and No. 2 white \$1.39; May \$1.45.

Chicago.—No. 3 red \$1.32½; May at \$1.32½.

Toledo.—Cash \$1.41; May \$1.40½.

Corn

Detroit.—Cash No. 2, 62½c; No. 3 yellow 61c.

Chicago.—No. 2 mixed 55½@56¼c; No. 2 yellow 56@57¼c.

Oats.

Detroit.—Cash No. 2 white 41½c; No. 3 yellow 39½c.

Chicago.—No. 2 white 37¼@38½c; No. 3 white 35@36¾c.

Beans.

Detroit.—Immediate and prompt shipment \$7.05.

Chicago.—Choice to fancy hand-picked Michigan beans at \$7.25; red kidney beans \$8.

New York.—Choice pea \$6.75@7; red kidney beans \$8.

Rye.

Detroit.—Cash No. 3, \$1.02.

Chicago.—\$1.01½@1.02.

Toledo.—\$1.

Seeds.

Detroit.—Prime red clover, cash at \$15.75; alsike \$12.25; timothy \$3.35.

Toledo.—Prime red clover \$15; alsike \$11.70; timothy \$2.95.

Feeds.

Detroit.—Bran \$32; standard middlings \$33; fine middlings \$33; cracked corn \$30; coarse cornmeal \$26@27; chop \$24.50@25 per ton in 100-lb. sacks.

Hay.

Detroit.—No. 1 timothy at \$19@20; standard and light mixed at \$18@19. No. 2 timothy \$16@18; No. 1 clover mixed \$16@17; rye straw \$13.50@14; wheat and oat straw \$12.50@13 per ton in carlots.

WHEAT

With the coming of spring, the wheat crop is showing up favorably in most sections. Some reports of damage are being made, however, and it will be a departure from practically all past history if a crop scare does not arrive later on. There are numerous reports of green bugs in Texas and Oklahoma while some acreage has been plowed up in Kansas and adjacent states and a marked demand for oats to seed abandoned wheat acreage has appeared in certain parts of Kansas in the last few days. Foreign crop reports are mixed but on the whole do not indicate an abundant harvest so far as Europe is concerned. Russia will not be an exporter next year if present signs are indicative, the Danubian countries have a small acreage and the condition of the French wheat crop is considerably below average.

CORN

Both the domestic and the export demand for corn have subsided in the last few weeks offsetting the decline in primary receipts which are now the lightest since the last week in November. Stocks at terminals are large and some of this corn accumulated during the winter is being pressed upon the market.

OATS

The oats market has been more or less laggard for months but shows some signs of gaining strength. Primary receipts have dropped down to the smallest level since early in January while primary shipments have increased and last week actually exceeded arrivals by a very substantial amount. Some surplus sections have disposed of their supply and are obliged to go outside to purchase seed. Export demand has broadened and clearances are running close to 1,000,000 bushels per week. Wet weather is delaying seeding operations in a wide area and it is possible that anxiety over the new crop may have some effect on the market before long.

SEEDS

The red clover seed market remains at nearly the highest level of the season. Alsike clover has declined during the last few weeks and timothy seed is about 10 per cent lower than at the high point of the season. De-

mand for clover seed will subside within the next thirty days. During the latter part of April the market begins to ease off.

FEEDS

The spring demand from hog feeders for shorts and middlings has made a strong market on this product but buyers are indifferent to other kinds. Wheat feed prices for later shipment are \$1 to \$2 below those for prompt shipment. Stocks of cottonseed cake and meal are larger than those of last year but they are not being forced upon the market and prices are holding firm. The linseed meal market has weakened temporarily due to liberal offerings out of second hands. Production of corn feeds is heavy.

HAY

Light receipts are maintaining a firm hay market. At Kansas City, for example, receipts from January 1 to date have been 5,659 cars, compared with 8,312 cars in the same period last year and 17,725 cars in the same period two years ago. Prices upon timothy and prairie hay are substantially lower than at this time last year but alfalfa hay is higher. Ordinarily some new crop alfalfa hay is moved out of the far southwest by this time but the cold weather is delaying the first cutting this year and some observers predict that it will not be available until the latter part of May. As a result, Texas has been buying to a limited extent in northern markets.

POULTRY AND EGGS

Although receipts of eggs are not as heavy as they were at this time last year, the movement into storage is fairly generous. Receipts at the four leading cities since January 1 total 2,947,000 cases compared with 3,171,000 cases in the same period last year. Cold storage holdings at these four points have increased to 142,000 cases compared with 416,000 cases at the same time in 1921. Cold storage holdings of frozen poultry in the United States on March 1 were 88,708,000 pounds. Stocks decreased nearly 15,

000,000 pounds during February, compared with a decrease of only 2,000,000 pounds in the same month last year.

Chicago.—Eggs miscellaneous at 22@23c; dirties 20½@21½c; checks 20@20½c; fresh firsts 22½@23c; ordinary firsts 21½@22. Live poultry, hens 25c; springers 29c; roosters 19c; ducks 30c; geese 16@18c; turkeys 30c. Detroit.—Eggs fresh candled and graded 24@24½c. Live poultry heavy springers 28c; light springers 24c; heavy hens 27@28c; light hens 27@29c; roosters 18c; geese 18c; ducks 35c; turkeys 25c.

BEANS

The bean market has been quiet during the past week with choice hand-picked white beans quoted at \$7 per 100 pounds f. o. b. Michigan shipping points. Warm weather has dulled the demand slightly, and prices are not quite at the top. The undertone is firm with offerings light and a prospect that the supply will fall considerably short of lasting till the new crop is ready. No new export sales have been made. A rumor that some beans have been brought into an eastern port from Roumania at 3½ cents in bond or 5½ cents duty paid is generally doubted since recent export sales to Europe were at a much higher figure. Japanese beans are quoted at seven cents on the Pacific Coast.

POTATOES

Stocks of potatoes in the fifteen leading potato states on March 1 were estimated at 90,946,000 bushels, of which 73,486,000 bushels were held by farmers and 17,460,000 bushels by local dealers. Only 31,000,000 bushels of the farm stocks will be sold so that total stocks available for commercial channels are about 48,000,000 bushels. Since the commercial disappearance of potatoes from these states thus far in the crop year has been only about 102,000,000 bushels, the supply on March 1 appears to be ample for the rest of the season. This is the first year such a report has been gathered so that no comparison with preceding years is

afforded. Potato shipments are still running considerably above the seasonal average but prices are holding practically steady. Northern round whites are quoted at \$1.65@1.80 at Chicago and at \$1.30@1.47 f. o. b. shipping points.

BUTTER

The butter market remained nearly steady most of last week but eased off rather sharply at the close. The principal cause was an accumulation of fancy butter at eastern markets, especially New York. Consumptive demand continues broad and the undergrades especially have been more popular than usual but receipts are running above the average for this season of the year and an enormous quantity of storage butter is being put on the market. There is no speculative buying to absorb a surplus when it appears as lower prices are expected within the next 30 days. Stocks of cold storage butter at the four leading cities on March 24 were 8,259,000 pounds compared with 11,823,000 pounds on the corresponding day last year.

Prices on 92-score fresh butter are: Chicago 38c; New York 37c. In Detroit fresh creamery in tubs sells for 37@38c per pound.

WOOL

The finance committee in the United States Senate has finally agreed upon a duty of 38 cents per scoured pound on wools except those of carpet grade which are to be duty free. The measure has some distance to go before final enactment but it has a good chance to go through. The duty on scoured wool in the emergency tariff is 45 cents. The wool market has been relatively quiet. Activity of the woolen and worsted mills has slowed down about 10 per cent in the last three months, nevertheless mills are obliged to buy raw wool and prices are practically unchanged. At the London auction of Colonial wools, values have been hardening steadily. The demand for cloth is slow and many mills are considering the necessity of reducing wages in order to cut costs of production.

APPLES

Cold storage holdings of apples in the United States on March 1 comprised 989,000 barrels compared with 2,020,000 barrels on the same date a year ago and a five-year average of 1,500,000 barrels; also 6,209,000 boxes compared with 4,890,000 boxes a year ago and a five-year average of 3,812,000 boxes. Total holdings are equivalent to 3,058,000 barrels compared with 3,649,000 barrels a year ago and a five-year average of 2,771,000 barrels.

DETROIT CITY MARKET

There was an active demand for potatoes here this week, but cabbage was slow. Apples sold for \$2@3.50; potatoes \$1.20@1.25; cabbage \$1.50@1.75; carrots \$2@2.50; eggs 26@28c; poultry 29c.

GRAND RAPIDS

Condition of the roads has made potato hauling difficult and receipts are light. Dealers are bearish and look for lower values although the recent government estimate of holdings would not seem to lend good backing to this position. On the other hand, there is reported to be a good Florida crop and shipments are already coming forward, although the volume constitutes only about four per cent of the total shipments. Wholesale quotations here are 80@90c per bushel. Eggs 20@21c; dairy butter 24@30c; creamery butter 40@42c; apples \$9@10 per bbl; beans \$6.25@6.50; red kidneys \$7.25; No. 1 red wheat \$1.27; rye 82c; oats 42c.

CHEESE

The cheese market has been weak on all grades and especially so on daisies. Longhorns and square prints were nearly steady. Country markets have been easy and in general there is a lack of confidence in values as the spring break in prices resulting from increased production is believed to be not far ahead. Dealers are endeavoring to keep stocks well cleaned up. There is no speculative demand at the present scale of prices. The small supply of held cheese is inadequate to the demand. Orders from New York for large lots of fancy colored cheese could only be partially filled.

Live Stock Market Service

Wednesday, March 29.

DETROIT

Cattle.

Receipts 668. Canners steady; others 10@15c higher.

Best heavy steers.....	6.00@ 7.85
Butcher cows.....	4.00@ 4.75
Mixed steers and heifers.....	6.50@ 7.00
Handy light butchers.....	6.00@ 6.75
Light butchers.....	5.25@ 6.00
Best cows.....	4.75@ 5.50
Butcher cows.....	4.00@ 4.50
Common cows.....	3.00@ 3.50
Canners.....	2.00@ 3.00
Best light weight bulls.....	4.50@ 5.00
Bologna bulls.....	4.00@ 4.75
Feeders.....	5.50@ 6.50
Stockers.....	5.25@ 5.75
Milkers and springers.....	40@ 70

Veal Calves.

Receipts 969. Market opens at 50@75c lower, closing \$1 lower.

Best.....\$10.00@11.00

Others.....5.00@ 9.00

Hogs.

Receipts 2,454. Market is 10@15c lower.

Pigs.....\$ 10.50

Mixed hogs.....10.55@10.60

Roughs.....8.25

Stags.....5.00@ 5.50

Boars.....3.00

Sheep and Lambs.

Receipts 664. Market steady.

Best lambs.....\$15.00@15.55

Fair lambs.....12.00@13.50

Light to common.....6.00@11.00

Fair to good sheep.....8.00@ 9.50

Culls and common.....2.00@ 4.00

CHICAGO

Hogs.

Estimated receipts today are 15,000; holdover 7,074. Market fairly active, mostly steady to 5c lower. Bulk of sales \$9.75@10.30; tops \$10.35; heavy 250 lbs up \$9.80@10.05; medium 200 to 250 lbs \$9.95@10.35; light 150 to 200 lbs \$10.20@10.35; light lights 130 to

150 lbs at \$10@10.35; heavy packing sows 250 lbs up at \$9@9.40; packing sows 200 lbs up \$8.75@9.10; pigs 130 lbs down \$8.75@10.25.

Cattle.

Estimated receipts today are 6,500. Market 15@25c higher. Beef steers medium and heavy weight 1100 lbs up \$8.75@9.40; do medium and good \$7.25@8.75; do common \$6.65@7.25; light weight 1100 lbs down good and choice \$8@9.25; do common and medium at \$6.50@8; butcher cattle heifers \$5.15@8.25; cows \$4.35@7.25; bulls bologna and beef \$4@6.25; canners and cutters cows and heifers \$3.25@4.35; do canner steers \$4.25@5.25; veal calves light and handy weight \$6.25@8.50; feeder steers \$5.40@7.25; stocker steers \$5.15@7; stocker cows and heifers \$4@5.

Sheep and Lambs.

Estimated receipts today are 12,000. Market steady. Lambs 84 lbs down \$13.75@16.10; do culls and common at \$10.50@13.50; spring lambs \$11.50@14.75; ewes \$7@10.50; ewes cull and common \$3.50@7; yearling wethers at \$11.75@13.75.

BUFFALO

Cattle.

Receipts five cars. The market is slow. Shipping steers \$7.25@8.50; butchers \$7.25@8.25; yearlings \$8@9; heifers \$5.25@7.75; cows \$2.25@6; bulls \$3.50@5.25; stockers and feeders \$5@6.25; fresh cows and springers at \$45@110. Calves \$3@11.50.

Hogs.

Receipts twenty cars. The market is steady. Heavy at \$10.50@10.75; mixed at \$11@11.10; yorkers \$11.10@11.25; light \$11.10@11.25; pigs \$11@11.25; roughs \$8.25@8.50; stags at \$4@5.50.

Sheep and Lambs.

Receipts five cars. Market steady. Top lambs \$16@16.25; yearlings \$14@15; wethers \$12@12.50; ewes at \$10@11; mixed sheep \$11@11.50.

MICHIGAN POTATO GROWERS NOT CONTENT WITH PRESENT ACHIEVEMENTS.

MEMBERS of the executive committee of the Michigan Potato Producers' Association tightened every volt in the inspection and marketing machinery of their organization at Cadillac last week when they adopted a set of rules governing inspection of certified seed in field, bin and car which are considered by far the most rigid in any state in the country.

The new certification requirements are ironclad in every detail, making it possible in 1923, when only certified stock can be used for seed, to put Michigan on the map as one of the leading seed potato states in the country. Cultural methods are defined in the new rules, and while they are practically the same as the old, they plug some of the loop holes. Varietal and disease tolerance is defined very thoroughly, and whether the farmer is growing potatoes for seed or table stock, he will find it efficient to follow the rules as laid down by the committee. Much stress is placed upon spraying, five applications of Bordeaux mixture being recommended.

The Michigan Potato Growers' Exchange and the seed department of the Michigan State Farm Bureau were appointed sales agents, and they will jointly lay out their plan for marketing. An important step in this connection is the decision of the farm bureau to have its representative inspect each car before shipping, to see that certification requirements have been closely adhered to. The bureau has sold ten thousand bushels this fall without a rejection.—R.

BIG CAMPAIGN PROGRESSING WELL.

BY the second week of March, eighty-four farmers' meetings had been held by Mr. L. F. Livingston, land-clearing specialist of the Michigan Agricultural College, and his assistant, Mr. McAdams, for the purpose of making the farmers acquainted with the objects and procedure of the land-clearing schools that are to be put in northern Michigan, this spring. The average attendance at the meetings is stated to have been eighty-three. This is indicative of the wide-spread interest being shown throughout the district. There remained about thirty similar meetings to be held.

The process of stump and stone removal is depicted by moving pictures and, curiously enough, it has been revealed at these exhibitions that not a few persons in the remoter portions of the district had never before seen any moving picture exhibition. This applies not only to children but to adults advanced in years. So the films are eagerly scanned for their own sakes as well as the lessons they teach.

Mr. Livingston and Mr. McAdams are not confining their attention to farmers. They are also seeking to "sell" the idea to city people. Rotary clubs at several points have been addressed. Addressing the Rotary Club at Marquette, March 13, Mr. Livingston set forth the importance of more cleared acres to the city man as well as to the farmer, for thereby comes greater production, greater profits, greater bank deposits and greater purchasing power on the part of the farmers.

So far a hearty response has come to these appeals and Mr. Livingston has no doubt that the goal of 60,000 cleared acres this season will be attained. Two factors—the equipment provided by the railroads and the attendance of farmers at meetings—represents twice as great an effort as that put forth in Wisconsin, when Mr. Livingston operated there, and should gain correspondingly large returns.

Asked the cost of clearing an acre

of stump land, Mr. Livingston explained that it was quite impossible to answer the question without reference to particular parcels of land and the particular conditions under which the operations were to take place. If he said forty dollars, for example, some large land owner, wishing to foist his lands on the public that might require one hundred dollars per acre to clear, would use his statement to deceive the unwary purchaser. There was land which could be cleared for twelve dollars per acre and other land which would require an outlay of one hundred dollars or more.

In the school of instruction farmers learn where the blasting hole ought to be placed to get the best results, how to make the hole, how to insert the explosive, tamp it, place the cap and fuse, remove and pile the stumps and fire them. A high, narrow-burn pile much more completely burned the stumps than one spread out, while bush were best burned in a hay-cock formation rather than in windrows. There are a number of home-made but effective devices that the farmer can use in his clearing operations, which they are shown how to construct. Not a few of our farmers were at one time miners, and he stated that some trouble was encountered to get these miner-farmers to use thirty per cent dynamite when they had been accustomed to forty per cent underground.

NO SALES TAX THIS SESSION.

THERE will be no sales tax or any other kind of a tax passed at this session of congress; the problem of congress is not to raise more taxes but to spend less money, is the opinion of Congressman Patrick H. Kelley, of Lansing, in a recent reply to the State Farm Bureau's protest against consideration by congress of a sales tax as a financing measure for a soldiers' bonus or for any other purpose. The farm bureau maintained that a sales tax would work a hardship upon the consumers, particularly the farmer, as he would have to pay such a tax coming and going.

M. R. CHRISTIAN BARTHOLOMEW, director of bacteriology of the Central Experiment Station of Sweden is now in this country studying scientific work and investigating dairy conditions. Dr. Barthol says that a large number of dairy representatives from European countries are planning to attend the World's Dairy Congress in this country in October, 1923.

WOOL POOL PROGRESSING.

THE State Farm Bureau is rapidly rounding into shape its local wool pooling and grading campaign for 1922. Early last week forty-five local stations had been signed up in the first few tiers of Michigan counties and the work is going forward in other counties. In the meantime wool continues to come into the central warehouse at Lansing where the same forty per cent cash advance on the current market value of the wool is being made on date of grading, just as will be done in the field when the local pooling and grading campaign gets under way.

The first local pooling date has been set for April 17 at Charlotte. April 19 graders will be at St. Johns; at Owosso April 24, and Howell April 25. The big campaign will open up immediately after that.

GRATIOT DUROCS SELL WELL.

THE recent auction sale of Durocs by the Gratiot County Duroc Breeders' Association brought to the breeders much satisfaction due to the good prices which were received. The average values from sales held in the great hog belt of America are generally running below those received at this auction. Thirty-four fall gilts and a few yearling sows brought an average of over \$55, while five fall boars sold for an average of \$31, making the total for the thirty-nine animals a few cents better than \$52 per head. The consignors were Louis Schultheiss,

McNaughton & Fordyce, Hufford & Ballinger, R. C. Blank, Fred Willert, Roy Marzolf, G. E. Ester, Charles A. VanDeventer, Archie Miller, Charles Spurgeon, Vincent W. Palmer, R. Ben Shaver and J. B. Miller. The sale was auctioned by J. D. Helman & Son.

LIVE STOCK SALES.

Holsteins.—April 20. Eaton County Holstein Breeders' Association Assignment Sale, at Charlotte, A. N. Loucks, Secretary.
Shorthorns.—May 10. Greenville Fair Grounds, Central Michigan Shorthorn Breeders' Association.

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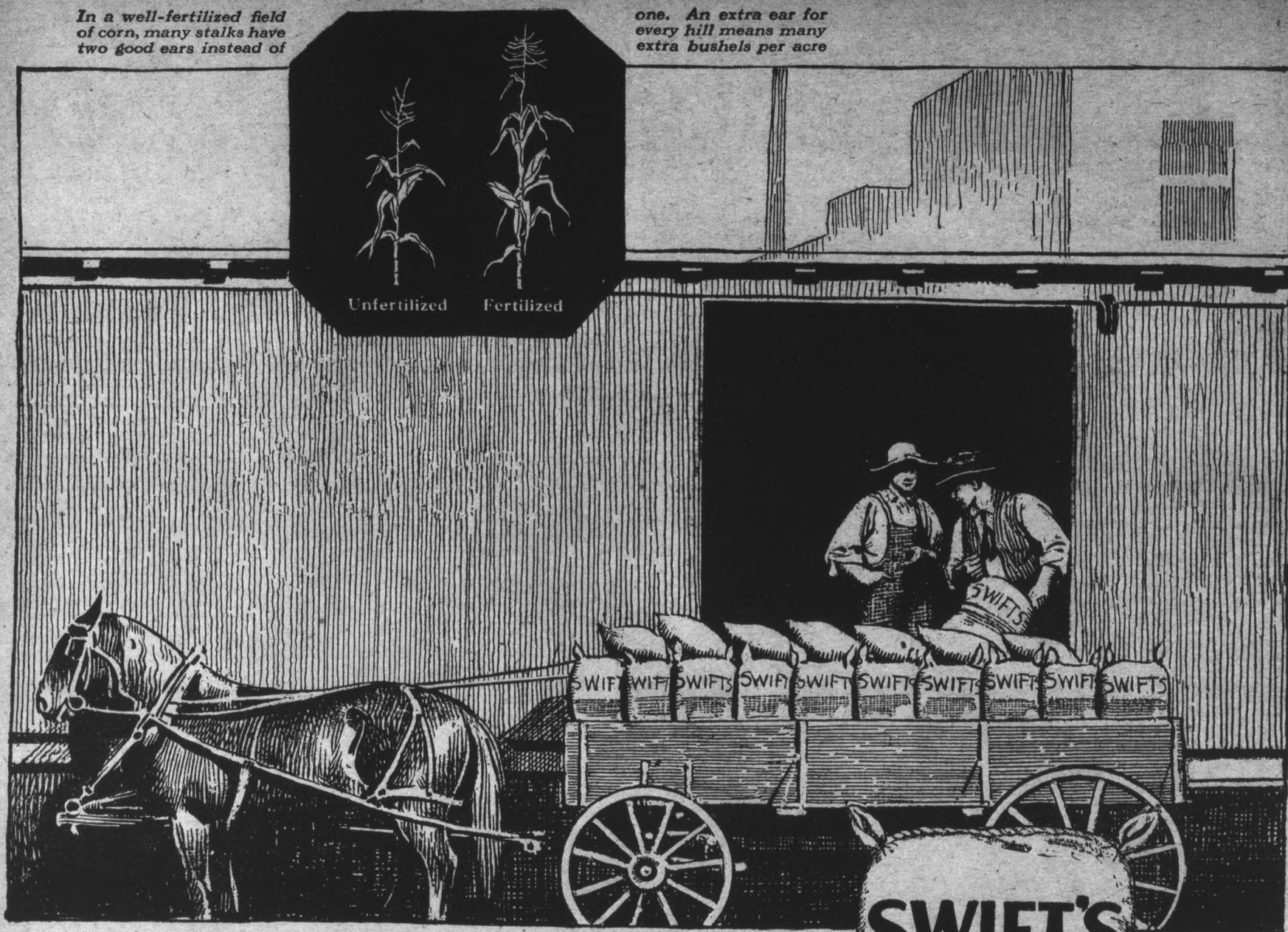
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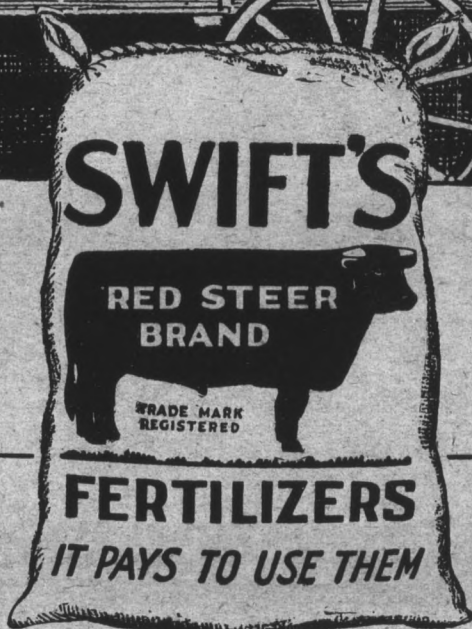
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