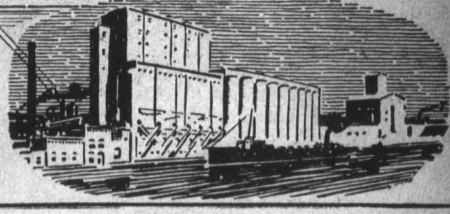


The Michigan **BUSINESS FARMER**



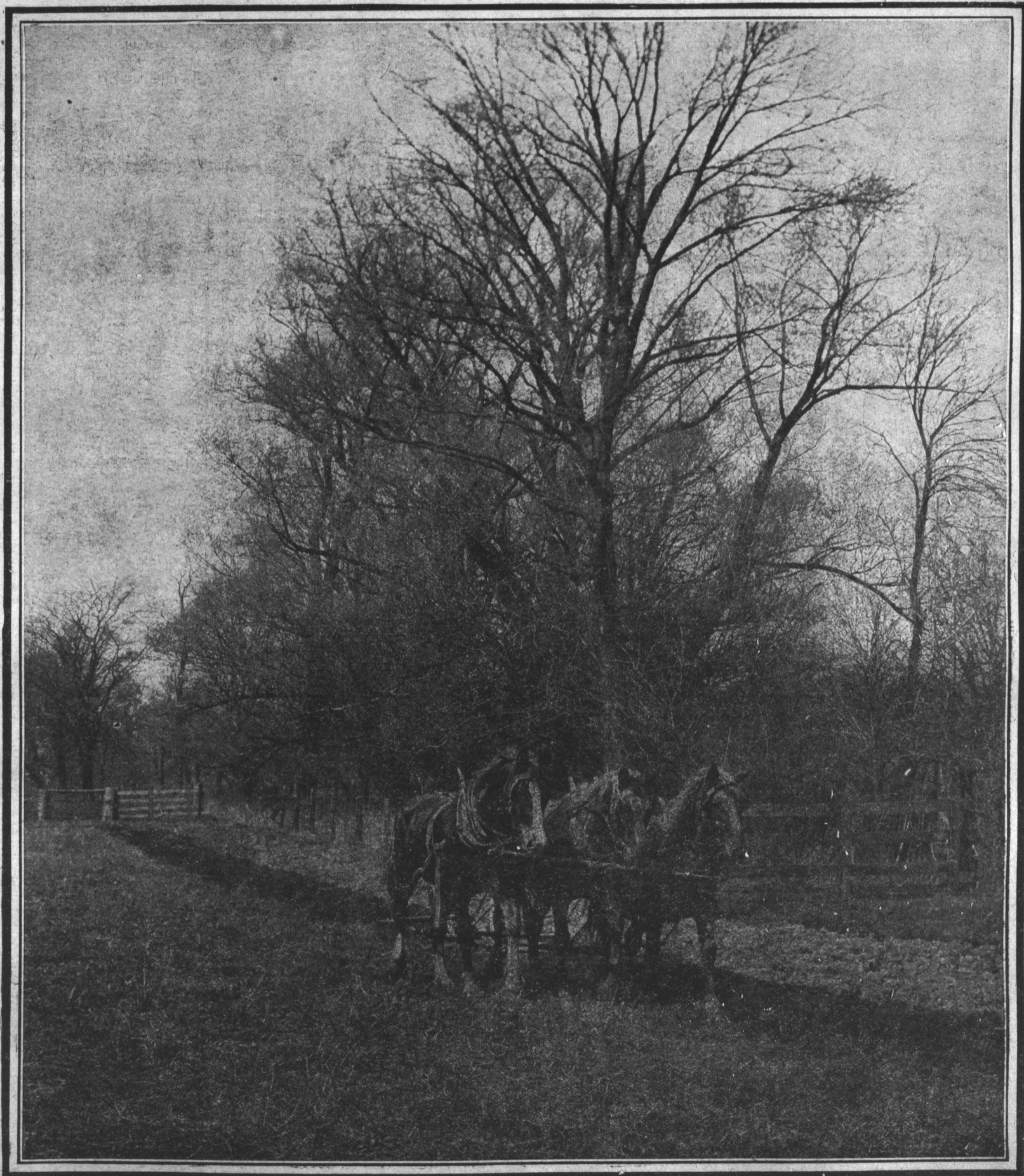
An Independent
Farm Magazine Owned and
Edited in Michigan



VOL. XII, No. 15

SATURDAY, MARCH 28, 1925

TERMS: TWO YEARS \$1
60c PER YEAR—5 YRS. \$2



THREE OF A KIND THAT'S HARD TO BEAT

In this issue: Legislative Mill Threshes Wheat From Chaff—Committee to Study Problems of Bringing Electric Service to Farmers—How Have We Benefitted From Extension Work?

Bean Growers Discuss Federal Grading

A FEW representative bean growers of Michigan met at the Durant Hotel, Flint, Michigan, Wednesday, March 18, to discuss the bean grading situation brought about by the Federal Bureau of Economics which has established federal grading of many staple articles of food with great success. Among the outstanding successful federal grading projects that have been recently noticed is American grown cotton. The adoption by English manufacturers of the U. S. federal grades means that American cotton is being sold to the foreign mills under the grading of American cotton growers.

The other outstanding commodities under federal grading are corn, grain, peanuts, hay, included with probably twenty-five other staples.

Under the chairmanship of J. H. Brown of Byron this meeting considered the present situation. At present a telegram is registered before Mr. Wheeler of the Bureau of Economics, Washington, signed "Michigan Bean Growers Association" which states that because of the present satisfactory grading conditions here in Michigan that the bean growers of Michigan are against the introduction of federal grades.

Mr. Wheeler of the U. S. Bureau of Economics has granted a hearing to the bean interests of Michigan, same to be heard in Lansing on April 24th.

The bean growers of Michigan,

feeling that they ought to be heard upon this all-important question, have advised holding a large number of smaller meetings in order that the 30,000 to 40,000 bean growers may have a voice in the matter.

Any meeting of Farmers' Unions, Farm Bureaus, Granges, Gleaners, cooperative organizations, etc., may obtain all available information regarding the details upon application to the temporary headquarters of the Michigan Bean Growers Association, corner Fort and Brush Sts., Detroit, Mich. Bean growers and others who understand the situation in detail will be furnished for these meetings upon request to the headquarters.

It was apparent that the bean growers of Michigan should be on the alert to see that their interests are fairly represented.

The conduct of the Saginaw Bean Growers meeting was severely criticized by some members present. This meeting consisted of about fifty growers and a number of Michigan bean jobbers who urged strongly the sending of a telegram to Washington protesting against the establishment of federal grades or any interference to grading of beans as being handled at present. Michigan bean jobbers urged strongly that the costs to the Michigan bean growers would be increased into hundreds of thousands or more annually. It appears that

at no time during the Saginaw meeting did any bean jobber present state or read the proposed grades for pea beans then being formulated by the Washington authorities. These grades had been published months before and could have been easily understood as the Michigan Bean Jobbers Association grades. It was explained that because the federal authorities had graded a large number of carloads of beans under a different grade and name than had been used in the marketing of these carloads that it would mean enormous losses to the growers. These jobbers offered no evidence to show why the same customers would not have accepted the carloads of beans because they were differently named. It also seemed strange to the growers at Flint that the jobbers should be so solicitous of their interests at the present time by going so far as to send representatives or committees to California, Colorado, Washington, D. C., etc., with the mission of obstructing the establishment of federal grading on beans.

Stranger still it seemed that the Detroit Free Press should have quoted Clark L. Brody, member of the State Board of Agriculture and Manager of the Michigan State Farm Bureau in part as follows:

"The establishment of the federal grades would cause Michigan bean growers a heavy annual loss."

Mr. Brady, when interviewed stated that he had not given out any such statement and strenuously de-

nied having even talked the matter to a newspaper reporter or even giving a public statement one way or the other.

Bean growers who have studied the situation find that there is a great deal of dissatisfaction among the purchasers of Michigan beans including the bean canners, bean brokers and wholesale grocers. During the past five years representatives of these organizations have met the Michigan Bean Jobbers in convention and registered a strenuous disapproval of the irresponsible class of Michigan bean shippers. Likewise it is seriously questioned by Michigan bean growers whether habitual bean market manipulations do not keep the buying trade in so much uncertainty that they purchase from other bean growing sections because of more staple market conditions.

For example, where there were shipped from the two cities of Billings, Montana, and Twin Falls, Idaho, not to exceed a dozen carloads of Great Northern beans in 1919, in 1924 there were said to have been shipped from these two cities a total of 1200 carloads of Great Northerns at generally higher prices than Michigan beans were commanding.

At the same time canners who "know beans" will not buy these western beans for canning purposes at any price when Michigan beans are available.

Ex-Banking Commissioner of Michigan Frank W. Merrick had ordered a bag of the Montana Great Northerns shipped direct to his home. His wife can cook beans. He stated that the Michigan bean has a far superior flavor to the Montana bean.

Mr. Merrick, who is the custodian of the advertising fund being collected by the Michigan Bean Jobbers Association states that the amount collected has been a serious disappointment to him. He advised the bean growers of Michigan that the bean industry is their greatest "gold mine" and that they should take the advertising campaign into their own hands.—R. V. Judson.

Fundamental Transportation

Into the vast and complicated network of Transportation in Michigan have been knit several accessory types of carriers. Yet it is noteworthy that each of these accessory carriers exists only through service by certain of Michigan's 24 Steam Railroads.

Electric railroads get their power from coal. Steam Railroads bring it to them.

Motor cars, trucks and busses use gasoline for fuel. Steam Railroads bring it from far-away refineries—bring, too, the materials for the paved highways on which motor vehicles run.

Not even ships are self-sustaining. Their coal meets them at the railhead.

Steam Railroads are Fundamental Transportation.

On their faithful performance everything else depends.

This responsibility is ever before the Steam Railroad men of Michigan. And they feel they are meeting it today better than ever before.

Does your experience confirm this belief?

Do you appreciate the absolute need of protecting this Fundamental Transportation from further restrictions adding to the cost of service?

Write this association frankly and fully.

Michigan Railroad Association

400 Railway Exchange Bldg., Detroit, Michigan

(14-27)



SOILS FERTILITY TRAIN

MICHIGAN'S first soils fertility train to be operated jointly by the Michigan Agricultural College and the Michigan Central railroad will start from Grass Lake in Jackson county on April 7. A half day will be spent at most of the stops. The afternoon of the first day will be spent in Jackson. The remainder of the itinerary follows: April 8, Concord and Tekonsha with an evening stop in Union City; April 9, Colon and Centerville; April 10, Cassopolis and Jones; April 11, Niles; April 13, Three Oaks and Dowagiac; April 14, Decatur and Galesburg and Battle Creek; April 16, Marshall and Kalamazoo; April 17, Schoolcraft and Constantine; April 18, Bronson; April 20, Quincy and Coldwater; April 21, Albion and Eaton Rapids.

A soils laboratory will be part of the equipment and soil tests will be made at each stop to ascertain the amount of nitrogen, potash, phosphorus and lime present in the various samples submitted by farmers for examination. Soils specialists will give lectures at each stop. Dr. M. M. McCool, head of M. A. C. soils department, probably will be one of the speakers.

POULTRY BAN IN SIX STATES LIFTED

THE embargo against live poultry in effect since December 12, has been lifted in six states, it was announced by the department of farms and markets March 13. Shipments will be accepted from Missouri, Nebraska, North Dakota, South Dakota, Connecticut and Wisconsin, but the prohibition remains on Iowa, Illinois, Indiana, Pennsylvania, New Jersey and Ohio.

A poultry disease declared to be prevalent in the 12 states was responsible for the embargo.

MICHIGAN MILK EXPORTS RANK HIGH

MICHIGAN'S exports of canned milk and cream rank eleventh among the state's exports, the department of commerce Detroit branch announced recently, and were an important factor in making the 1924 exports of canned foodstuffs the greatest of any year except the abnormal war period.

The Michigan BUSINESS FARMER

The Only Farm Magazine Owned and Edited in Michigan

Published Bi-Weekly at
Mt. Clemens, Michigan.

SATURDAY, MARCH 28, 1925

Entered as 2nd. class matter, Aug. 22, 1917.
at Mt. Clemens, Mich., under act Mar. 3, 1879.

Legislative Mill Threshes Wheat From Chaff

About 650 Bills Introduced to Date and They Continue to Come in Steady Stream

By STANLEY M. POWELL

(Lansing Correspondent of The Business Farmer.)

I HAVE sometimes wondered whether or not, if the Legislature were in session the year around, there would ever be any let up in the number of new bills which would make their appearance. After two and a half months of the present session there are just as many new proposals being dropped into the legislative hopper each day in the House and Senate as there were in the opening days of the session.

A total of about 650 measures have been introduced thus far. Of course, these later bills have very little opportunity of passing as the legislators are already confused with the multiplicity of other bills before them for consideration. The legislative mill is now threshing out the wheat from the chaff at top speed.

In the House it is not unusual for more than a hundred bills to be on the calendar for consideration in the Committee of the Whole or on third reading in a single day. Scores of these measures are appropriation requests totaling millions of dollars, and are passed apparently without consideration and often with merely a motion from some member that "the affirmative roll-call is attached." Only the careful work of the various committees makes such procedure safe as possible.

The Senate spends little time in debate and manages to keep its calendar shorter. Thus far only one issue of headline importance has come to a final vote in the Senate. The exception was in the case of the reapportionment bill to give Wayne county additional representation in the Senate. After killing attempts to grant Wayne county eight or ten seats, the Senate finally passed by a vote of 18 12 a bill to grant Wayne 7 seats instead of the 5 which they now have.

In the debate on this bill, Wayne members talked eloquently about upholding the constitution, but Senator Chas. Herrick of Fenwick reminded them that Detroit did not set a very good example in upholding the con-

stitution when it came to enforcing the Eighteenth Amendment. The Detroit members freely admitted that they wanted more Senators so that in any future constitutional convention, they would have increased representation and have more voice when the State's taxation policy was being formulated. This is just what the rural members feared.

The House Committee on Apportionment is struggling with Representative Chas. Culver's bill which would give Wayne county twenty-five representatives instead of fourteen. If they report out that bill or the bill passed by the Senate there will be a merry fight on the floor of the House.

Road Program Completed

Almost all of the important highway legislation has now been enacted. Both the Ming and Atwood bills have been sent to the Governor for his approval. The Ming bill provides that after January 1, 1926, the state will defray the entire cost of construction and maintenance of trunk line highways. The Atwood bill authorizes the State Highway Commissioner and State Administrative Board to lay out 500 miles of additional trunk line mileage according to the routes which they shall designate.

Recognizing the necessity of doing something to prevent the growing menace of grade crossing automobile accidents in Michigan, the Legislature finally adopted the Richardson bill which would authorize the State Public Utilities Commission to designate especially dangerous railroad crossings and to require the railroads to erect standard stop signs at such crossings. Drivers will be required to bring their vehicles to a complete stop at all crossings so marked. The Richardson bill is a substitute for three or four much more drastic proposals introduced earlier in the session.

One of the most knotty problems with which the House is wrestling is concerning the serious pollution of Michigan streams and rivers through the dumping of sewage and industrial wastes into them. Charged by Governor Groesbeck in his biennial message with the duty of enacting some sort of constructive legislation on this subject, the House is giving serious consideration to the bill sponsored by Representative Smedley of Grand Rapids which would place the authority for investigating and determining instances where pollution becomes a nuisance and requiring municipalities and companies responsible for the pollution to make other arrangements for their waste.

Senate Passes Bohn Bill

Realizing that the present system of distributing the primary school interest fund is not insuring equality of educational opportunity for Michigan boys and girls, but being unwilling to go the limit and adopt such a plan as the Meggison bill or the Escanaba plan which was before the Legislature two years ago, the Senate has adopted the Bohn bill by a 25 to 3 vote. Under the terms of this proposal 95 per cent of the primary school fund would be distributed as at present, while the remainder would be apportioned among the poorer districts in accordance with a carefully outlined method.

As usual, all tax reform bills have experienced very intense opposition and their progress has been slow. A case in point is in regard to bills proposing to end the tax exempt bond evil in Michigan and to place annual specific taxes on such foreign and domestic securities. These bills have the approval of the Senate and House Committees on Taxation and of the Administration, but they have met severe opposition from the Michigan Manufacturers' Association, the Michigan League of Municipalities

and the Investment Bankers' Association. The original bills provided for levies of five mills on foreign bonds and three mills on domestic bonds but they now have to stand at three and two mills respectively.

Have a New Name for M. A. C.

Feeling that it was almost hopeless to get any change in the name of the Michigan Agricultural College through the House of Representatives at the present time, the advocates of such a change have transferred their attack to the Senate. Thursday afternoon, March 19, Senator Norman H. Horton of Fruit Ridge, an M. A. C. graduate, introduced a bill in the Senate proposing to call the East Lansing institution the Michigan State College of Agriculture and Applied Science. The next morning this bill was reported favorably by the committee, and now awaits general consideration in the Senate where it is prophesied that it will be passed by a safe majority.

Makers and sellers of livestock tonics, condition powders, etc., will find little consolation in a bill introduced by Senator Frank L. Young of Lansing to require the licensing and registration of such dealers and to provide for labeling, inspection and analyses of such products. Remedies coming under the provisions of this bill would have to be sold on the basis of a definite guarantee as to ingredients and in printing any analysis, the English rather than the Latin terms would be required. In order to properly control manufacturers and dealers in such remedies, they would be subject to license and stiff penalties for violating any of the provisions of the bill.

Senator Burney Brower of Jackson has introduced a bill providing an appropriation of \$75,000 for the Michigan State Fair at Detroit for each of the next two years. Out of this amount \$25,000 would go for maintenance and operating expenses and \$50,000 for premiums annually during the coming two years.

Committee to Study Problems of Bringing Electric Service to Farmers

By RAYMOND OLNEY

DO the farmers of Michigan want electric service in their homes and on their farms? They do, and what is more they are going to have it.

That question and the answer is the real reason for the conference on rural electrification held at the Michigan Agricultural College at East Lansing, Friday, March 20.

Farmers all over the country are more and more demanding electric service. The electric service companies, on the other hand, have been slow to meet this demand because of the problems involved in taking electric power to the farms. The satisfactory solution of these problems requires the closest cooperation between the farm users of electricity and the utilities companies furnishing it; this cooperation consists largely in a correct understanding by both interests of the particular problems confronting each.

In order to investigate and study the many problems involved in making electric service available to farmers, about two years ago was organized the Committee on the Relation of Electricity to Agriculture. This committee is made up of representatives from the American Farm Bureau Federation, National Electric Light Association, American Society of Agricultural Engineers, equipment manufacturers, and the federal

departments of agriculture, commerce and the interior. In view of the fact that conditions vary in different states, this national committee is encouraging and assisting the various states to organize state committees to undertake a study of their peculiar conditions and requirements.

Fifteen states have already organized and investigations are under way. These state projects working in conjunction with the national committee have served as a balance wheel in rural electrification development. The movement has a tendency to check over-development or unwise development in the application of electricity to agriculture.

The purpose of the conference called at M. A. C. was to consider the desirability of organizing the Michigan Committee on the Relation of Electricity to Agriculture. The meeting was called to order by G. W. Bissell, dean of engineering at the college, who explained the objects of the conference.

Hon. Sherman T. Handy, chairman of the Michigan Public Utilities Commission, one of the principal speakers at the conference, told what the Commission is doing to help rural districts get electric service. The Commission has been exceptionally far-sighted with respect to the need

and possibilities of electric power on the farm.

On invitation of those interested in organizing the Michigan committee, Dr. E. A. White, director of the National Committee on the Relation of Electricity to Agriculture, addressed the conference on the general problem of furnishing electric service to the farmer, relating the experience of other states in organizing for a study of rural electrification.

Dr. R. S. Shaw, dean of agriculture at M. A. C., addressed the conference briefly, expressing great satisfaction that an organized effort was being made to get satisfactory service for the farmer. Dean Shaw maintains that the farmer is bound to have electric service, and that if he was living on his own farm, he would make every effort to get it. In his opinion the accomplishment of greatest importance that can result from giving electric service to the farmer is the improvement in working and living conditions in the farm home.

The afternoon session of the conference was presided over by H. H. Musselman, professor of agricultural engineering at the M. A. C. He explained to the conference that in organizing a committee on rural electrification for Michigan, it was de-

sirable to call in experts on the subject in order to get the benefit of what other states are doing along this line. He introduced Prof. E. A. Stewart of the University of Minnesota who is the director of the Red Wing project in Minnesota, the first project on rural electrification to be started in the country. Prof. Stewart related some very interesting experiences with the experimental work that is being done in that state. The Red Wing project has been a real benefit to both the farm consumers and utilities companies furnishing the power.

Prof. F. D. Paine, of the Iowa State College, related in considerable detail the story of what Iowa is doing to encourage rural electrification development along sound engineering and economic lines.

Eugene Holcomb of the Consumers Power Company discussed the subject of cooperation by the public utilities companies.

The general discussion toward the close of the meeting indicated that genuine enthusiasm prevailed for organization in Michigan with M. A. C. taking the lead in the organization and direction of the movement. Judging from the sentiment that prevailed Michigan is definitely committed to undertaking a program that will result in putting rural electrification in development in this state on a sound basis.

How Have We Benefited From Extension Work?

Review Shows Results in Michigan Cannot Be Estimated Just in Dollars and Cents

By LAWRENCE McCracken

LOOKING backward and summing up their accomplishments during their ten years of service to Michigan farmers, extension directors at the Michigan Agricultural College and their agents in the field believe they can prove that the return in dollars and cents to the state has abundantly justified the appropriation of money they required and the wisdom of the Congress which in 1914 passed the Smith-Lever act has been confirmed.

The Smith-Lever act provided stated sums to be given by the federal government for agricultural extension work in states where the state legislatures appropriated a like amount. In Michigan the sum amounted to \$15,000. To this the state added \$15,000 and the extension work really began its era of expansion here in 1915. Each year the sum was increased until now the total from federal and state sources amounts to \$300,000 which is the limit set by the act.

Ten years have passed and the extension workers have paused a moment to recount the results of their labor.

Reviewing Benefits

First it is pointed out that in 1915 the population of the state was divided with 60 per cent of the residents on the farm and 40 per cent in the cities. This percentage now has been exactly reversed yet, as is shown by the annual crop reports for Michigan, agricultural production in the state has been greatly increased. Part of this increase has been attributed to improved and wider use of labor saving machinery, and part to improved methods of farming, some of which have been learned from experience, part from agricultural schools but most from extension workers who have gone among the farmers and taught them how to increase crops, decrease losses of animals from disease, and how to increase the productivity of their lands.

H. C. Rather, extension specialist in farm crops at the M. A. C. in a report on the activities of his department says, "The story of ten years of extension activities in Michigan insofar as farm crops are concerned is one of the development of two main projects—the promotion of the widespread use of pure seed of the most dependable varieties and the education of Michigan agriculturists to a greater use of legumes.

"These two lines of endeavor justify themselves because they are fundamental to a successful and profitable agriculture. In legumes we have the cheapest source of soil fertility and the most economical roughage for livestock, while the quality of seed is the very foundation of a healthy and vigorous plant life."

Mr. Rather goes on to say that during the last ten years the experiment station at the college has

introduced to the state's farmers Berkeley Rock wheat, Wolverine and Worthy oats, Michigan Black Barless Barley, the original and the improved strains of Robust beans, M. A. C. Yellow Dent, Duncan, and an improved strain of Golden Glow corn and Hardigan alfalfa. In addition to introducing these varieties certified seed has been made available in large quantities to farmers so that today the average quality of seed has been greatly improved and farmers who do not buy certified seed are obtaining higher quality although their seed may be three or four generations removed from the pure seed. Mr. Rather says there is no doubt but that well over 1,000,000 acres of Michigan field crops are being sown to seed of improved varieties and as the yield from improved seed has been positively shown under similar conditions to produce a yield of from 15 to 25 per cent greater than other varieties the value in dollars and cents is obviously great.

Mr. Rather's most striking statement is probably his report on the increase in the production of alfalfa in the state. He says that although alfalfa has been grown with varying success for fifty years in 1919 only 74,000 acres were planted in Michigan. In 1924, 389,000 acres were sown.

As the average yield of alfalfa is 2½ tons per acre while that of other hay is only 1½ tons a great increase in the size of the crop is obvious. Added to this alfalfa is easily worth \$4 more per ton than the hay formerly grown and often brings \$5 or \$6 more. Thus he figures the state has gained \$8,000,000 through learning of ways to grow alfalfa successfully. This was made possible through work at the experiment station at the college where it was found that northern grown seed produced successfully and the distribution of this seed was arranged in cooperation with the Michigan Farm Bureau Seed Service.

Control of Animal Diseases

In the report of the animal husbandry department attention has been devoted to the control of animal diseases, the introduction of pure

breeds, and the teaching of proper feeding. As a result the report states, "In 1914 the average farm brood sow was of a much shorter, chubby or extreme lardy type than today. A few breeders have developed an extremely rangy type but the influence of extension work has aided breeders in selecting and standardizing a medium type that not only answers the market demand but produces more economically than either extreme type. Beef cattle breeders have been aided in selecting for quality and early maturity to meet the shift in market demand toward younger, lighter, well finished heaves."

The report attributes the decrease in disease in the state to the education of farmers to report diseases and to aid authorities in enforcing quarantine. In 1914 the report states that the estimated loss from hog cholera was 73,260 head of swine while in 1923 the loss was set at only 17,535 head. The resume concludes, "Better means of sanitation as taught by extension work has resulted in better prevention of many other diseases and parasites such as ticks and lice on sheep, stomach worms in lambs, round worms in pigs, etc. but figures are not available to make comparisons for the period."

Taught Care of Orchards

V. R. Gardner of the horticultural department reported that the work of his division had been devoted to teaching proper methods of spraying, pruning and fertilization. He says, "Eight or ten years ago it was the general practice in this state to prune young fruit trees extremely severely. The general effect was to delay bearing and interfere for many years with profitable returns from the orchard. Much has been done by the extension service to correct this situation though there is still need of instructional work along this line."

In the poultry division attention has been given the culling of non-layers, introduction of pure breeds, and methods to increase egg returns.

In 1914 there were no cow testing associations in the state while now there are 105. K. H. McDonel, assis-

tant to R. J. Baldwin, extension director reports. These associations test the product of cows for butterfat and help farmers to cull out those which are least productive.

But all these activities are only a part of the service which the \$300,000 brings Michigan farmers. Fifty-five county agricultural agents receive part of their pay from this fund and disseminate information and advice from extension headquarters directly to the farmers. Six state club leaders, with the aid of six full time county club leaders and 10 part time leaders, direct the training of 18,000 boys and girls in sewing, cooking, canning, handicraft, crop raising, livestock breeding, and poultry breeding. A large number of these boys and girls have realized substantial profits from their efforts and some have had a decided influence in bettering crops, livestock and household methods in their communities.

Besides this Mrs. Louise H. Campbell, director of home demonstration work, directs six state specialists and six county agents in the instruction of farmers' wives in household arts. Two of her staff devote their time to clothing and textile work, two to nutrition, and one to home management.

As proof of the value of their services the extension workers point to the attitude of the farmers of the state toward them. When in 1915 they began their work, farmers sickened by the work of self appointed and officious workers, were skeptical of the practical value of the extension service. Now when the chickens are stricken with a mysterious malady, hog cholera breaks out, the barberry threatens wheat, or any of a hundred things which keep the farmer's life from being a monotonous grind, break out they turn to the state and county agents for help assured of conscientious aid not only to save their own property but to save their neighbors from a like misfortune.

Statistics Prove Value

Although the actual value in dollars and cents can not be determined it is proven beyond question by dry crop and livestock statistics for the state that powerful agencies have been at work in the last decade to better the quality and increase the yield of Michigan farm products. Allowing the state extension workers credit for only a small part of this improvement they believe they have proven conclusively that the federal and state appropriations for the service were wise investments. Probably they have been proven wise because the men selected to carry on the work were themselves farmers and appreciated the difficulties of making the "back forty" buy shoes for the children and Sunday dresses for the missus.



FARM BOYS STUDYING TRACTORS AT THE M. A. C.

A group of Michigan farm boys receiving practical training in the Truck and Tractor Course at the M. A. C. The Short Courses at the College are put on in the spring of the year when the boys can get away from the farm without upsetting matters and an increasing number are taking the courses.

If You Want to Produce Choice Potatoes You Must Plant Good Seed

By H. C. MOORE

Extension Specialist, Michigan Agricultural College

DISEASED, degenerate, runout seed potatoes never did produce high yields of high quality potatoes and they never will. High yields and high quality are essential for the successful production and marketing of the potato crop. With low yields, the cost of production per bushel is prohibitive and poor quality potatoes are a drug on any market.

Disease free, vigorous, selected seed is the kind to plant for better yields and better quality. Michigan certified seed potatoes are practically free from serious disease, they come from vigorous high yielding fields and they have the selection back of them that gives them the inherent ability to produce satisfactory yields of high quality potatoes. The planting of Michigan certified seed potatoes is the first essential in profitable potato production in Michigan.

Michigan certified seed potatoes were produced last year by nearly 400 growers in 47 counties of Michigan. These growers practice the most improved cultural methods. They plant only the highest quality of certified seed; they spray their fields five times or more with bor-

deaux mixture using high pressure sprayers; they rogue their fields several times removing all diseased and off-type plants; they hill select their seed stock from isolated seed plots. The consistent practice of such seed production methods over a period of five years helps to explain why Michigan certified seed potatoes have given such uniformly good results wherever planted.

Michigan certified seed potatoes are potatoes that have passed all of the rigid inspection requirements of the Michigan Agricultural College. All inspections are made by officials working under the direction of the College. Two field inspections are made during the growing season to see that the fields are free from diseases and varietal mixture and that the plants are uniformly vigorous. When the potatoes are harvested a bin inspection is made of all lots that passed the field inspections. At the bin inspection, the potatoes must be true to type, practically free from scurf, scab and other blemishes. A

fourth inspection is made when the potatoes are loaded for shipment. Before potatoes can be sold as certified seed, they must be very carefully graded to conform with the strict certified seed grade requirements.

Michigan certified seed potatoes are sold in new sacks that contain 150 pounds. Each sack is sealed with a lead and wire seal to which is attached the official certification tag issued by the Michigan Agricultural College.

Each year approximately 300,000 bushels of certified seed potatoes are produced in Michigan of which about 250,000 bushels are offered for sale. This amount is scarcely enough to plant the potato acreage of Montcalm county if all the potato growers in that county used certified seed. For the whole state of Michigan approximately 4,000,000 bushels of seed potatoes are required annually, so if certified seed were used by all Michigan growers the amount pro-

duced would not go far in supplying the demand.

Last year Michigan potato growers bought 70,000 bushels of Michigan certified seed, while potato growers in Pennsylvania, Ohio, Indiana and other states bought 180,000 bushels. When 72 per cent of this certified seed is sold outside the state, it is evident that Michigan growers are not as appreciative of high quality seed potatoes as are the growers in Pennsylvania, Ohio and some other states. The out of state demand for Michigan certified seed potatoes is due to the excellent results that are secured with them. Data on 916 tests that have been conducted in seventeen states during the past four years showed that Michigan certified seed outyielded seed with which it was compared by 56 bushels to the acre. Just as satisfactory results have been secured in Michigan with tests of this kind. Three hundred and twenty seven tests conducted in twenty-four counties of Michigan showed an average increase in favor of Michigan certified seed of 73 bushels of marketable potatoes per acre

(Continued on Page 23)

THRU OUR HOME FOLKS' KODAKS



"THE OL' SWIMMIN' HOLE."—Doesn't this make you think of the good old days? Mrs. Edw. B. Cole, of Mt. Pleasant, sent the print to us.



ISN'T SHE SWEET?—This is Golden, daughter of Claude Parker, of Hopkins.



WHAT WILL GRANDPA SAY WHEN HE SEES THEM ON HIS FENCE?—E. E. Stearns, of Deersfield, is being visited by three of his grandsons.



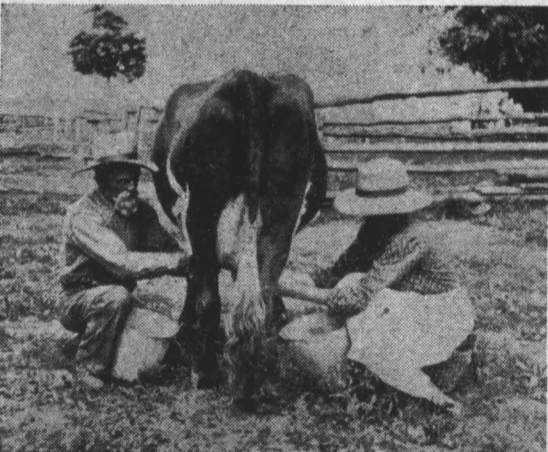
"PUSH ME."—Kniel, son of John Meekhof, Lucas, and his kitty.



"IN THE GOOD OLD SUMMER TIME."—The children of Albert Broadwood and Robert Smith, of Milkado, enjoying themselves. Mrs. Smith sent the print.



SQUIRREL SEASON.—Earl Rathbun of Bryon, always gets his share.



WHO SAID YOU COULD NOT MILK A COW FROM EITHER SIDE?—Mr. and Mrs. John McInnes, of Silverwood, would lead one to believe that the statement that you can milk a cow on the left side only is wrong.



JUST HAVING A GOOD TIME.—Fred Berlin, of Midland, sends us this picture of Karl and John, of the same address, playing with their pal, Brownie. Even Brownie has a smile on his face so everyone must be happy.



HOLD HIM, BOYS!—"The only one of its kind we saw on our trip," writes G. W. Patrick, of Bellaire. "Plenty of does but the bucks seem to be about all gone." We wish you better luck next time, boys.



IN THE CHERRY ORCHARD.—"Under the old cherry tree, where I popped the question and she refused me," writes Merle Knoppenburg, of Reed City.



THE RURAL MAIL CARRIER.—This is Harry J. Green, rural mail carrier at Lake Odessa, and his faithful Ford. Last October he painted all of the boxes on his route, using white for the main part, red for the flag and blue for the lettering. Mr. Green believes in "Service with a smile" and says "The best people in the world live on my mail route."



GETTING A GOOD START IN PUREBRED STOCK.—Harold Stringer, of Reese, has only one registered Holstein calf now but he intends to build up a real herd around it.

BUT I was speaking of Maria. You know last summer a young fellow came along and starts telling about some works of art he has. He is in the picture business and if Maria would give him an ordinary photograph of me which was sitting on the bookcase, he would have it enlarged and make it look like the one he was showing, all for \$2.98. Say, Maria must have been proud of me to have wanted such a colorful looking resemblance of yours truly.

Well, the first I heard of it was when the express man says to me, "There's a package for Mrs. Edwards with express charges of \$9.62 on it. A picture and a frame." I wouldn't take it before I phoned Maria but she admitted it must be all right so I took it home. We uncrated it and here was yours truly painted up like the new clothing store across from the court house.

"Like it?" says Maria.

"Sure," says I, rather doubtfully. Didn't want her to think I wasn't appreciating the compliment.

"But it was expensive," I remarks.

"Well," says Maria, "I didn't plan on such an expensive frame."

"Did you order it?" asks I.

"No," she says.

Well, we dug out the order and here it said that the frame would be included, which Martha didn't read when she signed up.

Say, I got a good laugh out of that. But that picture was worth the price. We had it in the parlor till Ruby, that's our oldest girl, who lives in California, came home and she was so mad Maria took it down and put it upstairs. One night when a rain was coming up and I was shutting windows, I finished it by sticking a foot through it. No one cared for it by that time. We was all convinced that the picture was a bit too good—no human ever looked like that.

It was shipping day last spring and a lot of the boys had been bringing in their hogs so as to get rid of them before the spring work began. Gus Bruhm had several loads of hogs and some of the neighbors had been hauling for him. Gus was sticking around watching the weighing. Between times he and me talked things over.

"Say," says Gus, "did you hear how Andy Miller got stuck?"

Andy Miller was running the Jackson House and was a smart young fellow who knew all about the hotel business, if you believed what he told. When I heard he was stuck, it was good news.

"No," says I, "who has had the honor of putting one over on our prominent young citizen?"

"Well," says Gus, after he had lit up the General Pershing cigar I had given him, "that salesman for the Happy-Hen Coop Co. who has been pestering us for the past year was the bright young fellow. You see, this fellow, I think his name is Hobart, has been coming out here regular like once or twice a week from Omaha and he was pretty chummy with Andy. Hobart got in the habit of having his laundry and other parcels sent here and Andy would pay the charges and collect off of Hobart when he rolled in. You know Hobart, he's the guy who come down to the post office one day and bought all the two for a quarter cigars in the store and then passed them out to us fellows who happened to be in there, just to make a splash.

"Well, to speed things up a bit," goes on Gus after he had lit the General Pershing again, "week before last Andy gets a telegram from Hobart saying a valuable package was coming to him in care of the hotel and he wished Miller would take it up. There was about \$47 charges on the package, according to what I heard at the post office. Well, Andy just sat up that night waiting for a notice from the post office that the package was there and when it did come, shelled out the money for that bundle even though it was a small one. It was like he was buying a gold brick."

"Meanwhile no other word comes from Hobart and yesterday I heard that Fred Kelly was reading a story in his Sunday paper and ran onto a yarn about a fellow by the name of Hobart who was pinched for pulling a crooked deal. That noon Kelly asks Andy about Hobart and then shows him the article. Miller turned pale, Kelly told me, and didn't say nothing, but sent a telegram to Oma-

How Bill Bucked the Tiger

A Farmer's Experience With Slickers, Shysters and Crooks

By WILLIAM EDWARDS

BILL EDWARDS, retired farmer, friend of the folks in his community, has been telling his experiences with the various grafters that thrive by parasitizing on the rural communities. Bill was stung a few times and because he happened to get the best of folks he wrote his story which has been running serially in *The Business Farmer*.

Bill saved a lot of money for folks telling them how to get the best of tricksters. But one time he bit and his wife, Maria, jawed him good for it. But revenge is sweet and Bill had the opportunity shortly afterwards to get even when Maria bit on a picture deal.

Then along came a travelling sculptor who took in the whole town on a sympathy deal. A few passes and the hat was passed for the poor fellow. Later the boys who had been so generous found out all about the fake.

Bill also described what happened to a lady in their community who bit on everything, and the trouble they all had keeping her out of trouble.

ha that afternoon. Anyway Kelly stuck around last night and was there when Andy opened the package. All he got from Hobart was a few old newspapers wrapped around a brick, only it wasn't gold. Andy found out that Hobart's in jail, but was out of luck when it came to getting back his \$47. Believe me, he's a mad hotel man, so if you happen in, don't mention it to him."

Just then another load of Gus' hogs comes up and that was all I heard about it. But I made a point to keep it in mind for the next meeting of the Agricultural Society.

But before we had the meeting we other than the Hon. Chas. Stanton had a better one to talk about. None had been hooked and on a good one, too. Say, Charley left for Chicago the next day and about all we heard from him since is that he plans to go to one of them hog springs for his health, but the boys says it's because he wants things to cool off here before he comes back. The deal didn't cost the boys more'n a dollar each and it was worth that much they say, to put one over on the judge.

Just below the first bridge over the creek is quite a sand bar. When-tar mix in we go down there and ever any of us wants to do any morload up what sand we want and it's cheap building material.

Last week one of the men was there and come onto a fellow dressed in ragged clothes and busy working in the sand. Soon the fact is evident that this fellow is making a figure out of the cold sand. Well, the driver wasn't long in spreading the news up town and soon several of the boys was down there watching him work. The stranger never said a word until he was done. By that time he had completed the prettiest bit of sculpture I seen since he World's Fair. It was a pretty woman lying there with a babe in her arms and it was done right pathetic, specially when the fellow knelt down and begin to sob. Well, he finally gets up and begins to tell us how this was the way he kept in mind his great loss.

The picture was a reminder of his wife and babe, he said, who were drowned in the Ohio flood two years ago. They were all he had. They were swept away so quick he never got over it, and although he had tried to continue his work as an artist, he just couldn't do it. Then he sobbed some more.

Well, Judge Stanton happened to be there just then and it touched him deeply, so deep that he took off his hat and puts a \$5 bill in it and then passed it among the fellows. I even tried to get the fellow to come up town with me and have a bite to eat, but he says, "No, just leave me with my loved ones." But he took the \$13 we raised and the rest of us, feeling like a funeral in action, quietly left. So did our stranger. The next day, to make matters exciting, a deputy sheriff came along with a story about this fellow. It was pathetic too, and we listened to it with interest. So did the judge and that's why he left town that night.

The story the deputy told about how sad it was and then ended up by telling us this fellow made pictures in five towns and taken collections in all of them, or rather, donations had been made. Then he ended up by telling the number of floods his wife and babe had been drowned in and how the chief of police had pinched him for a faker. He was. Say, when they searched that fellow he had two bank books showing deposits of nearly \$10,000.00. They found he was an escaped convict and never was married. There hasn't been much said about the collection and yesterday when I was down to the sand bar the picture had been shoveled away. And as I said, the Judge is away too.

Well, we had our regular meeting last night on schedule and while we did talk a little politics, we got away from that subject just when things were warming up. Hank wasn't a regular member but he came last night because he had a mission. It wasn't long till Hank was talking. He had a letter from

Spain and began to tell us how he was offered a chance to send money to Spain and get a big return.

"Boys, I'm wise to this. It's a fake and cause you boys might get similar letters, I'm here in official capacity to warn you to beware of such letters."

Well, we thanked Hank and he stayed till refreshments was served to show his appreciation of the thanks, I guess, 'cause he slept through most of the program. Just before the meeting was over one of the Smith boys says to Hank:

"Say, Hank, where was that place in Spain where that letter came from?"

"Barcelony," replies Hank, important like. "That's where these Spanish swindlers hang out. You see it's this way. They make believe one of them is in jail and if a few debts would be paid, the fellow could get out. Well, he who was in jail has a lot of property and if a fellow will send enough money to pay the debt, when the fellow gets out he will whack up a third of the estate."

"Sounds good," says Hank further, "but it's a fake."

"Well, the Smith boy kinda laughs and then just as Hank was takin' another cup of coffee and a doughnut, Smith winks at me and begins.

"By the way, Hank, wasn't it your father who went to New York to collect an estate right after the Spanish war?"

"What's that?" says Hank, setting down the coffee and looking wild like.

"I said, wasn't it your father who almost had an estate in Barcelona some thirty years ago?"

Hank says he never heard anything of it. Then he thanked us for the food and left soon afterwards.

"You see," remarks Smith, "the reason Hank knows all about this Spanish deal is that his father gave them same Spaniards several thousand berries on a similar deal. One thing we can thank Hank for is that he remembered why he didn't receive any property when his pa died."

So the meeting wasn't a regular failure. We learned something.

As I recall to mind, I think the prize sucker in our town is Bedeliah Stokes. She's an old maid, no telling how old, although at the last election she was of legal age, and then said she has lived in the county 42 years and someone remarked they had never known her to live any place else.

Well, sir, Bedeliah was always trying out some kind of a scheme. She had a little property left her by an uncle and she got the money every month from the bank, so she could have lived if she had wanted to and attended the Missionary Society meetings and done a lot of useful work. But Miss Stokes had an idea she was cut out to be famous. She painted China for a few winters and sold it to us folks till we was all stocked up with punch bowls, fancy plates and the like, till the cupboards wouldn't hold no more. Then she decorated boxes with one of them burning outfits and they was the rage in Jackson City one Christmas. Everybody gave someone else something burnt. But Bedeliah wasn't satisfied with her work. She got the mail order habit. First she got a lot of catalogs and solicited orders for perfumes and soap. Then it was postal cards she was peddling and as far back as I can remember she had some fad.

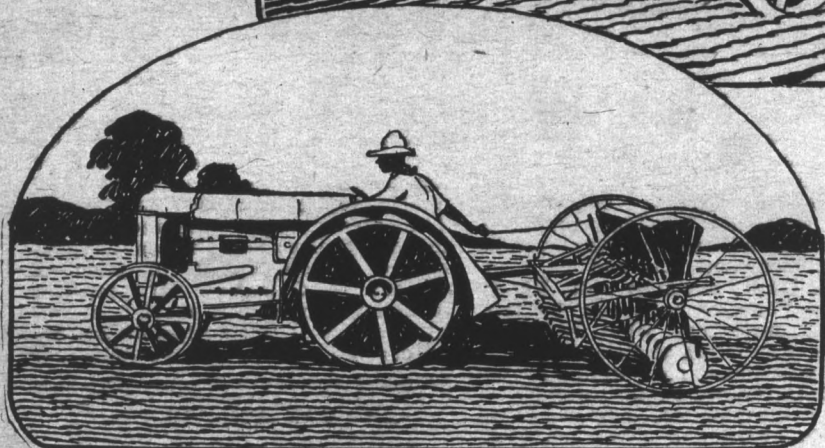
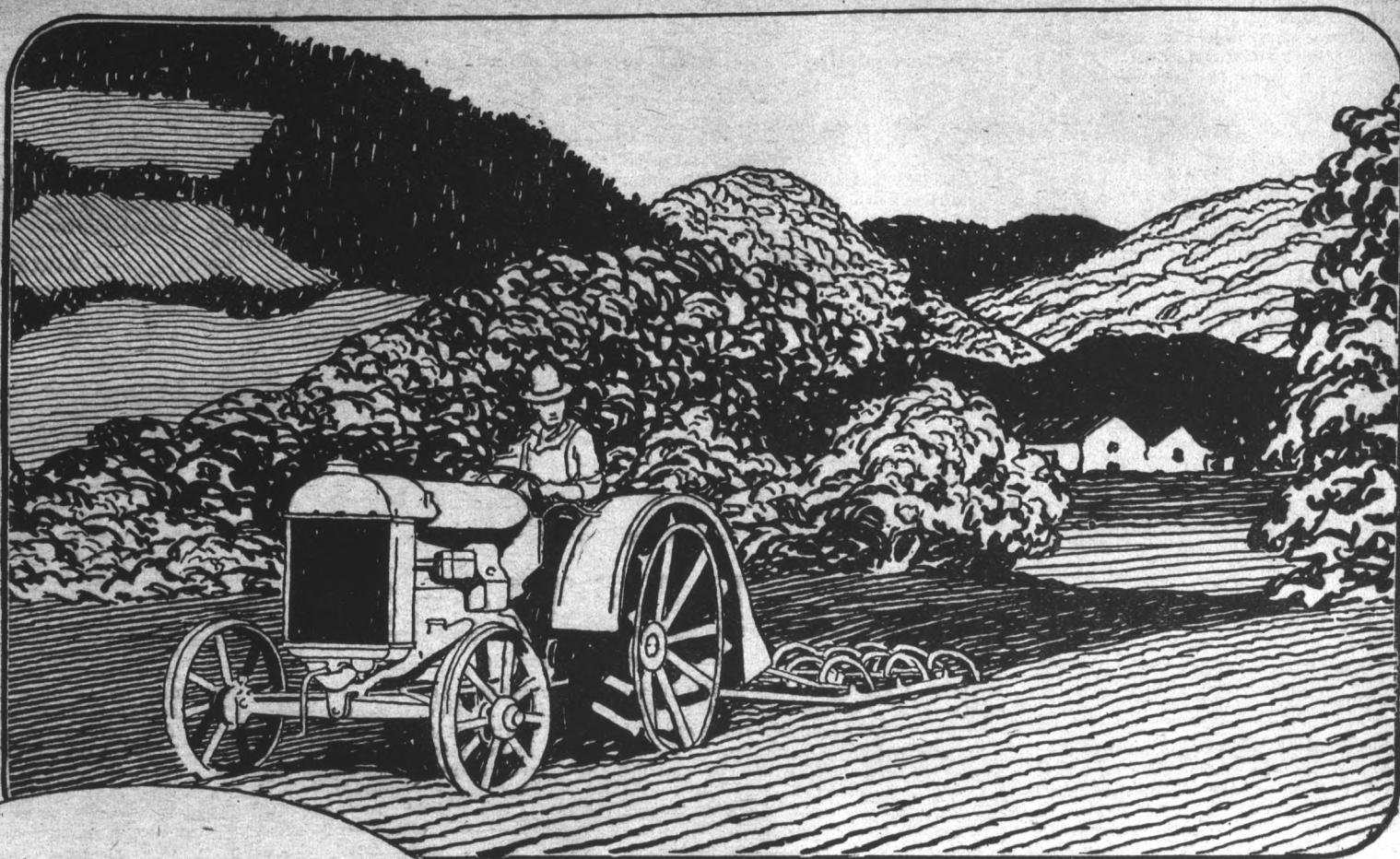
But the nuttiest thing she did was to open up a sock factory. She saw a lot of ads in a paper about how to become independent, and Bedeliah wanted to move to California, where I got a hunch she planned to go into the movies, and she would have been a knockout too with her build, so she started out to be independent.

She borrowed fifty bucks from Jim Harper at the bank. Jim knew he'd get it back so loaned it to her without asking into her affairs. Well, the machine that was to make socks that was to keep us boys warm when we shucked corn, arrived and according to the women it was a dinky affair. But Bedeliah began operations. After using a lot of yarn she finally got one pair of socks that was more like chest protectors than socks, but she exhibited them proudly and said the "Stokes Sock Works" is just ready to start. Well, Bedeliah made socks or tried to make them, all winter. Ordinarily she was cranky enough, but them socks made

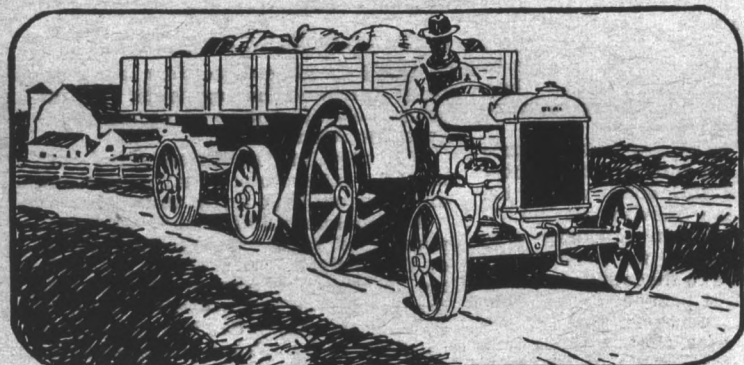
(Continued on Page 31)



We uncrated it and here was yours truly painted up like the new clothing store across the street from the court house.



Grain is quickly planted when a Fordson pulls the drill



The Fordson is always handy when there's hauling to be done

While the Crop is Still in Your Hands

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PAY TUITION

I moved from school district A into district B on December 1, 1924. I wish my children to finish the year in District A, can district A compel me to pay tuition for balance of year? Children are enrolled and drew their public money in district A. I was assessed on both real and personal property in district A. I disposed of my real estate last fall and the buyer paid the taxes. District A refuses to credit me with these taxes because I did not actually pay them. I claim credit for the payment of these taxes as the shifting of this responsibility was a private agreement.—E. R. D., Carland, Michigan.

IF a person moves out of one district into another district he cannot send his children to the district in which he lived without being subject to the payment of tuition if the school board demands it even though he may have had property assessed there and may have had his children on the census list of that district.

It appears from your letter that you had real and personal property, sold it and the buyer paid the taxes, and you are claiming the right to have these taxes applied on your tuition. You are not entitled to have the tax so applied because you did not pay it, nor was it paid on your property since you had already disposed of the property.—W. L. Coffey, Deputy Superintendent of Public Instruction.

MUST HE PAY FOR PLOWING?

A bought a farm and rented it to B for one year with the privilege of keeping it five years if satisfactory. But A let the farm go back. B had done some plowing and wants A to pay for it. The people that took the farm back wants B to stay on the farm. Is A to pay for plowing when B can stay on the place if he wants to.—J. B. M., Marlette, Michigan.

IF B has the privilege of staying on the farm, I doubt if he could hold A for pay for the plowing he has done.—Legal Editor.

NOT ENTITLED TO PAY

I have been teaching school for several years and this winter a member of my family contracted a contagious disease. I notified the district board and they closed the school three weeks. I was not sick myself but was quarantined. There were no other cases in the district at the time. Is there a law governing this? Should I make this time up or is it a matter to be settled between the teacher and board?—C. D., Decker-ville, Mich.

SINCE school was not maintained because of the inability of the teacher she is not entitled to pay for the time school was closed. The district should maintain the number of months voted. The board and the teacher must mutually agree on how the time should be made up.—G. N. Otwell, Supt. of Rural Education, Dept. of Public Instruction.

EGGS AND TURKEYS BELONG TO NEIGHBOR

A neighbor has turkeys and one has a nest of eggs over on our land. Now I would like to know if we had any right to eggs or any of turkeys after they hatched? Thanking you in advance for information, I remain.—P. C., Northport, Mich.

IF the turkeys belong to your neighbor, you would not have a right to any of the eggs or turkeys.—Legal Editor.

PUTTING UP ICE

We have ice packed in our basement 11 cakes long and 5 cakes wide with an air chamber 8 to 10 inches between the cakes. Will the ice keep packed with sawdust during the hot summer months or not? The cakes are all shapes, large and small.—C. S., Chippewa Station, Mich.

THE common method of packing ice is to fit the cakes closely together to form one compact mass. Even under this method of packing ice, the loss under favorable storage conditions, is often as high as 50 per cent. With the cakes 8 to 10 inches apart you will undoubtedly have a very high percentage of loss.

If the saw dust is not already



Farmers Service Bureau



(A Clearing Department for farmers' every day troubles. Prompt, careful attention given to all complaints or requests for information addressed to this department. We are here to serve you. All inquiries must be accompanied by full name and address. Name not used if so requested.)

packed around the ice it would be wise to put cracked ice in the openings between the cakes; even going to the trouble to pour in water and allowing it to freeze.—F. E. Fogle, Assistant Professor, Agricultural Engineering Department, Michigan Agricultural College.

OWNER FURNISHES ALL AND RENTER DOES WORK

I would like a copy of a contract between us and another party on a farm where the first party furnishes everything and the second party does the work.—C. S., Bronson, Mich.

TO go into the details of a complete contract would take considerable space and I do not think it necessary in order to give you the desired information.

Under your proposal "where the

first party furnishes everything and second party does the work", the first party should receive two-thirds of income and second one-third of income from farm.

Such expenses as threshing, silo filling if hired, twine, fuel for threshing, fertilizer, should be borne by both parties in the same proportion as income. The tenant to furnish all labor for farm purpose. The landlord will pay all taxes and insurance and furnish material for upkeep of fences and buildings. Labor for minor repairs to be furnished by tenant.

The system of farming to be carried out should be taken into consideration in the lease as well as many minor affairs such as; time of hauling manure and amount of seed left; keeping weeds down, etc.—F. T. Riddell, Research Assistant in Farm Management, Michigan Agricultural College.



What the Neighbors Say



Contributions Invited

MAKE WEED LAW STRONGER

TO the Editor:—Enclosed find check of \$1.00 for renewal. I would like it very much if you would use your influence in getting the teeth put in the weed law. As the highway commission here claims you can't do very much the way the law is now, I would suggest that upon the first notice from the highway commission one dollar be charged up in the taxes, and if not cut within twenty-four hours the commissioner shall have them cut at the prevailing wages.

We all have quite a time as we cut ours and these would-be farmers, here this year and gone the next, do not make any effort to cut the weeds and do not care, so all our work does not amount to anything.

Maybe you can get something better than what I have suggested.—N. H. G., Jasper, Mich.

THAT GASOLINE TAX

TO the Editor: It is interesting to note the arguments for and against the tax on gasoline. One can at best, merely consider both sides of the matter and then decide as conscience dictates. It is to be tried out now anyway and we shall see how it works. The tax will, no doubt, soon be universal among the states.

In the first place there must be money to maintain and build roads if we are to continue them as we have been doing. The amount of money required has been almost more than the people could well afford, yet the demand for road building is great. It seems the big question is whether we can raise the money without too great a burden of taxation.

Everyone knows that farmers and other property owners have been paying high taxes; of course it is not all road tax, there are other taxes also but the total is large. If roads are to be built and maintained, and it seems they are, it is no more than fair that those who drive most should pay most and the joy-rider should stand his share as well as the business people. We have inheritance tax and income tax for the well-to-do which the low-salaried people and those of little means escape, and as a general thing that is just. The man who only pays dog tax can solve his problem by keeping fewer dogs. The joy-rider can use less gas and solve his problem the same way. Perhaps all will consider pleasure less and business more and meet this tax with little additional expense. I am not for cutting out pleasure altogether mind you, neither am I in favor of a few getting all the benefits while the others "pay the freight."

Not all laws are quite just. Take for instance the widow or someone who happens to own a mortgage, a tax must be paid, while whoever owns the mortgaged property must also pay a tax upon it, and no deduction is made on account of the mortgage. This amounts to a double tax, not really owned and those who own. No one should pay tax on property

a mortgaged property, really do not own it all. The amount of the mortgage is always considered in any business transaction. Why not also in the assessment for taxes?

Then, too, the public school tax and right here let me say that I am opposed to any move to increase the public school funds, until what we already have is more justly spent.

Railroads have not built fast enough to keep up with the needs of the people. This brought the motor trucks into activity to furnish transportation for various commodities. Roads were not intended for such heavy traffic at first, but the situation is to be met some way and we must consider future needs as well. Roads must be honestly built too, by fair minded contractors who will give honest construction at decent figures. Not all roads have been well made as much defective work now testifies.

Just a word in regard to speeding. Much danger and disaster could be avoided if all drivers were careful, but all are not careful so they need to be controlled. A writer to a national publication recently suggested the manufacture of cars that could not exceed the speed limit and that writer was a woman too, bless her. Why go to the expense and trouble to make high speed possible and then call on Tom, Dick and Harry to make them go slower?

If we could have the Golden Rule worked out in all public affairs, how much better off humanity would be. But evil has been gnawing at the vitals of good. So, to preserve progressive civilization, we need to be ever on the alert to discourage wrong and see that right prospers. We may not always be successful in our efforts but the fact that we did our best goes far to clear us of responsibility.—Mrs. Florence Howard, Monroe County.

SUGGEST NAME FOR COLLEGE

DEAR EDITOR: I have lived on a farm sixty years in Michigan and am in favor of changing the name of the Michigan Agricultural College. Call it "The Tax Grabbers' Haven of Rest." Why tax the farmers and drive them off the farm to support an unnecessary institution? It has been a burden to the farmers ever since it was started.—L. B., Manton, Michigan.

FAVORS WIDE SLEIGHS

TO the Editor:—In your issue of January 17th under the heading of "What the Neighbors Say", I read an article by F. W. Newton, Saginaw County, regarding the standard width of sleighs.

I have widened my sleighs and can not see where they are going to be less serviceable as Mr. Newton stated. They will run just as easy and are not nearly so apt to tip over under a top-heavy load as before.

Some of my neighbors have rebuilt their sleighs and others are going to in the near future. All say that the wide sleighs look good to them.—A Subscriber, Pompeii, Mich.

COULD WILL BE BROKEN?

I am a brother of nine in a family, six girls and three boys all married. My younger brother was working my father's and mother's farm but could not get along so my folks want to sign over and will the farm to me, I to pay the girls off. The boys, my folks say, have got their share already. Could this will if signed right, be broken if the sisters or brothers are not satisfied?—O. H. P., Pinconning, Mich.

If the will is properly executed and signed it could not be broken.—Legal Editor.

KILLING HEDGE

I have an osage range hedge that I wish to kill. I sawed it off close to the ground in November. Stumps run from 3 to 8 inches in diameter. I have been told to bore a hole in the heart of the stumps and fill them with kerosene oil. Would this kill them? If not, how would you advise killing them?—J. W. B., Doster, Michigan.

CONSIDERABLE work has been done in an attempt to discover a cheap but effective means of destroying undesirable root stock. The work has been confined thus far mainly to quantitative experiments in an effort to determine just what poisons are most effective. Quantitative experiments unfortunately have never been definitely worked out as to just how much of each poison is necessary to kill the trees. The amount of poison necessary depends on a number of unrelated factors, such as the species of trees, the size of the individual tree and the general vitality of the tree. Kerosene will kill trees but I cannot say just how much would be necessary. Boring holes in the stump is rather laborious work and I would suggest that more certain results could be obtained with much less work and at approximately the same cost by using a stronger poison such as arsenic. The arsenic can be prepared per the following directions or can be purchased in solution in the form of various weed killers. If prepared at home extreme care must be taken to secure a true solution of arsenic or else no results will be obtained.

WHO CAN ANSWER THIS?

I WOULD like to ask a question. Why is it with using a peach twig to locate a vein of water that it will work with some people and not with others?—R. V., Kent County.

If the following directions are carefully followed boring holes in the stumps should not be necessary to secure desired results.

The solution is poisonous and care must be taken to see that people and animals are kept away from it.

Use one pound of arsenic and three pounds of soda to make one gallon of this poison. Arsenic is not soluble in water to any great extent so that soda, either ordinary washing soda or caustic soda, has to be used to dissolve it. When large amounts of the solution are required, washing soda will be cheaper, but for small quantities of solution, caustic soda will possibly be found handiest.

In preparing the solution, whether caustic soda or washing soda is used, first dissolve the soda in a convenient amount of water, using heat, if desirable, to assist and hasten it; then slowly add the arsenic, previously made into a thin paste, stirring all the time; place on a strong fire, and allow it to boil for at least half an hour; stir from time to time, being careful to stand on the side away from the fumes, as being poisonous, they are apt to cause sickness. When the arsenic is thoroughly dissolved, the solution may be made up to the required bulk by adding sufficient water, either hot or cold.

The best time to carry out the work of poisoning trees is when the tree is dormant, that is in the fall or winter months.

Small trees may be cut off low down and the solution may be daubed on with a swab-stick to kill and prevent suckering.

Care should be taken to see that people and animals keep away from the poisoned trees until rain has washed the poison thoroughly away.—P. A. Herbert, Assistant Professor, Dept. of Forestry, Michigan Agricultural College.

[NITRATE OF SODA IN SUGAR BEET FERTILIZATION

A Synopsis of Results Obtained from Investigations Conducted in Michigan in 1922 and 1923

(Reprinted from FACTS ABOUT SUGAR, March 22, 1924)

The investigation, the results of which are summarized in the following article, was commenced in the spring of 1922. Its object, primarily, was to ascertain whether in the culture of sugar beets in Michigan nitrate of soda, applied liberally, would prove as potent a factor as experience has shown it to be in European practice.

In some parts of Michigan the use of commercial fertilizers is little known and their properties less understood. Where used, the fertilizer is too often one almost devoid of nitrogen and consisting chiefly of acid phosphate—typical of many low-grade brands on the market which commend themselves to the purchaser because, being largely phosphatic, they can be sold at a comparatively low price per ton.

Plan of the Experiments

In order to provide conditions which would permit of operations being conducted on a scale consistent with ordinary farm practice, two fields, each 20 acres in area and giving evidence of uniformity in soil conditions, were selected for the two principal experiments. In these it was intended to observe the influence of the fertilizer during the course of a three-year rotation consisting of (1) sugar beets, (2) grain, (3) hay—a rotation conforming to practice approved in the locality. These experimental fields were situated twenty miles apart, one on the farm of W. P. Gavit, at Saginaw, and the other on the farm of Ben O'Toole, at Merrill. The soil on both farms was a clay loam.

Plot	Fertilizer treatment (lbs. per acre)	Method of application	Yields per acre, lbs.	Increase over check, lbs.
1	Nitrate—180 Acid phos.—120 Mur. potash—45	Drilled in with first seeding (reseeded)	25,142	5,164
2	Nitrate—180 Acid phos.—120 Mur. potash—45	Drilled in with first seeding (not reseeded)	22,572	2,594
3	Check		19,978	
4	Nitrate—180 Acid phos.—120	Drilled in with first seeding (reseeded)	26,624	6,646

The plan provided for the application to the greater portion of the experimental field of 300 pounds each of nitrate of soda and acid phosphate, together with 50 pounds of muriate of potash, per acre. This was to be applied prior to seeding.

The balance of the field, divided into four plots of approximately one acre each, served to demonstrate the influence of certain modifications of the general treatment.

Procedure of Experiments

Preliminary trials having indicated that the fertilizers might be most efficiently and conveniently applied by means of the fertilizer-sowing attachment of a modern grain drill, this method was adopted and found satisfactory, it being possible to distribute the full amount, representing 650 pounds per acre, at one operation.

On the plot to which the fertilizer was applied in the row with the seed from the beet drill only 400 pounds per acre of the mixture were used, this amount representing the limit of the beet-drill's fertilizer-sowing capacity. Another acre-plot received fertilizer treatment similar to that of the main area, except that sulphate of potash replaced the muriate, while still another received the fertilizer as a top dressing when the beets were ready for "locking." One acre re-

ceived no fertilizer treatment, being reserved as a check.

Results of First Yield

The results obtained from the sugar beet crop of 1922, grown on the O'Toole and Gavit farms, appear in Table 1: 1922.

A glance at the data presented in Table 1 shows that in both experiments a remarkable increase in the yield from every fertilized plot was recorded. In this they agree, but differ somewhat in the degree of response shown to the various methods of treatment. On the O'Toole farm the yield from Plot 4 was rather

TABLE 1: 1922

		Yields and Increases per Acre (in lbs.)			
		O'Toole Farm	Gavit Farm		
Plot	Fertilizer treatment (lbs. per acre)	Yield	Increase over check	Yield	Increase over check
1	Nitrate—300 Acid phos.—300 Mur. potash—50	31,282	6,426	25,005	8,195
2	Nitrate—185 Acid phos.—185 Mur. potash—30	27,358	2,502	20,330	3,520
3	Check	24,856	16,810
4	Nitrate—300 Acid phos.—300 Sul. potash—50	32,340	7,484	20,590	3,780
5	Nitrate—300 Acid phos.—300 Mur. potash—50	31,100	6,244	17,530	720

larger than that from Plot 1, indicating a slight advantage for sulphate over muriate of potash, whereas on the Gavit farm the position was reversed. It should be stated, however, that a measured acre (fertilized as Plot 1) adjoining Plot 4 on the Gavit farm yielded practically the same as the latter plot. On neither experimental field was a pronounced response to potash fertilizing anticipated, both soils having shown, by analysis, a high potash content.

Another contrast is seen in the results following the application of the fertilizer as a top dressing at the time the beets were "blocked." This plot on the Gavit farm produced a very inferior yield—a result no doubt partly attributable to lack of soil moisture adequate for the quick solution of the fertilizers. The corresponding plot on the O'Toole farm at Merrill produced a yield practically identical with that from Plot 1, and in this connection it is noteworthy that a copious rainfall followed almost immediately the top dressing of the fertilizers on Plot 5.

Respecting Plot 2, on which the fertilizers were drilled in with the seed—a method which cannot be generally commended—owing to failure of the seed to germinate within a reasonable time period this plot on the O'Toole farm was harrowed up and reseeded, whereas no perceptible delay—as compared with the other plots—was noticeable in the germination of the seed in Plot 2 on the Gavit farm.

Supplemental Experiment

Further light on this point was furnished in a supplementary 10-acre test on the O'Toole farm at Merrill. In a ten-acre field of a heavy loam soil the fertilizers were applied in the row with the beet seed. Four acres received the same fertilizer as was applied to Plot 1 in the 20-acre field, and on four acres potash was omitted, the balance of the field serving as a check. While germination proceeded rapidly and vigorously on the check plot, it was so seriously retarded on the fertilized areas that these—with the exception of four rows adjoining the check—were harrowed up and reseeded ten days after the date of the first

TABLE 1: 1923

		Yields and Increases per Acre (in lbs.)			
		Somerville Farm	Heinroth Farm		
Plot	Fertilizer treatment (lbs. per acre)	Yield	Increase over check	Yield	Increase over check
1	Nitrate 300	26,104	4,281	30,075	5,556
2	1-8-4 300	23,012	1,189	27,057	2,538
3	Nitrate 300	29,729	7,906	32,504	7,985
4	1-8-4 300	21,823		24,519	
5	Unfertilized	25,745	3,922	28,897	4,378
6	2-12-2 300	26,075	4,252	28,720	4,201
7	*Nitrapo 300				

*This material consisting of nitrates of potash and soda, was found on analysis to contain 15 per cent of nitrogen and 9.65 per cent of potash.

seeding. The results are seen in Table 2: 1923.

The results recorded here show, on comparing the yields from Plots 1 (with potash) and 4 (without potash) that no advantage was gained by the use of potash in this instance, though the lower yield on Plot 1 does not necessarily imply that the potash had been detrimental. Further it should be remarked with reference to the behavior of Plot 2—represented by the four rows of the fertilized area not reseeded—that though retarded by the fertilizer in proximity to the seed, germination ultimately took place and a full stand of beets resulted. However, though overcoming substantially the lead of the check plot, the yield from Plot 2 fell far short of that from Plot 1, thus furnishing irresistible evidence in favor of applying active fertilizers apart from the seed, or insuring that they do not come in too direct contact in the soil.

Demonstrations on Smaller Areas

Besides the experiments already described, a number of smaller 2-plot demonstrations were introduced in districts adjacent to Saginaw and Merrill. The results from these are given briefly in Table 3: 1922.

The results, it will be seen, were consistently favorable and need no further explanation. The greatest proportional increase gained from the fertilizing was noted in the experiment on the farm of E. K. Kennedy, Swan Creek, where the soil is a light sandy loam, and the fertilizers were broadcasted as a top dressing after the beet plants had reached the rough-leaf stage. The response to the fertilizing was immediate, and, by reason of the vigorous growth of the beets thereon, the fertilizer plot furnished a striking object lesson throughout the season.

As a factor contributing to the success of the first year's experiments one must recognize the favorable weather conditions in the moderately warm, moist summer of 1922. Another factor, which cannot be overlooked, was the helpful, active interest in the work shown by representatives of the Michigan Sugar Co.

EXPERIMENTS IN 1923

Unfavorable weather conditions—a cold May followed by an exceptionally dry June—experienced in the Saginaw district during the season of 1923 influenced yields adversely, so that the tonnage per acre was considerably lower on the average than that of the previous year. Yet, despite these untoward conditions, the returns from the use of nitrate of soda, alone or in conjunction with other fertilizers, have been no less marked, and profitable, than those of the initial year of the investigation.

The scheme of experiment in 1923 was comparatively simple in its nature, being designed rather to demonstrate the proper method of applying the fertilizers and the increase in yield which might be expected from their rational use than to compare the influence of different fertilizers.

In 1923 the scope of the investigation was broadened to include comparisons of single ingredients—also commercial mixtures—and certain combinations thereof, having in view primarily the determination of the individual influence of each. The choice of materials for this purpose was indicated both by local usage and the recommendation of the agricultural college, the former involving the use of the customary 1-8-4 mixture and the latter one of a 2-12-2 formula.

In the two large experiments—on the Somerville and Heinroth farms—nitrate of soda was employed (1) alone, and (3) in conjunction with the 1-8-4 mixture, the 1-8-4 mixture also being applied alone (2). Two other plots were treated with 2-12-2 alone (5) and nitrate of potash and soda ("Nitrapo") alone (6). Plot 4 (check) was unfertilized. The results are shown on Table 1: 1923.

The previous cropping of these areas was as follows: Somerville, pasture in 1921, corn in 1922; Heinroth, hay in 1921, beans in 1922. The Somerville field was lightly manured—about eight tons per acre—in the fall of 1922; otherwise no manure or fertilizer treatment was given in either instance during the two years preceding that of the experiment. The soils of both areas are described as medium loam.

The Heinroth beet crop was declared by common consent the best in the Saginaw district; the records presented in Table 1 show the yields to have been considerably in excess of the average.

A gratifying feature of the results is the marked degree of consistency exhibited in comparing the behavior of corresponding plots in both experiments. The data in Table 1 indicate clearly the influence of the various fertilizers, as measured by the increase over the yield of the check plot. In both instances the highest yield followed the application of nitrate of soda with the 1-8-4 mixture, and

TABLE 3: 1922

RESULTS FROM ACRE OR HALF-ACRE PLOT DEMONSTRATIONS				
Tom Mayer, Merrill. Medium loam				
Plot	Fertilizer treatment (lbs. per acre)	Method of application	Yields per acre, lbs.	Increase over check, lbs.
1	Nitrate 200 Acid Phos. 200	Drilled in with seed but reseeded	30,390	7,250
2	Check		23,140	
E. K. Kennedy, Swan Creek. Sandy loam				
1	Nitrate 300 Acid Phos. 300	Broadcasted after beets were up	18,520	11,472
2	Check		7,048	
Geo. H. Wood, Swan Creek. Sandy loam				
1	Nitrate 300 Acid Phos. 300	Drilled in prior to seeding	29,510	6,890
2	Check		22,620	
C. H. Wiltse, Swan Creek. Medium loam				
1	Nitrate 370 Acid Phos. 370	Drilled in prior to seeding	24,230	11,175
2	Check (which had received 125 lbs. 1-8-3 brand)		13,055	
Clifford E. Wiltse, Freeland. Light loam				
1	Nitrate 300 Acid Phos. 300	Drilled in prior to seeding	24,560	4,665
2	Check		19,895	

nitrate alone was much more effective than 1-8-4. That the 2-12-2 mixture proved superior to the 1-8-4 may indicate a greater need for phosphoric acid than for potash, a surmise supported by the results from Plot 6 ("Nitrapo"), which showed no increase over those from plot 1 with nitrate alone.

As a basis for the calculation of profits from the fertilizer treatment, the value of the crop may be taken as \$9 per ton, and the cost of the principal fertilizers as follows: nitrate of soda, \$3.50 a hundred pounds; 1-8-4 mixture \$2.15 a hundred.

Other Demonstrations in 1923

The results of other, small-plot demonstrations conducted in 1923 were as follows:

On the Clay Loam farm of M. Winterstein, Swan Creek, 300 lbs. of Nitrate showed an increase of 4,363 lbs.

On the Heavy Clay Loam farm of M. E. Barkman, Swan Creek, 150 lbs. of Nitrate showed an increase of 2,544 lbs.

On the Medium Loam farm of Murphy Brothers, Freeland, 300 lbs. of Nitrate on Plot 1 showed an increase of 1,720 lbs; 300 lbs. of Nitrate on Plot 3 showed an increase of 3,520 lbs.

On the Clay Loam farm of Robert Caldwell, Saginaw, 300 lbs. of Nitrate showed an increase of 4,994 lbs.

With the exception of one experiment from which a record of the yields was not obtained, the foregoing shows the results of the investigation carried out in 1923.

Certainly there is enough evidence in this article to convince any grower of Sugar Beets that

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Broadscope Farm News and Views

Edited by L. W. Meeks, Hillsdale County

How Deep Shall We Plow?

ALL authorities seem to advocate deep plowing as the proper thing for gardens and all root crops. Some advocate deep plowing for corn. The finest garden in this vicinity last year was not plowed at all. It was only worked up with a one-horse fine tooth cultivator, and altogether it was about the best garden the writer ever saw. Weeds? Sure there were a multitude of them, but they were killed ere they had fairly started. The subsoil was very firm but about three inches of surface soil was very loose, mellow and easily worked.

While, no doubt, some soils need deep plowing, I believe more times we plow too deep than too shallow. A few years ago I tested the plowing depth on several different fields and for different crops. Some of these experiments may be interesting, and as plowing time will not be far away when my farmer friends read this, it seems an opportune time to tell of some of these plowing tests.

One field of nine acres was a clover meadow for one year, and during the next winter it was covered with manure, about seven loads per acre being used. The clover killed out quite badly that winter, as the fall and early winter were real dry. The field was plowed with a working plow, and after plowing about one-half acre at a depth of seven inches, the plow was set to plow more shallow—in fact, the lead wheel was lowered as far as it would go. The plow was then turning a furrow only five inches deep. This depth was plowed until noon. During the noon hour I took a piece of oak, two by four, and bolted it to the wheel standard, and then to the plow beam, in order to be able to lower the wheel another two inches or so.

The ground was in ideal condition for plowing, and the plow did fine work with a furrow about fourteen inches wide, and only three and one-half to four inches deep. In fact, the spring tooth drag tore out considerable manure and sod as in some places it cut down nearly as deep as the plow had gone. The field was planted with a check row planter about May 10, and planted as shallow as possible, and cover good. About that time we had a good rain, and it was the last rain we had for a long time. This corn sprouted and came up fine, and soon all the roots were in soil deeper than it had been plowed.

The weather continued very warm and dry, which caused the top layer of soil to dry out as deep as it had been plowed. However, this shallow

plowed soil, full of manure and old clover growth, acted as a mulch and the soil beneath did not dry out to any considerable extent, and the corn grew fast and never rolled, wilted or showed signs of needing moisture.

Neighboring fields that were plowed deep, dried out as deep as they were plowed and as the corn had not rooted into the soil below this deep plowing, it was badly affected. It wilted and rolled and did not seem to grow normally in size or color. Our field was plowed so shallow the cultivator tore out the manure and sod almost all over the field, and how dry it all seemed to be!

The dry weather continued until the fore part of July, and by this time the corn on the deep plowed land was so badly affected by the dry hot weather, it never regained what it had lost, and made a very poor crop. Our shallow plowed field continued to grow fine and proved to be the best crop of corn we ever had.

The corn was cut by hand and shocked up wide and rye was sown with a disk drill without fitting the land in the least. The rye grew fine. In the spring mammoth clover was sown. At this time the old, nearly decomposed manure and clover were clearly seen all through the upper soil, and what an ideal seed bed it made for the clover.

The following spring this mammoth clover was sure enough mammoth, and about June 10th it was plowed under, and what a fine crop of those good old Carmen potatoes it produced!

A Test for Oats

We have been commercial growers of potatoes for nineteen years, and oats follow potatoes in our rotation. The potato ground is never plowed for oats, however, the same year we plowed so shallow for corn we tested out the oat field also. A portion was plowed through the center of the field and rolled. This plowed portion was fitted just as the rest of the field. Clover was seeded with the oats. The dry spring was very much more detrimental to the plowed portion, and showed plainly in the oats while the clover was even more seriously affected. It seemed the soil would dry out as deep as it had been worked in the spring—whether it was three inches or seven or eight.

Another Corn Test

The first year we owned this farm we had an old sod field which we put into potatoes. Very early the following spring this field was limed, one bushel of oats per acre were sown, and the field seeded to alfalfa. It was a good growing season. We had intended to cut the oats for hay, but as the weather continued real wet we let them mature and harvested them with a yield of forty-five

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ON JERSEYDALE FARM, ALLEGAN, MICHIGAN.
This is a picture of the house on Jerseydale Farm, at Allegan. A part of the barn can be seen in the background. The farm is managed by Mr. Charles Kemmer.

bushels per acre. The alfalfa was good, and went into the winter looking fine. The winter was one of those up and down kind—zero one week and mud six inches deep the next. In short, it was too much for alfalfa and by spring it was all dead and nearly all on top of the ground. Here was a field we had not expected to spend any precious spring work on, and now it was demanding considerable attention, as it lay there, the alfalfa a perfect failure.

Our first thought was to sow it to alfalfa again, but that spring the alfalfa seed was so high in price we decided to plant the field to corn. A neighbor was induced to help plow it, and it was plowed "round and round" toward the fence. When about two acres in the center of the field yet remained to be plowed, I decided to stop plowing and disk up the two acres and see what the result would be. The neighbor knew the result would be a failure, but I was not so sure. The two acres were simply double disked, and then fitted with the rest of the field. This disked portion had not been plowed since it was plowed for potatoes the second year before. Corn was planted about June first. The season was normal, and there was no difference in the corn crop. One could not tell where the land had been plowed or disked.

I am firm in my conviction that as a general proposition we use the plows too much. I am more and more certain that if we could have a four year rotation with only one plowing, more satisfactory results, with less labor, would be accomplished. No doubt some heavy soils would show some difference in their treatment of one plowing in a four year rotation. My experience is mainly gained on a medium loam soil.

The fields we use in our rotation, which includes the potato crop, have only one plowing in the four years. The rotation consists of—first year, potatoes; second year, oats (disked in) seeded to clover and alfalfa mixture; third year, hay; fourth year, pasture, until about half of the growth is consumed, when stock is removed and the rest of the growth is plowed under for potatoes again. We plan to top dress the potato ground after it is plowed, and several weeks before the potato crop is planted. For the past three years we have grown certified seed potatoes, and our aim is to grow a good crop of medium sized potatoes rather than a large crop of large potatoes.

The medium sized potato seems to be far better for seed than the larger ones. In fact they are also better table potatoes. We believe we could very easily increase our yield if we would sacrifice the quality a little, however the M. A. C. inspection reports for the past three years show our crop to be very good. The manure, if plowed under instead of being used as top dressing, might grow larger potatoes, but these larger ones would not be as desirable. Several years before we began growing certified seed, we learned that the returns from a potato crop were as much dependent on quality as on quantity. The quantity of a potato crop is of little interest to the consumer, while the quality is a matter of great concern.

The above four year rotation has only one plowing. Top dressing after that plowing seems to leave considerable humus near the surface and this is ideal for the oat crop as well as the clover.

One Sure Thing

If corn stubble or potato ground is to be fitted for oats without plowing, this work should be done early, and the oats sown at once. This is imperative on account of the weeds which will be quite sure to come in the oats if they are sown late.

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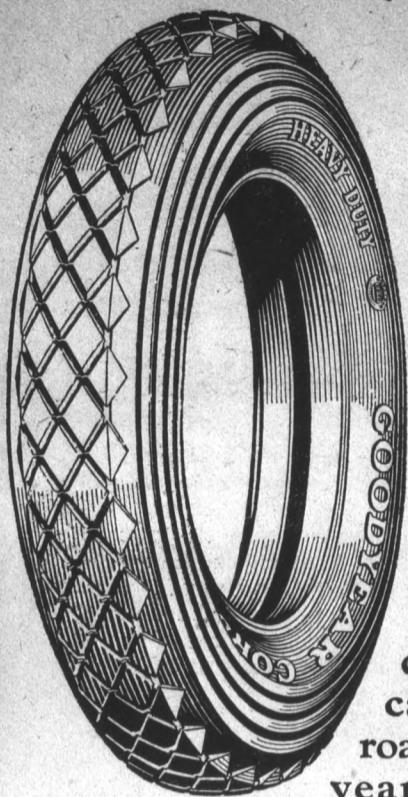
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OUR UNPAID DEBT

A NON-SECTARIAN SERMON BY

Rev. David T. Warner

TEXT: "I am a debtor both to Greeks and to Barbarians, both to the wise and to the foolish. So, as much as in me is, I am ready to preach the gospel to you also that are in Rome." Romans 1:45, 15.

HE had a splendid wife, and two nice boys, and a pretty little farm, and a church and school across the way. He should have been happy. But he was sad and brooding. "And what is your trouble, Mr. Jones?" "O, I am in debt and I would just as soon be in prison." This is what my friend said to me on occasion. It was hard for this man to carry an obligation. He didn't want any personal creditors around. But how different the Christian debtor! Paradoxical as it seems, the debt of the Christian is meant to bring joy and character into life. It delivers him from the prison of sin and selfishness over into the liberty of Grace and unselfishness. "Owe no man anything, save to love one another", another Pauline declaration, constitutes the perpetual indebtedness of the disciple of Christ to all men.

Paul takes the three first chapters of Romans to declare with great positiveness the universality of the sin and moral guilt of all men. The human race had fallen into evil tendencies. But he had reasons that the remedy is as wide in its reach as the disease. "A righteousness of God hath been manifested through faith in Jesus Christ unto all then that believe." The principle of sin is the same in all races, but so the remedy. The realm of sin is not wider than the realm of Grace. There is something beautifully inclusive about the gospel of Christ. Here, at least, all men stand on the same platform of opportunity and hope.

Let us notice first, the Christian's personal reaction to this debt of service. Paul sets the mark for us. In him it became a homesickness. "I long to see you that I may pay off this debt", wrote he to the Romans. We can well believe this, for how many of us have heard the missionaries say as much about their foreign charges. But all of mankind was on the heart of Paul. All men were his creditors. He owed them the Gospel that had been trusted to him for them. "Necessity is laid upon me" said he; and "woe is me if I don't pay off this debt." You see the apostle was one of those men who could not wrap this obligation up in a napkin and forget about it.

But this spiritual obligation to men attaches to every believer in the Gospel. We all are trustees of this truth. Are we worthy of it? Are we selfish with it? Are we trying to save it? Then we shall lose it. What is the matter with that pond of water. Whence the green scum and foul odor? It refuses to give refreshingly to a thirsty soil. It lies there in a land pocket all by itself. Then do you wonder at so many sickly, foul-smelling Christians? And must we keep on giving? Is there not a limit somewhere? Yes, and here is the limit: "As much as in me is." Our debt remains to bless us. We can't get rid of it. We have no other honorable choice than to pay to the limit. But as to how much of it we shall be able to get done depends upon our years, opportunities, and capacities. The one talent man is not expected to do as much as the five talent man, but he must do what he can. Every believer has his own debt to pay and God and mankind will hold him for it. But does every Christian take his obligation so seriously? You answer. But why should anyone want to repudiate his debts? Do we get on a house-top and herald the fact when someone pays his debt? Why not? Because it is but common honesty and self-respect. Now apply this to religion and then see how different the church and the world would be. How about applying it to your own community? If every Christian citizen were in dead earnest about paying off his religious and social debt to the society in which he lives, how like a heavenly city or community we might have!

Now Christians have a debt to so-

ciety because of the fact of human brotherhood implied in Creation. This creative idea throbbed in the hearts of the prophets. "Have we not all one father? Hath not one God created us? Why do we deal treacherously every man with his brother?" Malachi 2:10. Jesus came to earth to establish this ideal in the lives of men. This is the divine solvent for the racial frictions and the religious antagonisms of our or any other day. H. G. Wells, the English author, says that the clashing of the races is the greatest present menace to the peace of the world. How, then, this emphasizes the debt that every believer owes to a world understanding in Christ.

Paul, a Jew, says he is in debt to the Romans, a Latin race, and he tells them about it in a manuscript written in Greek. Verily, this was some new thing, and it all came about in a generation after Jesus proclaimed, "The Kingdom of Heaven is at hand." Faith can now see that this spirit is destined to become world-wide in its work of breaking down racial and culture barriers. "Greeks and Barbarians" and "the wise" and "the foolish" yet exist; that is, the racial and culture chasms represented by this classification. I

May I say a few words in regard to the sermons. I think they are wonderful. The paper would not be complete without them. God be praised that Mr. Warner is well and able to write again. Long may he live to send out the good news. His sermons does good and lots of it.—Mrs. C. A. J., Tuscola County.

suppose we shall have to admit the educational snobbishness and the caste of learning among us that tend to social stratification. But, it is also true that the tendency to oneness through Christian education is growing. Over all the surface divisions of mankind created by race, geography, education, or wealth, there is forming a connecting arch, the keystone of which is understanding and fraternity in Christ. For the Jew Paul, to have had such a faith was every whit a miracle; for that he is peculiarly the chosen race, still dominates the thought and faith of the orthodox Jew. But all this notion is to decay under the pressure of a religion that is persistently working toward the goal of a common Father and a Common Savior.

So then, we all eat and drink out of the hands of one God; we breathe the air, see the beauties, and hear the harmonies of a common Creator. We have the same heart yearnings for goodness and the same heart guilt for sin; and bless God, the same Savior. We are one in Christ Jesus. So, every Christian is set to radiate this fellowship atmosphere in the earth. He is a debtor.

We are debtors to society because of the social heritages that have been and are being passed on to us. My friend purchased property in a rapidly growing American city. In a few years he was wealthy. Why? Because of his personal earnings or efforts? Not that. Then why? Because of his lucky (as he says) location, he became a happy sharer in the economic growth of that section of the city; a sharer in the successes of his neighbors. In a few years he was luxuriating in an unearned surplus. And I said to him one day, "Friend, you owe a great deal to this community because of what the community has done for you." So do we all owe this community debt. Who would want to do without the social order brought by law enforcement, without schools for our children, and without churches for our souls? Then we owe a generous support to these community agencies for righteousness.

Does America owe anything to the world because of imported benefits? Whence the language through which we communicate one with another? Whence the origin of our political and religious liberty? Who is giving us their money today in return for

our surplus products? Do we owe them anything? What should be the shining glory of America today? Carrying to other lands our literature; our school system; our industrial methods; or rather our hearts of good-will and our debt of Christianity? And who knows but that America has come into the community of nations for just such an obligation as this? Even so.

But if we have, we must shift our living standards and revise our motive. The recent Foreign Missions Conference at Washington charged our Western civilization with carrying great evils to distant lands. No wonder the high note of the convention was to first Christianize America. Paul said to his own people, "The name of God is blasphemed among the Gentiles through you." Can that be applied to America today? Therefore, the debt of America to the world is to lift mankind to the high levels of Christian brotherhood.

Thus, we are bound to all men. There are other religions, but they are bounded by race and geography, and they are powerless because they are not full of grace and truth. They are fading out in their contact with a religion that is destined to rule over all tongues. We have this religion. Others do not. That, then, constitutes our solemn call and summon. We are obligated to others in terms of Christian love and fraternity.

BIBLE THOUGHTS

MASTER, THIS WOMAN was taken in adultery. Moses commanded us that such should be stoned: but what sayest thou? . . . He said unto them, "He that is without sin among you, let him first cast a stone at her."—John 8:4, 5, 7.

BOAST NOT thyself of tomorrow; for thou knowest not what a day may bring forth.—Proverbs 27:1.

PEACE I LEAVE WITH YOU, my peace I give unto you: not as the world giveth, give I unto you. Let not your heart be troubled, neither let it be afraid.—John 14:27.

RADIO DEPARTMENT

By JAMES W. H. WEIR, R. E.

GETTING READY FOR LIGHTNING

It will not be very long before we will have spring weather and with the coming of warm weather we must expect more or less thunderstorms. This raises the question as to whether or not your house and set is properly protected against fire from lightning.

We would suggest that you write to the company in which you are insured asking them what you must do in the way of lightning protection. Undoubtedly they will tell you that you must use a properly grounded lightning arrester always connected to your set. The National Board of Fire Underwriters has ruled that this is a necessary precaution and to collect insurance for fire caused by lightning such arresters must be installed.

If you do not want to have a fire in your house, or have your set spoiled by lightning we advise that you install a lightning arrester as soon as possible. They only cost from \$1 to \$3.50 each, and should be of a kind approved by fire underwriters.

You know that your telephone wires are protected by lightning arresters and so should your aerial be. Indoor aerials and loops do not need this protection.

A properly protected aerial has never been known to cause a fire by lightning.

RADIO PROGRAMS

M. A. C. RADIO STATION, WKAR,
East Lansing, 7:15 to 7:30 P. M.
March 30—O. J. Weisner, "Feeding for Egg Production."
March 31—C. G. Card, "Michigan's Poultry Industry."
April 1 and 2—C. M. Ferguson, "Marketing Eggs and Poultry Products."
April 3—H. J. Stafseth, "Poultry Diseases."
April 6—J. A. Hannah, "Poultry Extension Program."
April 7—J. A. Hannah, "Poultry House Construction."
April 8 and 9—C. G. Card, "Incubation Brooding and Feeding of Baby Chicks."
April 10—Harold Canfield, "Sanitation and Disinfectants."



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2 to 3 times
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Square Deal Fence Catalog tells all about: stiff picket-like stay wires that require fewer posts, hold fence tight and trim—no sagging; famous Square Deal Knot that cannot slip; full gauge wires; well crimped line wires firmly gripped to stiff stay wires with a knot that never slips, give good live tension, secure against strains or sudden weather changes. All 3 free to land owners. Write today.

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The Michigan BUSINESS FARMER

SATURDAY, MARCH 28, 1925

Edited and Published by
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GEORGE M. SLOCUM, President
Mt. Clemens, Michigan

DETROIT OFFICE—1308 Kresge Building
Represented in New York, Chicago, St. Louis and Minneapolis by
The Stockman-Business Farmer Trio.
Member of Agricultural Publishers Association
Member of Audit Bureau of Circulations

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RELIABLE ADVERTISERS

We will not knowingly accept the advertising of any person or firm who we do not believe to be thoroughly honest and reliable. Should any reader have any cause for complaint against any advertiser in these columns, the publisher would appreciate an immediate letter bringing all facts to light. In every case when writing say: "I saw your advertisement in The Michigan Business Farmer." It will guarantee honest dealing.

"The Farm Paper of Service"

"THEY SHALL NOT PASS"—UNGUARDED!

FOR the past six months, as you who have followed this page, will remember, we have been calling the attention of railway, automobile and farm organization executives to the alarming growth of accidents at railway crossings.

This was driven home in the untimely death of Prof. Frank Spragg and family of East Lansing, a man who had done as much or more to improve the seed crop of Michigan than any other individual ever accomplished in a lifetime. Yet this valuable life was snuffed out in a railway crossing accident almost in sight of his own home.

Most of you, therefore, will appreciate the fact, that on Tuesday, March 17th, the House of Representatives passed a so-called stop law bill, which requires a motorist to stop his automobile, before crossing a dangerous railroad intersection.

This, we realize, is only one step, but it is in the right direction, and because it is sponsored by the railroads and the railway trainmen, we can now look for their support in securing suitable automatic signals at every "blind" crossing in the state.

The bill, as passed by the house, authorizes the State Public Utilities Commission to designate the crossings at which all traffic shall stop and requires the railroad to establish and maintain large stop signs at these crossings, so that the highway travellers shall have plenty of warning and opportunity to comply with the law.

Among the most earnest advocates of the bill are representatives of the men who operate the railroad trains of this state. They urged that the strain of running trains over thousands of highway crossings in the state, is becoming almost unbearable because so many drivers fail to cross the track with due regard to their own safety and the safety of those riding in the railroad trains. If drivers of vehicles can stop at through streets in the cities as a means of making travel safer, the trainmen argued, there certainly can be no reason for not stopping at railroad crossings where the danger is much greater.

It is obvious that some further regulation should be put in the hands of the State Public Utilities Commission which would make it easier to require railroads to properly protect the dangerous crossings.

The automobile brought with it problems of safety to the public, and of particular interest to the rural community, because of the increase of these accidents among farmers and their families.

We are proud of the part THE BUSINESS FARMER has played in insuring the enactment of this legislation and can assure readers that we will leave no stone unturned until every dangerous crossing in Michigan is suitably protected.

If you know of a "blind" or dangerous crossing in your vicinity which is not protected, we would appreciate your communicating the facts to the editor, and we would especially appreciate a photograph of the crossing.

WHERE THE FIFTY MILLION WENT!

WE are not unconscious of the fact that some readers of this page have criticised our defense of the administration and particularly of the credit which we have given to Frank Rogers the commissioner in charge of the highway program which has been carried on

since the Act 19 made available a \$50,000,000 bond issue in July 1919.

We wish that these critics of our position would take the trouble to write Mr. Rogers for a copy of the book, "Roads Built With the Fifty Million Dollar Bond Issue", which was issued under date of February 2nd, 1925.

We do not contend for one minute that no mistakes were made in the spending of this vast amount of money. We do contend that the work was so gigantic that no human or group of humans could have accomplished what has been accomplished without approximately the same ratio of errors.

So far no reader has pointed out a specific instance of mis-appropriation of highway funds which has not been logically and cheerfully explained and proven by definite figures from the State Highway Department.

The report shows that as of January 1st, 1925, 1711 miles of gravel road had been built, and a total of 1581 miles of macadam, concrete, asphalt and brick pavement laid; a grand total of 3398 miles of road, including 244 bridges of greater than 30 feet span.

For the construction of these highways, the department has spent the \$50,000,000 raised by the sale of bonds and in addition, \$14,000,000 of federal aid, a total of \$64,000,000.

Every farm which lies in proximity of an improved highway, open to motor traffic throughout the year, has been enhanced in value and the total of this increase in farm property value, would, if available, we believe, make this amount spent, great as it is, look pigmy.

The social, educational and religious advantages of good roads cannot be measured in dollars, and if we have helped to make farm life in Michigan more attractive, and helped to maintain a sound agriculture, with farm boys and girls remaining on the farms, then it has been worth while, no matter what the cost.

We feel that Michigan today can be justly proud of her road system.

We believe that from this point on a more conservative program can be carried forward, based largely on the return from the gasoline and other privilege taxes, from those who use the roads.

We do not lose sight of the fact that our good roads will bring millions of dollars of tourists' money, which will be spread to Michigan farms and industry. In other words, we feel that the \$64,000,000 has been one of the best investments the state of Michigan has ever made and we again commend those men who helped to make it a reality.

Some day a monument will probably be erected to the men who built the first paved roads in Michigan so we can not feel that it is unbecoming to pin a posey in their lapels while they can still enjoy its fragrance!

SHALL OUR RIVERS BE SEWERS?

PRACTICAL christianity and good citizenship both demand of us that we jealously guard the rights of our fellowmen and conserve and develop the natural resources with which Providence has so abundantly blessed us. Nature has spread her gifts with such a lavish hand in America that we are just beginning to appreciate the solemn obligation which is ours to protect this heritage for future generations.

We may talk ourselves black in the face about fish and game laws, closed seasons, fish hatcheries, bag limits and other similar more or less ineffectual methods of conserving fish and other forms of wild life, but there is one thing that is fundamental and of primal importance. We refer to the prevention of wholesale pollution of Michigan streams and rivers through making them open sewers into which industrial wastes, acid, alkalies, oils and municipal sewage is dumped promiscuously regardless of the serious consequences to fish and wild life, public health and the tourist attractions of our fair state.

Space does not permit a lengthy portrayal of the vicious and disgraceful conditions which now exist along such rivers as the Flint, the Grand, the Saginaw, the Huron and the Kalamazoo. As Michigan becomes more and more of an industrial state and as our great centers of population grow and multiply by leaps and bounds, the problem becomes more and more perplexing and the menace ever more ominous. The only bright feature of the whole situation is that conditions have become so serious that they are attracting attention from those whom we trust may aid in their solution. For instance, Governor Groesbeck in his message to the legislature when that body convened for its present session, declared:

"Little headway has been or is now being made to stop the unnecessary pollution of our water supply—rivers, streams and lakes. Your committees having charge of this subject should, if possible, formulate a scheme of procedure that will mark the beginning of a bona fide endeavor to properly and sanely handle the issues involved

and so centralize the responsibility for carrying out legislative enactments and policies that there will be no further doubt as to their execution."

Acting under this urgent request from the Governor, the legislature now has before it the Smedley Anti-Pollution bill (House Bill 235, File 105). The purpose and aim of the bill is certainly commendable. Its provisions seem fair, reasonable and statesmanlike. Its enforcement would be placed in the Department of Conservation, doing away with the present overlapping of jurisdiction of the Department of Conservation, the Department of Public Health and the Attorney General's Department.

We shall watch developments on this legislation with interest, and earnestly commend the Smedley bill to the careful consideration of the members of the Legislature and of our readers.

STICKING TOGETHER OR BEING STUCK

THE mills of the Gods grind slowly, but they grind exceedingly small." Farmers are the most conservative class of people on earth, but certainly it cannot be said that they are unprogressive. They are not only adopting better methods of individual production, but they are learning to work together for the solution of their common problems in a measure totally undreamed of by the farmers of yesterday.

A case in point is the way in which the steer feeders and dairymen got together when the so-called Espie bill was attracting so much consideration and discussion before the Senate Committee on Agriculture recently. This measure, introduced by Rep. John Espie of Eagle, would have prevented the importation of any untested cattle, including feeding steers, into any county where bovine tuberculosis eradication work was being carried on.

The bill had the strong backing of the dairy interests of the state, which desired protection of their herds from possible infection which might be brought in through untested feeding stock. With this support it passed the House by a strong majority and went to the Senate, but the steer feeders saw practical difficulties in carrying out the provisions of this bill on a commercial scale, so they arranged for a big hearing to be held before the Senate committee and planned to bring in a large delegation of steer feeders and register vigorous protest.

However, it appeared to some farm leaders that such plans could only lead to a jam and a wrangle which would confuse the Senate committee and make it appear to the city members that the farmers were divided and did not know what they wanted. With this thought in mind, a conference was held on the night preceding the public hearing, and after both sides had explained their position, a committee was appointed which reached a satisfactory compromise and submitted it at the public hearing the next morning. By so doing the feeders and dairymen have set a splendid precedent in real agricultural co-operation.

When farmers learn to think individually and yet act collectively through their organizations and abide by the decision of the majority it will be the dawn of a new day in rural life. Agriculture can never be placed on a plane of equality with other industries until farmers are effectively organized so that they may have a united voice in halls of legislation and whenever their interests are at stake.

FARMERS' LEGISLATIVE PROGRAM

FARM organizations in California, including the State Grange, Farm Bureau Federation, Farmers' Union, Farm Legislative Committee and marketing organizations are united in a statement that public utilities owned by cities shall be taxed, and that issuance of all tax-free securities shall be prohibited.

These two propositions are perfectly logical when it is considered that cities operating public utilities issue tax-free securities with which to construct the same, thus exempting large properties from taxation, and at the same time enabling large financial interests to escape their federal income taxes.

Tax-free, city-owned utilities built with issues of tax-free securities create a privileged condition for dwellers in cities and cast a double burden upon the owners of the farms that is arbitrary, unjust and absolutely unfair in its operations. The Petaluma Argus, championing agriculture's major legislative program, says, editorially:

"Those who evade this state tax live almost entirely in our cities. The amount of this tax, now being shifted upon the backs of those who live outside the larger cities, especially upon the farming class, amounts to millions of dollars annually.

"There are good and substantial reasons why publicly owned utilities should contribute to the cost of maintaining the state government in exact proportion with privately owned public utilities, and no good and valid reasons why they should not do so."

PUBLISHER'S DESK

INDIANAPOLIS CANCER HOSPITAL

WHEN we originally received the advertisement from the above institution, from our advertising representative in Ohio, we secured his endorsement of the proposition before the advertising was inserted in our columns. Then for over a year, we carried this advertising continuously and never having a complaint, we did not further question it.

Two months ago, however, a reader questioned the advertising, and we withdrew it from our columns, pending an investigation, which we are just bringing to a close, and which we are pleased to state not only gives this institution a clean bill in our minds but shows, in fact, that they are doing worthy work in curtailing, at least, the ravages of one of humanity's most gruesome scourges.

We make this statement based on letters from more than a dozen patients in the state of Michigan, who have written us regarding their experiences with the Indianapolis Cancer Hospital, and who have without exception, volunteered their testimonials of the service rendered by this institution.

Apparently all that the American Medical Association has against this institution is the fact that they advertise their services, which we believe, if practised by all physicians, would have a salutary effect on the efficiency of their methods.

We have always held the idea that if doctors were forced to advertise the number of cures or kills they made, in competition with others in their same profession, who were bidding for work, it would have a tendency to improve the quality of their service and be of genuine benefit to the public.

We don't mean for one moment that we believe in all advertising doctors, but we do believe that a good doctor ought to advertise that fact, and because he does will not make him a poor doctor.

SPANISH PRISONER IN JAIL AT LAST

THE famous "Spanish Prisoner" who for years has solicited the sympathy, assistance and funds of people all over America, has at last landed in jail according to reports from Spain. And his name is "General" Ramon de Santa Clara.

Our readers will remember the expose of this world wide fraud we published in the November 8th, 1924, issue of THE BUSINESS FARMER. You will remember how his scheme was to write a letter to the intended victim telling that he was imprisoned in Spain by bankruptcy and "I beseech you to help me to obtain the sum of 360,000 dollars I have in America, being necessary to come here to raise the seizure of my baggage, paying to the Registrar of the Court the expenses of my trial and recover my portmanteau containing a secret pocket where I have hidden two checks payable to bearer for that sum. As a reward I will give up to you the third part, viz: 120,000 dollars." He then stated he could not receive the letter in prison and ask that it be directed to a friend whose name he gave, and concluded with "First of all answer by cable, not by letter."

The reader who sent us the letter we published with our expose did not

fall for the bait but enough people have been victimized during the last fifty years, it is declared, that he has accumulated a comfortable fortune.

We heard of a man in Brooklyn, N. Y., who received one of these letters and replied by cable. He had considerable correspondence with the "Prisoner" and finally went to Spain. After spending most of his money he received a check and the instructions not to attempt to cash the check until he heard further from them. Shortly after landing he received the following letter from the "Prisoner":

"Dear Sir: The object of this letter to you is to reveal the whole affair which you came here about. Being without friends, to make our living we thought of this method to save us from the crisis we are in.

"The check we gave you is without doubt a wet paper, likewise all the operation we made has all been comedy, and so we notify you so you won't be foolish and present the check to cash it, for you are liable to arrest for presenting a false document.

"In case our business-prosperers we would return the money you have given us with much pleasure. We hope you may prosper in business and make your fortune. Just because the world calls us Gentlemen of Industry, don't think for a minute that we have no noble blood. So permit us to mention again that we hope you may gain your fortune, and so, wishing you good speed in life, I am, sir, yours truly, R."

BALD FACTS ABOUT BALDNESS

"Enclosed please find circulars about hair restorer, etc. Is this a fake or are they reliable people and responsible and will they return the money as agreed if you receive no benefit from use of same?"

I HAVE never heard of the Koscott Laboratory of New York City and have had no occasion to investigate them, but after reading their literature I would say that I am skeptical of their proposition.

You know and I know that for ages scientists and medical men have been searching the world over for a treatment that would produce hair on a bald head and the only way they have found successful so far is to purchase a wig.

Some publications are full of advertisements of this nature while all the time baldness is on the gain.

Not long ago I read an article by a well known scientist and he declared that the day was coming when the human race would not have hair at any time during their life. I have heard many arguments on this matter and it seems that nearly every scientist has his own solution as to why people are becoming bald more and more. I put the question to a doctor who is rather bald himself and he laughingly replied "Because man is not a fur bearing animal". I think his answer is as good as any.

If the treatment offered by this company is such a sure cure they should be able to furnish you with complete names and addresses of any number of people throughout the United States, many of them in Michigan or in nearby states who had used their treatment and tell you in glowing terms what they thought of the wonderful treatment.

"TIP SIN" WILL NOT CURE TUBERCULOSIS

THE National Vigilance Committee has issued a bulletin regarding John Hamburg at Coeur d'Alene, Idaho, who is advertising "Tip Sin" at \$3 a bottle with the statement, "Tuberculosis bacilli destroyed in six days." The bulletin states that some periodicals have accepted this advertising because the word "Tip Sin" has been registered in the U. S. Patent Office. Attention is directed to the fact that registration of a trademark carries with it no endorsement whatever as to the merits of the product to which it is applied. The National Vigilance Committee announces that all advertising of this character is essentially fraudulent.

First Mortgage Real Estate Gold Bonds

The safety and generous interest yield of the first mortgage bonds we offer have earned them a sound preference among the more successful farmers.

Write for Booklet AG1372

Tax Free in Michigan

Normal Income Tax Up to 4% Paid by Borrower

6½%

Federal Bond & Mortgage Company

(1372)

FEDERAL BOND & MORTGAGE BUILDING, DETROIT

It's the Planting that Makes the Home

APPLES, 5-6 ft., All the leading varieties..... \$55.00 per 100
PEARS, 5-6 ft., All the leading varieties..... 75.00 per 100
CHERRIES, 5-6 ft., All the leading varieties..... 70.00 per 100
PLUMS, 5-6 ft., All the leading varieties..... 70.00 per 100
PEACHES, 3-4 ft., All the leading varieties..... 32.50 per 100
GRAPE VINES, 2 yr. No. 1..... 15.00 per 100
COMPLETE ASSORTMENT BERRIES, ORNAMENTALS, VINES and ROSES. GROWERS FOR FORTY YEARS—ORDER WITH CONFIDENCE.

FINGER LAKES NURSERIES

450 Washington St.

Geneva, N. Y.

FREE This Valuable Farm Account Book and Catalog of Super-Zinc-ed WIRE FENCES

Super-Zinc-ed Fences are armored against rust by the heaviest coating of zinc that can be successfully applied to wire. By our improved process the zinc is so closely bonded to special-formula steel wire that it will not crack or peel.

You now get Super-Zinc-ed rust protection in both Columbia Hinge-Joint and Pittsburgh Perfect Stiff-Stay Fences, made in standard farm and poultry styles, and in our superb and distinctive lawn fences. They are sold by a dealer near you.

Send for our catalog giving full information about these long-life fences; we also send you a valuable vest-pocket book containing pages for farm accounts, live stock and crop records, seeding information, etc., both sent free.

Pittsburgh Steel Co.

709 Union Trust Bldg.
Pittsburgh, Pa.

KILL RATS QUICK THIS NEW SURE WAY NOT A POISON

Why suffer hundreds of dollars' loss every year from the ravages of rats and mice when you can now so easily get rid of every one of these pests in less than a week?

Rat-Flu, the wonderful French discovery, recently increased to triple strength by our expert bacteriologist, is sure, quick death to rats, mice and all rodents, but absolutely harmless to pets, animals and human beings. It is not a poison. Charles Griffin writes: "Your Rat-Flu is marvelous. I used a bottle and after three days I found 19 rats outside, dead and dying." The Underwood Poultry Farm writes: "Recently we have seen many sick rats dragging themselves away and find many dead ones in the weeds. Your Rat-Flu is working in good shape."

Rats Die Outside

When just one rat eats this deadly Rat-Flu it becomes infected with a fatal, contagious Flu. Others become infected. They can't get well, but rush outside and die while seeking air and water. No odor, no dead rats to handle, no live rats to kill.

Special Introductory Offer

To further introduce our wonderful rat killer, we will send you our regular 6-ounce \$1.50 bottle of Rat-Flu for only \$1.00 prepaid, enough to kill all rats and mice on your place. Use as directed for 30 days. Then if you are not satisfied, we will return your money.

If not convenient to send money today, just send your name and address. We will send the Big Bottle and you pay \$1.00 plus postage when delivered. You run no risk. Send today.

Agents Wanted In Every Community.
AVALON FARMS MFG. CO.
3325 S. Oakley Ave., Dept. 2801, Chicago

The Collection Box

The purpose of this department is to protect our subscribers from fraudulent dealings or unfair treatment by persons or concerns at a distance.

In every case we will do our best to make a satisfactory settlement or force action, for which no charge for our services will ever be made, providing:

- 1.—The claim is made by a paid-up subscriber to The Business Farmer.
- 2.—The claim is not more than 6 mos. old.
- 3.—The claim is not local or between people within easy distance of one another. These should be settled at first hand and not attempted by mail.

Address all letters, giving full particulars, amounts, dates, etc., enclosing also your address label from the front cover of any issue to prove that you are a paid-up subscriber.

THE BUSINESS FARMER, Collection Box
Mt. Clemens, Mich.

Report Ending March 23, 1925. 2639
Total number of claims filed..... \$26,403.16
Amount involved..... 2178
Total number of claims settled..... \$24,237.13
Amount secured.....



A Bag of ALPHA CEMENT

combined with water will bind together several cubic feet of sand and twice as much stone or gravel.

Result: handsome, permanent improvements that you will never have to replace because of rot, rust or fire. ALPHA CEMENT improvements require no paint. They save you money year by year.

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*The ALPHA Dealer
is the Cement-Service man
of your community
Call on him*

THICK, SWOLLEN GLANDS

that make a horse Wheeze, Roar, have Thick Wind or Choke-down, can be reduced with

ABSORBINE

also other Bunches or Swellings. No blister, no hair gone, and horse kept at work. Economical—only a few drops required at an application. \$2.50 per bottle delivered. Book 3 R free. ABSORBINE, JR., the antiseptic liniment for mankind, reduces Cysts, Wens, Painful, Swollen Veins and Ulcers. \$1.25 a bottle at dealers or delivered. Book "Evidence" free.

W. F. YOUNG, Inc., 369 Lyman St., Springfield, Mass.

Why Not PUT THIS NEW MILL ON YOUR OLD TOWER

ALBION

Albion steel and wood mills are quiet and powerful. One-third the working parts of any other mill. Only main Pulley bearing subject to wear. This is oilless, and easily replaceable. Govers by dependable weight without springs. Fits any 4-post steel tower. Why not shorten your chore hours now with a good Windmill? This is your chance—F. O. B. Albion. Erect it yourself. Ask your dealer, or write direct to

Union Steel Products Co. Ltd.
Dept. 84
Albion, Mich., U. S. A.

DON'T WEAR A TRUSS

BE COMFORTABLE—
Wear the Brooks Appliance, the modern scientific invention which gives rupture sufferers immediate relief. It has no obnoxious springs or pads. Automatic Air Cushions bind and draw together the broken parts. No salves or plasters. Durable. Cheap. Sent on trial to prove its worth. Be ware of imitations. Look for trade-mark bearing portrait and signature of C. E. Brooks which appears on every Appliance. None other genuine. Full information and booklet free in plain sealed envelope.

MA.C.E. BROOKS
2074 STATE ST., MARSHALL, MICH.

Fill a Big Job

Qualify in Eight Weeks to Earn Real Money in the Auto and Tractor Business

Come to the great shops of McSweeney where thousands of dollars have been spent in the latest tools and equipment. Stay only eight weeks, then step out as an expert. My training made Louis Beimer a Foreman at the age of 24. It started O. H. Justus in what is now a big business. It enabled E. Rushfeldt to earn \$10 a day. It has helped hundreds of others to do as well or better.

Big Firms Need Men

I get calls every day from Garages, Battery Stations, Auto Repair, Welding Shops, and other successful firms for McSweeney men. The big fellows need trained men right away and they know where to come for them.

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That's my proposition for a short time only to help fill these vacancies. But that's not all. If you write at once I'll give you the lowest tuition rate ever offered.

Get This Big Free Book

This large illustrated book tells how others are succeeding. It tells many things you ought to know about Autos and Tractors. Write for it and short-time offer now before it expires. Write to nearest school for it today.

McSWEENEY AUTO & TRACTOR TRAINING SHOPS

Dept. 142
9th and Walnut Sts., Cincinnati, Ohio
1815 East 24th St., Cleveland, Ohio

Dewberry Plants

4 for 25c; 25 for \$1.00. 12 Grape Vines for \$1.00; 3 Peach Trees, \$1.00; Hollyhock seed, 10c package.

MARSHALL VINEYARD, Paw Paw, Michigan.

WHEN WRITING TO ADVERTISERS PLEASE MENTION THE MICHIGAN BUSINESS FARMER



The Indian Drum

By William MacHarg and Edwin Balmer

Copyright by Edwin Balmer

(Continued from March 14th issue.)

"I THINK I can be here this afternoon."

Alan said.

"Would two-thirty suit you?"

"As well as any other time."

"Let's say two-thirty, then," Spearman turned and noted the hour almost solicitously among the scrawled appointments on his desk pad; straightening, after this act of dismissal, he walked with them to the door, his hand on Sherrill's shoulder.

"Circumstances have put us—Mr. Sherrill and myself—in a very difficult position, Conrad," he remarked. "We want much to be fair to all concerned."

He did not finish the sentence, but halted at the door. Sherrill went out, and Alan followed him; exasperation—half outrage yet half admiration—at Spearman's bearing, held Alan speechless. The blood rushed hotly to his skin as the door closed behind them, his hands clenched, and he turned back to the closed door; then he checked himself and followed Sherrill, who, obviously to Alan's excitement, led the way to the door which bore Corvet's name. He opened it, disclosing an empty room, somewhat larger than Spearman's and similar to it, except that it lacked the marks of constant use. It was plain that, since Spearman had chosen to put off discussion of Alan's status, Sherrill did not know what next to do; he stood an instant in thought, then, contenting himself with inviting Alan to lunch, he excused himself to return to his office. When he had gone, closing the door behind him, Alan began to pace swiftly up and down the room.

What had just passed had left him still breathless; he felt bewildered. If every movement of Spearman's great, handsome body had not recalled to him their struggle of the night before—if, as Spearman's hand rested cordially on Sherrill's shoulder, Alan had not seemed to feel again that big hand at his throat—he would almost have been ready to believe that this was not the man who he had fought. But he could not doubt that; he had recognized Spearman beyond question. And Spearman had recognized him—he was sure of that; he could not for an instant doubt it; Spearman had known it was Alan whom he had fought in Corvet's house even before Sherrill had brought them together. Was there not further proof of that in Spearman's subsequent manner toward him? For what was all this cordiality except defiance? Undoubtedly Spearman had acted just as he had to show how undisturbed he was, how different he might be to any accusation Alan could make. Not having told Sherrill of the encounter in the house—not having told any one else—Alan could not tell it now, after Sherrill had informed him that Spearman opposed his accession to Corvet's estate; or, at least, he could not tell who the man was. In the face of Spearman's manner toward him to-day, Sherrill would not believe. If Spearman denied it—and his story of his return to town that morning made it perfectly certain that he would deny it—it would be only Alan's word against Spearman's—the word of a stranger unknown to Sherrill except by Alan's own account of himself and the inferences from Corvet's acts. There could be no risk to Spearman in that; he had nothing to fear if Alan blurted an accusation against him. Spearman, perhaps, even wanted him to do that—hoped he would do it. Nothing could more discredit Alan than such an unsustainable accusation against the partner who was opposing Alan's taking his father's place. For it had been plain that Spearman dominated Sherrill, and that Sherrill felt confidence in and admiration toward him.

Alan grew hot with the realization that, in the interview just passed, Spearman had also dominated him. He had been unable to find anything adequate to do, anything adequate to answer, in opposition to this man more than fifteen years older than himself and having a lifelong experience in dealing with all kinds of men. He would not yield to Spearman like that again; it was the bewilderment of his recognition of Spearman that had made him do it. Alan stopped his pacing and flung himself down in the leather desk-chair which had been Corvet's. He could hear, at intervals, Spearman's heavy, genial voice addressing the ship men in his office; its tones—half of comradeship, half of command—told only too plainly his dominance over those men also. He heard Spearman's office door open and some of the men go out; after a time it opened again, and the rest went out. He heard Spearman's voice in the outer office, then he heard it again as Spearman returned alone into his private office.

There was a telephone upon Corvet's desk which undoubtedly connected with the switchboard in the general office. Alan picked up the receiver and asked for "Mr. Spearman." At once the hearty voice answered, "Yes."

"This is Conrad."

"I thought I told you I was busy, Conrad!" The phone clicked as Spearman hung up the receiver.

The quality of the voice at the end of the wire had altered; it had become sud-

denly again the harsh voice of the man who had called down curses upon "Ben" and on men "in Hell" in Corvet's library.

Alan sat back in his chair, smiling a little. It had not been for him, then—that pretense of an almost mocking cordiality; Spearman was not trying to deceive or to influence Alan by that. It had been merely for Sherrill's benefit; or, rather, it had been because, in Sherrill's presence, this had been the most effective weapon against Alan which Spearman could employ. Spearman might, or might not, deny to Alan his identity with the man whom Alan had fought; as yet Alan did not know which Spearman would do; but, at least, between themselves there was to be no pretense about the antagonism, the opposition they felt toward one another.

Little prickling thrills of excitement were leaping through Alan, as he got up and moved about the room again. The room was a corner, and there were two windows, one looking to the east over the white and blue expanse of the harbor and the lake; the other showing the roofs and chimneys, the towers and domes of Chicago, reaching away block after block, mile after mile to the south and west, till they dimmed and blurred in the brown haze of the sunlit smoke. Power and possession—both far exceeding Alan's most extravagant dream—were promised him by those papers which Sherrill had shown him. When he had read down the list of those properties, he had had no more feeling that such things could be his than he had had at first that Corvet's house could be his—until he had heard the intruder moving in that house. And now it was the sense that another was going to make him fight for those properties that was bringing him to the realization of his new power. He "had" something on that man—on Spearman. He did not know what that thing was; no stretch of his thought, nothing that he knew about himself or others, could tell him; but, at sight of him, in the dark of Corvet's house, Spearman had cried out in horror, he had screamed at him the name of a sunken ship, and in terror had hurled his electric torch. It was true, Spearman's terror had not been at Alan Conrad; it had been because Spearman had mistaken him for some one else—for a ghost. But, after learning that Alan was not a ghost, Spearman's attitude had not very greatly changed; he had fought, he had been willing to kill rather than to be caught there.

Alan thought an instant; he would make sure he still "had" that something on Spearman and would learn how far it went. He took up the receiver and asked for Spearman again.

Again the voice answered—"Yes."

"I don't care whether you're busy," Alan said evenly. "I think you and I had better have a talk before we meet with Mr. Sherrill this afternoon. I am here in Mr. Corvet's office now and will be here for half an hour; then I'm going out."

Spearman made no reply but again hung up the receiver. Alan sat waiting, his watch upon the desk before him—tense, expectant, with flushes of hot and cold passing over him. Ten minutes passed; then twenty. The telephone under Corvet's desk buzzed.

"Mr. Spearman says he will give you five minutes now," the switchboard girl said.

Alan breathed deep with relief; Spearman had wanted to refuse to see him—but he had not refused; he had sent for him within the time Alan had appointed and after waiting until just before it expired.

Alan put his watch back into his pocket and, crossing to the other office, found Spearman alone. There was no pretense of courtesy now in Spearman's manner; he sat motionless at his desk, his bold eyes fixed on Alan intently. Alan closed the door behind him and advanced toward the desk.

"I thought we'd better have some explanation," he said, "about our meeting last night."

"Our meeting?" Spearman repeated; his eyes had narrowed watchfully.

"You told Mr. Sherrill that you were in Duluth and that you arrived home in Chicago only this morning. Of course you don't mean to stick to that story with me?"

"What are you talking about?" Spearman demanded.

"Of course, I know exactly where you were a part of last evening; and you know that I know. I only want to know what explanation you have to offer."

Spearman leaned forward. "Talk sense and talk it quick, if you have anything to say to me!"

"I haven't told Mr. Sherrill that I found you at Corvet's house last night; but I don't want you to doubt for a minute that I know you—and about your damning of Benjamin Corvet and your cry about saving the Miwaka."

A flash of blood came to Spearman's face; Alan, in his excitement, was sure of it; but there was just that flash, no more. He turned, while Spearman sat chewing his cigar and staring at him, and went out, and partly closed the door. (Continued in April 11th issue.)

SOILS AND CROPS

Edited by C. J. WRIGHT, Cass County

Contributions Invited—Questions Answered

ALFALFA

FOLKS are beginning to plan on sowing alfalfa. The idea of this article is not to condemn the methods of others or paint a picture, overdrawn as to the place, of the master legume crop of the farm.

Throughout the farming world the cry has been raised "raise alfalfa" and great steps have been taken toward the goal.

A great many failures have taken place among those who tried to grow it, and a fair average of successes has also been noted and every failure or success has had its underlying cause.

These causes have been determined and while the crest has not been gained we know enough about the essentials of growing it that anyone anywhere in Michigan can grow it if he has the following things at his command. First, a drained piece of soil (because alfalfa will not grow in water) the richer the soil the better the growth, with alfalfa as any other crop. Second, a limed soil or a natural sweet soil. Third, a solid, well-worked seed bed. Fourth, plenty of inoculation with nodule forming bacteria. Fifth, Grimm or hardy northern grown seed. Much has been said about how to sow alfalfa and when you sum it all up, it does best sowed as a crop, and not as a catching seed in some other grain as in nearly every case the protecting crop becomes a robber and limits the growth of the alfalfa plant, although some good stands have been obtained that way.

The best ground for alfalfa is a rich sandy loam, but it will grow good on a heavy clay loam but as a rule the second cutting is not as rank as on the lighter loam.

If your ground is sour you must lime it and there is no way of getting around it. Let me say if you have plenty of manure and humus as you will find in an old garden alfalfa will grow there even if it has not been limed and many times people think if they can grow it in the garden they can grow it in the field and in every case they are doomed to disappointment. But the farmer as a rule is from Missouri and will try a stunt like this to satisfy himself.

How much lime shall I use? is the question of most people. That depends on the section in which you live, but in any case not less than 2 tons of ground limestone per acre and your success will be much better if you use from three to five tons of the ground limestone.

If you are not convinced of this sow a strip with two tons, one with 4 or 5 tons along side of each other and watch the crop each year and it will tell you the story far better than it can be put on paper. Lime should be sown as long before sowing the seed as conditions will permit. In most cases where land is plowed in the fall lime should be sowed as early as possible the following spring and well harrowed in the soil as a lime particle must be brought in contact with a soil particle in order to neutralize it, so the early application with frequent harrowing until seedling time is the best. This frequent harrowing retains the moisture and nitrifies the humus in the soil so when the seed is sown it springs up like magic even though it is seeded during a drouth.

This frequent harrowing and early plowing and liming is the big augur in raising the crop. From June to the later part of August is the ideal time for seeding although some good stands have been grown by sowing in the early spring and as late as the later part of September, but they are the exception rather than the rule. Eight to twelve pounds of good Grimm or northern grown common seed is enough according to how you sow—with a seed drill or broadcast and sow the seed as shallow as it can be sowed and yet be covered. Many a good prospect has been ruined by getting the seed sown too deep.

Some times a dashing rain, such as we get at this time of the summer, will cover the little plants up with soil after they have sprouted and have two leaves started so it is necessary to have the ground as free from ridges and lumps as possible.

We have been caught on our farm in this manner and have had the

crops practically spoiled. This may not happen as bad on sandy or gravelly soil as on the heavy clay soil of this section as it usually crusts after a hard rain. We have sown alfalfa on Saturday, July 4th and on Monday, July 6th it would be up. That doesn't seem possible, but it is a fact. And by all means don't forget to inoculate the seed with nodule forming bacteria as all of the previous steps are practically worthless unless you do this and the cost is so small that you can not afford not to do it. Twenty-five cents will buy enough to treat one bushel of seed but one can use two or three bottles for one bushel. You can get it of your county agent or the M. A. C. We generally use three to four bottles per bushel as you can not get too many of these little organisms in your soil and if you sow broadcast lots of them are generally killed by the sunlight before the seed gets covered.

The old method of inoculation by taking soil from one field to the other has been done away with, and by using the pure bacteria cultures it is done so much more easily and efficiently.

There is one fact about alfalfa that one does not hear about and few people have thought of it. Its roots penetrate in many cases 20 to 40 feet deep and it derives lots of its chemical food from these depths and stores them in the plant tissues of its make-up, thus rooting 10 to 20 times deeper than any other crop on the farm and reaches a food supply that is reached by no other farm crop. It also produces two or three times as much hay as the other members of the clover family and runs as high as 60 per cent protein, which is 15 per cent more than the clovers or vetch, making it by far the best forage for dairy cows. It, like its other relatives of the clover family takes when the bacteria is working 66 per cent or two-thirds of the nitrogen it uses from the air. It is a heavy feeder of lime, phosphorus and potash, in fact one of the heaviest of the farm crops and where a person can do it, an application of from 300 to 500 pounds of acid phosphate can be used to a big advantage.

A top dressing of stable manure or fine rotted manure of any kind applied real early or just before seeding is of great benefit. Though one gets extra trouble from weeds by so doing it is one of the factors in getting a good seeding.

We can sum this article up as follows: Plow your ground early in the fall before if possible. Lime early with from 3 to 5 tons of ground limestone per acre. Harrow the ground shallow and often. Sow with Grimm without nurse crop from June to September 1st. Be sure to inoculate seed with plenty of culture. Plant seed shallow. Manure if possible as top dressing. Use 300 to 500 pounds of acid phosphate per acre if possible. You may think that this is too costly and causes too much trouble to get a good stand but this is what happened in our own experience, we being the first to raise alfalfa in this section. Our soil is a clay loam covered originally with beech, maple, white wood and walnut. Folks said that we could not raise alfalfa on the land and I want to tell you what we did on a one and three-quarter acre plot of land. This one and three-quarter acres was a neck of a field caused by taking out a building site and orchard. It had been farmed with the rest of the field for years. I plowed this ground right after oat planting having manured it rather heavy throughout the spring. It was a June grass sod. After it was plowed I put on ten tons of fine limestone divided into three strips of three tons, four and a half tons and six tons per acre, running lengthwise of the lot. Then I sowed 1,000 pounds of 16 per cent acid phosphate on the lot and top dressed it again with manure. I kept it harrowed until July 17th and I sowed it with 22 pounds of Grimm seed inoculated with two bottles of culture, using a grass seed drill. The lime cost \$40.00, acid phosphate \$18.00, and seed and culture cost \$22.50, making a total cost not counting labor and manure of \$62.50 or better

(Continued on Page 22)

Zinc Insulated

AMERICAN FENCE

Strength and Durability

Zinc Insulated American Fence with its heavy uniform zinc insulation against rust is as different from ordinary fence as Banner Posts with their railroad rail construction and slit wing anchor plate are different from ordinary T-Steel Posts.

Banner Steel Posts with their railroad rail design have the strength to hold the fence securely in line, plus the solidity to withstand the strain of installation and many years of hard service.

Easy to Attach Line Wires

Continuous rows of notches close together, running up and down both sides of the post, provide easy attaching of line wires.

Wires easily fastened with Zinc Insulated "Hump" Fastener, which snaps on both sides of the post and holds wires securely.

Also note how the notches extend out and away from the body of the fence so that snow, moisture, etc., cannot lodge, and start rust.

Large Anchor Roots the Post Into the Ground

Note the split fins. As the first fin cuts a slot in the soil the second fin crowds dirt over it and the third fin closes the opening cut by the second. Banner Posts hold their anchorage while the fence is being stretched. Design Patented.

American Zinc Insulated Fence (insulated against rust) and Banner Posts are sold at no extra charge, yet give you so many more years of service, that they provide the most economical fence you could own. See them at your dealer's.

Practically all of the leading railroads in the United States use our fence and posts. Our fence is selected and used each year to enclose pens at the International Live Stock Exposition held in Chicago.



BANNER

—FORMERLY ARROW

R.R. RAIL SECTION STEEL POSTS

American Steel & Wire Company

Chicago New York Boston Birmingham Dallas Denver

RADIO GENUINE FRESHMAN MASTER-
piece. 5 tube sets complete with
batteries, tubes, \$25 loud speaker \$90.00. New
standard parts cheap. Rebuild your old radios.
Prices on request. **JOSEPH AMSTER**, Paw Paw, Michigan.

FOR SALE—DUNLAY STRAWBERRY \$3.50
per 1000; Gibson strawberry \$4.00 per 1000;
9 other varieties. Black Raspberry \$12.00 per
1000; Red Raspberry \$16.00 per 1000. A
line of trees. Write for prices.
FRED STANLEY, Bannock, Michigan.

DEAR girls and boys: Hurrah for the contests, and hurrah for the girls and boys who keep me so busy every time we have one! I am never happier than when surrounded by heaps of letters from the members of the Children's Hour, and I am very happy now because the letters are piled so high around me that I can hardly see over them—and more come in every mail.

The judging on our motto, colors and pin contest has been concluded and the prizes are being forwarded.

The motto finally chosen is "Do Your Best" and was submitted by Ethel Fay Sharp, of Akron. The second best motto, according to the judges was "Never Say Fail". Odeal Levassem, of Auburn, wins second prize for sending it in.

The popular color combination was blue and gold, and Anna Elizabeth Smella, of Standish gave the best reasons for using these colors so first prize went to her. She said blue means loyalty and gold happiness. Second prize on colors went to Violet Luepnitz, of Allendale.

First prize for the suggestion as to the design to have on our pin was awarded to Anna Bliss, of Bancroft, and Lola C. D. Ewald, of Unionville, won second.

Let's stop and consider our motto and colors more fully. They are:

Do Your Best Blue and Gold

Stop and think what the three words, "Do Your Best" can mean. If you will do your best you are bound to be a success in this world. And the colors, blue and gold, loyalty and happiness. Loyal to your parents, your friends, your associates, your club, your country and its flag, and yourself. While happiness explains itself.

We hope to have the pins soon, but do not get impatient because I want all of you to have one and wear it proudly, and I will let you know as soon as I receive them.—UNCLE NED.

P. S. You have noticed that I did not tell you what is to appear on our pin. That's to be a surprise.—U. N.

OUR GIRLS AND BOYS

Dear Uncle Ned:—I am a new writer who wants to join your merry band. I am a girl age thirteen and I am in the eighth grade at Albion Junior High School. My father carries your magazine to all the farmers on route 4 and has been doing it for ever thirteen years.

My chief pleasure is to go with him on a bright, sunny morning. We have been having some fine weather here in Albion and every Albion citizen hopes that it will stay for a good long visit.

We have had a "Dollar Day" here and the streets were terribly crowded.

I am sending what I think will be a good motto, name and color or colors for our club. Here they are: The motto—We try to do our best and our faithful editor does the rest. The name—Willing Workers Own Hour. The colors—Our country's colors, red, white and blue, most pure in every hue. I am also sending you a poem I wrote not long ago. Here goes!

March

March! March!

You lusty fellow

Bring us a summer

Bright and mellow

Bring us days that

To us are so dear,

Bring us days that

Are always clear,

Bring us birds that

Sing sweet songs,

Bring us days that

Are always long,

Bring us flowers

The fairest of all,

The daisy, the rose, and

The lily so tall.

March! March!

You lusty fellow,

Your voice is rough

But your heart is mellow.

There! Now I think I have said enough,

so with love to you and the boys and

girls I am,—Dorothy Biggs, R. F. D. No.

4, Box 3, Albion, Michigan.



pounded through mail with a girl in South Dakota. But she has not answered my last letter and I did not write again.

Have you seen any robins yet Uncle Ned? I haven't, but I heard one chirping the other morning before I got up, and it certainly sounded good to hear one once more. I think it must be a sign of spring, don't you?

I had ought to be at school today. But don't you think I am making good use of my time? I am in the tenth and eleventh grades at school. We have good times at school I can tell you. We have chapel every Wednesday morning, it lasts about a half hour. We had our last basketball game last Tuesday night, for this season. I like awfully well to see a good game. Did you ever play? I wish we might have a story contest sometime, as I like to write stories. Last year in our English class we often had to write long story themes. Well I must close. I hope to see my letter in print, and I also hope I found the correct answers in the question contest. With love to all.—Lili Perkins, R4, Stanton, Michigan.

Dear Uncle Ned:—I have been a silent reader of the M. B. F. for three or four years, and have never written to you. I see quite a few of the writer's are expressing their opinions on the question, "Shall we have pins, motto, colors and contests?" My opinion is that we should vote for a motto and colors. Then we could have contests and the first time one wins he becomes a member of "The Children's Hour," and gets a pin and membership card. Then if he wins after that he can be awarded with a prize. I think it would also be nice to let the members send in poems, stories and their opinion on certain things.

I enjoy reading the M. B. F. very much

and have also enjoyed working the Cross-word Puzzles. Muriel Frey must be quite a cross-word composer. I think Uncle Ned should be president, secretary and treasurer for "The Children's Hour."

Well, I will close and leave room for the other letters and hoping we have a contest soon. Will sign, "A new writer",—Harriett Bennett, Durand, Michigan.

P. S.—I would like to hear from any of the writers.

My Dear Uncle Ned:—I received your letter the past week, and was surely glad that you were interested enough in me, as to send me such a loving letter. Yes, indeed, I always try again. I believe it is my most practiced motto.

Say I know something that would make our department more interesting. Can you and the cousins guess what it is? Oh! I'm not going to tell you until away to the end of my letter.

Uncle Ned, it surely is a shame to bother you to read my letters so often, but you know I live in the country, and this is about the only amusement I have and I'm sure there couldn't be any better. How about it "kids"?

Uncle Ned, I'm not going to school this year, so I can't tell you about my present school work. I graduated from the 8th grade last June, and I had the highest average in my school and second highest in the township. I want to take up a business course next year, so probably I'll typewrite you a letter. Last May I took first place in a Declamatory Contest, my topic being "The Open Door." I was supposed to get a gold medal but have never received it yet.

The only pet I have now is a little tabby cat named "Skeezix." Last fall I had a pet pig named "Peggy", but I sold it to Dad and cleared \$14.25. Oh! You



WHY THE PRINCE OF WALES RIDES A HORSE

DEAR EDITOR: Owing to the fact it was considerable of a blizzard today I figured maybe I could get into the court house and pay the wait tax on my so-called automobile, so I snuk in right after dinner before them that had been waiting all four noon had got back and sure enough they was only two or three ahead of me, for wick I was glad as the couple of times I was there before they wasnt even standing room.

Now my automobile aint quite a ford but when the young lady figured up the tax I wished it was, for even her being fair to middling good looking didnt ease the pain when she said \$10 and 45c, which is only about a \$1 less than it was before the gas tax was in acted. And I got to thinking that politicians are a darn site better at putting new taxes on than taking old ones off.

These same politicians bragged a lot about the way they reduced taxes just before election, but come to find out they been holding out road money from the county for roads wick the state was supposed to pay most of, and so the county commissaries had to levi more road taxes to fix up the county roads and after all the some total of taxes wick I paid was higher than ever, wick only goes to show that while figurs went lye how politicians will figur.

Now I have some cousins over in Ontario canada and they poke fun at us here in the states because we buy and pay taxes on 160 acres of land and 4 acers of it is in the road and dont do us no good. It seems up there they only own to the fence and the road is extra and belongs to the government wick is why it is called the kings high way. But that never bothered me any because 156 acers of our land is better than 160 of theirs wick is only good for peas, turnips and barley.

When I got home I hunted up my tax reseats and sorted out the state county and twp road taxes, also the covert taxes and figured up how much it would all come to in 20 yrs, and it come to me all at once that a hole lot more than 4 acers of my place would be in the road. But that may be all right, as if we keep on the way we been we will be on the road more than we are on the farm.

Wich reminds me of the saying that the only sure things are death and taxes. And the way things have been the last few years I begin to think that of the two death is easier to meet.

And speaking of them Canuck cousins, they dont get far joking me about American ways and institutions as long as we aint got any prince of Walls falling often a horse every little while. He is reported to of said that American girls is great to dance with. But being a diplomatic young chap he refrained from saying that when it came to horses he would rather fall off the English kind. I aint never really heard a horse laugh, although I have heard lots of folks mention it, but I bet if the prince of Walls had gone down into the cow country of the S. W. all the bronchos would of laughed.

But after all it probly is good practis for the prince because some day he will be king and the way the king business has been lately they have to abdicate in a hurry, and if a throne is as easy to get off as a horse he will be able to manage all right.

I see by the papers that while the prince was in this state he called on Henry Ford and probly Henry knew about his poor luck with horses, and thought he ought to have something he could ride without falling off. Anyway he took him down to the factory and they made him a brand new ford in 16 minutes wick shows they took special pains with it, and Henry had it nickel plated so he could tell wick it was after he had parked it in a crowded street. If Henry bought him a licents to go with it it was a real generous present.

But I bet you when the prince gets back to England he will go on riding a horse because they aint no wait tax on a horse and it dont have to wear a small billboard on its nose and tail with a big number to show that the licents is paid. And another thing with a horse he can just turn it loose to eat grass in the palace yard instead of driving all over London looking for a place to park. Then too a horse dont stand long enough in one place to get pinched for vilating the parking ordinance.

Besides that the prince has a lot of dignity to maintain, and falling off a horse is a deal more dignified than changing a flat tire, or getting out to crank it when the starter jams on a down town corner. And it wouldn't be becoming the dignity of a prince to run out of gas and carry some in a can from the next filling station and have to put up a \$1 deposit on the can. All of wick things has left me all run out of dignity except my whiskers. Hoping this finds you the same I am, Yours truly, HARRY VETCH.

can't beat me for scratching up nickles and pennies and making them into dollars.

I have a 22 rifle, and in the summer I shoot squirrels, chipmunks and sparrows, why last summer I was such a good shot that I killed on of mothers best laying hens. Ha! Ha! She was going to whip me but I told her I was "Too Big". I also told her I'd work hard all day. Ha! Ha! Well cousins I guess I have made you wait long enough. You know it would be more interesting if we knew what Uncle Ned looked like, so please Uncle Ned, just publish your picture once. Let's make him shall we cousins?

As to selecting a motto and the pin and colors for the contest ending February 28th I think a good motto would be, "Let's Try Again." The letters L. T. and A. could be on the pin. It could have a light blue field with a circle of gold around the edge, and the letters white. Then our pin would be gold, white and blue. Wouldn't that be nice?

Well I guess I will stop or Mr. W. B. will surely choke, and then Uncle Ned would have to build on addition on the paper, so that he can publish our letters. From your loving niece,—Kathryn Paul, (age 14), Waucesah, Mich.

Dear Uncle Ned:—Here I come again. It doesn't seem long since I wrote but it surely has been quite a while. Well as I see by the M. B. F. that the children are all suggesting a motto, name and colors I think I will begin to suggest also. I suggest blue and gold as colors for the name I think that "The Willing Workers of America" would be nice. And for a motto I think that "Work and Win" is good. Well I guess I will describe myself. I am about 5 feet 3 inches tall, have blonde hair and blue eyes, and I am 15 years old and in the 8th grade at school. Well, Uncle Ned, did you say that we were going to have another contest? I thought I heard you say so ever the wires. Ha! Ha!. I hope so because I worked all of the others. Well I hope if my letter hits the waste basket that it will hit so hard that it will topple over and spill my letter and it will crawl up on your desk and be printed through mistake Ha! Ha! That would be a good joke on Uncle Ned, wouldn't it? I think it would be nice to have a story writing contest although I can't write a story "worth reading to the dogs." But I like to read the other stories. Well, I guess I will close with a few riddles: What is it that goes along on the road with its head on the ground? What is it that goes along with its tongue hanging out? Hoping to have some of the cousins answer these I will close.—Florence Coleman, Ithaca, Michigan.

Dear Uncle Ned:—Having seen my letter in the last issue of the M. B. F. I am going to try my luck again. I've got my nerve, coming so often haven't I? I want to enter that contest too. Our motto could be "Scatter sunshine all day long." That would be quite good wouldn't it Uncle Ned? That is an original motto of my make-up. The colors of purple and gold would be real pretty, or we could have gold and old rose. I think that the clock on the heading of the Children's Hour would be a good design for the button. We could have "The Children's hour printed above the design if there was room.

The Eastern Star of Omer are going to have a play entitled "Old Maids Convention". There are about twenty persons in it so I suppose that it will be real good. We are going to give a play too. The name of it is "Safety Last".

Did you all get lots of valentines on February 14? I got about ten. How do you like to be editor of a children's page Uncle Ned? Nothing would suit me better, unless it was being president of the United States, Ha! Ha!

How many can guess this riddle? "Why was Moses the most wickedest man living? I will tell you the answer when I write again. I am enclosing a poem called "Cross-Word Puzzles." I composed it. With best wishes to all, I remain, your friend,—Lillian Kent, (age 16), Omer, Michigan.

Dear Uncle Ned:—I have never written to the Children's Hour before, but I hope that will not count against me in the present contest. It, the contest I mean, is what really induced me to write. This is my first attempt, but I hope to be very active in helping our club in the future, if the waste-paper basket keeps out of the way. Our family has not taken the paper long, but everyone started in new once, didn't they Uncle Ned?

I think the letters from the boys and girls are very interesting. I like Lillian Kent, and I am going to write to her.

As everyone else describes themselves, I suppose I'd better to it too. I am five feet two inches tall, in the tenth grade, have grayish blue eyes, and shingled, bobbed hair. I do not live on a farm, but I have had ample ways of knowing about farm life, so I am not entirely out of it all.

As for the contest, here are my suggestions, with the hope that at least one will merit a prize. For the motto—"Labor Opens the Gate". For the words on the pin—"Labor Omnia Vincet" which is Latin for Labor conquers everything. I think latin is very dignified. For the colors—blue, white and gold.

I will close now, for fear I will wear out my welcome. Ever your friend,—Marie Hanis, Mancelona, Mich.

TAKE OUT INSURANCE ON YOUR BEAN CROP

By H. R. Pettigrove

Assistant Professor of Farm Crops,
Michigan Agricultural College.

IT is interesting to know that small seeds will give just as big yields and just as large and just as good looking a product as will the large seeds. This statement is true should all conditions for development be ideal and there be no adverse conditions. The latter point is what we must consider in preparing for our harvest.

With this in mind we would advise running the beans over a fanning mill a couple of times using coarse screens thus taking out all the small, undeveloped seeds and giving a more uniform, thrifty stand in the field. However, this is not all that can be accomplished while one is working on the seed beans.

From the experience of this past season 1923-1924, every bean grower, elevator man, and probably consumer realizes the possible damage that might result from Bean Blight and Bean Anthracnose.

Should the weather have continued as favorable toward disease as it was during the early and mid part of the season the bean crop would have been a sorry looking affair. As it was many farmers were unable to harvest anything from their bean fields and many who did found blotches on their beans or a regular dark looking sore. These are manifestations in a small way of what might have been a real defeat and the wiping out of many, many more bean fields.

Since these two diseases live over winter in the beans and bean straw, let us be a little careful where the next bean field is located and don't grow them on the same field again, also begin to prepare for next year's crop by giving the seed a very severe picking and throw out every bean with any sign of discolor on it. Thus you see if you eliminate the disease from your seed it is going to be much later before it is attacked, if at all, and then, the case will not be so severe.

Should the moisture, rains and dews, be just right this year with the disease already present, it will be much worse, so if we take all precautions available we certainly can give it a hard fight. Again if we take all precautions and the weather is against the disease we have done a lot to wipe it out and thus make for a greater prospect bean crop in years to come.

Take out your insurance now by giving the seed you will plant a very severe picking, discarding all discolored beans thus throwing out all apparent disease. This must be done before spring work begins because most of us will be too busy to do it then.

So, let's take out some insurance by picking our seed beans! The dividends returned will depend in a measure upon the severity of pick.

OUR BOOK REVIEW

(Books reviewed under this heading may be secured through The Michigan Business Farmer, and will be promptly shipped by parcel post on receipt of publisher's price stated.)

The Farming Fever.—By Wheeler McMillen, Associate Editor of "Farm and Fireside". This book was written for the city man who gets the "farming fever" every spring but it is interesting reading for anyone. Published by D. Appleton and Company. Price \$1.50.

Ports and Happy Places.—By Cornelia Stratton Parker. This is a story of the experiences of an American mother and her children in Europe. Both grown-ups and children will enjoy this tale of the adventures of Mrs. Parker, her two sons and her girl in European capitals, in pensions, on railroad trains, and on other conveyances, from the primitive wagon-cart to high-powered automobiles. Bound in cloth, containing 32 full page illustrations, this book sells for \$3.00, postpaid. Published by Boni and Liveright.

Redcliff.—By Eden Phillpotts. This is an interesting tale of a Devon village, its romances and its feuds. It is full of entertaining characters, rustic philosophy, and humor. Published by The Macmillan Company, and the price is \$2.50.

Moses.—By Lawrence Langner. This, a comedy-drama in seven scenes, is a daring and entertaining interpretation of the Old Testament story, and by analogy with twentieth century civilization, bites deep into the problems of modern life. Published by Boni and Liveright and sells for \$2.00.

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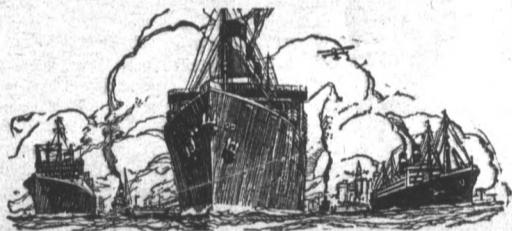
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EVERYTHING WILL COME OUT RIGHT

By Anne Campbell

Everything will come out right.
Things will change. You'll see!
Maybe I'm not happy quite,
But I'm bound to be!
Maybe all my childish dreams
Vanished out of sight.
Troubles always end, it seems.
Life turns out all right!

Everything will come out right!
When the clouds are black
Then I'm sure to see a light!
Luck is coming back.
When I'm bluest, then I know
Next day will be bright.
Sorrow always has to go.
Life turns out all right!

Everything will come out right!
Heart of mine, be gay.
Though there's not a star in sight,
Soon it will be day!
Soon the rosy light of dawn
Puts the dark to flight.
Let's be brave and carry on.
Life turns out all right!

(Copyright, 1924.)

FARM IS PLACE TO SEEK HAPPINESS

IT would seem that the subject of city versus country had been worn threadbare, but when I pick up our local paper and see the long list of auction sale notices and see the headings "having decided to quit farming" etc., I just can't resist the temptation to tell my experience as a farmer's wife in town. Most writers put great stress on the fact that we have free mail delivery, autos, radios, etc., etc. To be sure we enjoy those things but I think the things that really count most are the little things that make up our everyday life. We didn't decide to quit farming, the Doctor decided it for us after John had had a complete nervous breakdown caused from overwork. We had worked farms on shares for eight years; we started with absolutely nothing and ended up with everything in the line of stock and tools. We had worked hard, too hard, and altho we always had enough to eat and wear we thought we were "poor folks" because there never was much money in our pocketbook.

When the sale was over we were quite surprised to find we had enough to buy a small farm but as we had been ordered off the farm why we bought a Ford and moved to town. I'll have to admit that the first six months we were in town we thoroughly enjoyed our "vacation". John was not able to work so we kept that Ford busy, visited everyone we knew for miles around and it didn't matter when we went or when we got home for there were no cows or pigs, not even a chicken waiting to be fed. Then John got a "stand-up collar" job and we settled down to be "city folks". Talk about life on the farm being monotonous, there's nothing more deadly monotonous than living in town after the novelty wears off. There's more noise and excitement to be sure, but it's the same thing day after day, the year round, and it's dust and dust and more dust. There's no milk cans or cream separator to wash but the extra washing, ironing, sweeping and dusting, trying to keep the house and children clean, more than made up for it. Hang a washing out and then see clouds of dust continually rolling off the street, and in the winter it's the smoke and soot of a dozen different chimneys that will settle on it.

I seldom went any place except a hurried trip to the store and I noticed the neighbors who had children were tied down as much as I. The children left the house for school at eight fifteen a. m., were home again at eleven, left again at fifteen to one p. m. and were home at three. The children are a constant worry in town. There's nothing for them to do but play and no place to play except in the house, a small yard and the street.

Before we went to town my boy and girl were perfect chums but he soon found plenty of boys his own age to play with and they didn't want "that kid" tagging along. She found little girls to play with and they didn't want "those horrid boys" around so they drifted apart.

We lived in the better part of the town, our neighbors were neither rich or poor, just average well-to-do. Those who didn't have children kept roomers, it being a college town. They were all friendly and sociable, the women would stand out at the back door or side porch, etc., and visit with neighbors but seldom went



The Farm Home

A Department for the Women

Edited by MRS. ANNIE TAYLOR

DEAR FOLKS: There are few families that have always lived on the farm that do not, at some time, yearn to get away from what they call drudgery. They want to move to the city where there is "big pay" and little work, where life is somewhat of a vacation. I wish every member of such families could read the letter by "A Farmer's Wife" that appears on our page in this issue. Her family "got the fever" like many others and they tried the city, much to their regret, because they found the "pot of gold" they thought was at the end of the rainbow that rested in the city was really at their own doorstep, right there on the farm—and they moved back, to stay, both happier and wiser. Let us have the experiences of other readers.

*Your Friend,
Mrs. Annie Taylor*

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

away from home. The men were at work all day, came home for supper and then went off down town. They all thought I had an ideal husband as he never went anywhere after work unless he took the Ford and we all went. Where did we go? We went out to that "small farm" we bought, soon after we moved to town and just wandered around and planned what we would do "some day".

Our lives move in a circle and I found that city people live in such a small circle while country people live in a much larger circle and we get a bigger, broader, cleaner view of life. I've noticed since I've come back to the farm that our neighbors out here go more and are more active mentally than our city neighbors. The clean, wholesome, cheerful feeling shows through in spite of the constant grumbling that "there's no money in farming". While with people in town there's sort of a hopeless longing underneath the smile, good clothes and the general custom of bragging about that "good job and big pay". A lot of country people seem to feel it's their duty to grumble and appear dissatisfied with their life while city people make a constant effort to convince folks that they are happy and satisfied. But to one who understands human nature the truth is plainly visible underneath the mask.

We soon found it is almost impossible to save anything in town in spite of that "big pay", with rent, gas and electric light bills, even the daily paper costs nearly three times as much in town, being delivered by a boy instead of the mail carrier and you have to buy every mouthful you eat. I think that is what hurt me most of all. When I would come from the store or market and empty my basket on the kitchen table, think how much I paid for it and then think how much I used to go out into the garden on the farm, gather great armfuls of vegetables, select the very best for the table and throw the rest over to the pigs—well I didn't know whether to laugh or cry. I had to plan and skimp in buying and skimp in cooking in spite of John's "big pay". I couldn't afford to buy food and then throw it in the garbage pail.

After four years, the house where we lived was sold, we were asked to move and there wasn't an empty house in town. I guess we were about the happiest family in town for we had to move out to our little farm. We've no modern conveniences of any kind out here and we are not getting rich but there's no rent, gas or electric bills to pay. John will never come home at night with the terrifying news that he's "lost his job". I don't need to get my pocketbook and count the contents forty times a week and skimp, scheme and worry while planning the meals; it don't matter if there's money in the pocketbook or not, I simply run down cellar or out in the garden. No wonder our city friends make life a burden for us sometimes, they know it's true that we always have lots of good things to eat on the farm.

I have my chickens and garden to look after, something worthwhile to do. I don't need to "dress up" and walk around the block to get a little outdoor exercise. When we go away we must get back at chore time but such a noisy, happy greeting comes to us from the barnyard, we've something to live for besides a hand-to-mouth existence and coming home to a neat, stiff, silent house that seems to say "nobody cares".

When the boy comes home from school he goes out to help Dad instead of slouching down on the front steps waiting for a neighbor boy to come along and help think of something to do. The girl can practice her music in peace and quiet, there's not a half dozen youngsters out in front calling to "come on out" and best of all they are chums once more. If they are out of sight I don't need to worry, I know they are on the farm some place, they won't get run over by a street car or truck and if the baby's dress is dirty sometimes there's no one going along the sidewalk to see and criticize.

We have neighbors here who have been to town and moved back. We also have neighbors who are sick and tired of farming and want to go to town. I wish they could all go for at least two years for I know they would come back perfectly happy and satisfied and convinced that the farm is the place to live and be happy ever after.—A Farmer's Wife.

ICE CREAM

THE subject of ice cream may seem untimely to some but it is more easily made at this season and we enjoy it as well now as in summer. We have served it several times this month.

I know a number of housewives who make ice cream simply by freezing a raw mixture of eggs, sugar and milk.

Here is my way: To 1 gallon of milk use 2 eggs, 1½ cups of sugar and 6 heaping tablespoons of flour stirred to a smooth paste in part of the milk.

Beat eggs well, add sugar and beat again, pour in the milk and stir until sugar is dissolved. Put in double boiler and when boiling point is reached stir in the flour thickening and boil about 3 minutes. Cool, flavor and freeze. You will find this most creamy and delicious with no taste of flour.

I devise a double boiler by placing some old piston rings in the bottom of a large pan containing hot water. In this I set the smaller pan of milk and cover with a common kettle cover.—B. O. R.

RE-POTTING HOUSE PLANTS

HOUSE plants such as geraniums, begonias, and ferns need occasional re-potting. The top edge and bottom of the old ball of earth should be removed and fresh soil used in re-potting. Always place a piece of broken pot in the bottom to aid in drainage. Do not fill the pot to more than a quarter of an inch from the top.

OVEN TEMPERATURE IS VERY IMPORTANT

THE proper oven temperature is an important consideration in the successful preparation of food. Many a last minute failure in a carefully prepared recipe is due to too slow or too quick an oven. Oven temperatures for various foods suggested by the home economics department at South Dakota State College are as follows:

Custards and margarines require a slow oven which ranges in temperature from 250° to 350° F. Sponge cake, angel cake, bread, ginger bread, plain cake and cookies are baked in a moderate oven with a temperature of from 350° to 400° F. A hot or quick oven, 400° to 450° F., is best for parker house rolls, pop-overs, baking powder biscuits

and some quick breads. For biscuits and pastry, a very hot oven of from 450° to 550° F. is required.

PLANNING THE PLANTING

BEFORE starting the home vegetable garden, make a paper plan of the area to be used and draw it to scale. That is, make a map which will show the size and shape, by using a constant unit such as one-fourth of an inch or one-eighth of an inch to a foot. A plan with a 12-inch boundary would thus represent a garden either 48 feet long or 96. Then plan the space for each crop, and keep in mind that the general tendency is to put rows or hills too close together. Prevent this fault by allowing plenty of room. If the garden is large enough to warrant the use of a wheel-hoe or horse cultivation, it is particularly necessary to give lots of room. And don't put the tomatoes where they were last year. Also keep in mind the tendency to plant too much of a given crop. Radishes, for example, should be planted in small lots at intervals. One comparatively small row of Swiss chard is enough for any ordinary family, particularly if it is harvested on the principle of "cut and come again".

Personal Column

Keeping Sausage.—In answer to Mrs. B's inquiry as to how to keep home-made sausage, will say I have had very good success by canning. Have been able to have it the following summer at harvest and threshing time.

First form into balls or patties, as for table use or so they will slip through the mouth of a two-quart fruit-jar, easily. Put in frying pan and fry until cooked thru, pack in hot sterilized fruit cans, until full, but not crowded, add a cup of the hot drippings, seal tightly, as for fruit, and turn can upside down and let stand until thoroughly cold, so lard will harden over top of meat, then store in cellar. When wanted for use turn can upside down in basin of hot water and sausages will shake out easily. Simply reheat in frying pan and they are ready for table. I find this very easy and successful and a great lard saver.—Mrs. E. J. Osborn.

—if you are well bred!

Dance Etiquette.—Formal or informal, the first duty of a man who has taken a girl to a dance is to his hostess. When both have laid aside their wraps in their respective dressing-rooms, the hostess is greeted. Thereafter things take their natural course. If the girl's brother has taken her to the dance, he may relinquish her to some other man friend who comes up, or if she has come with a maid, she finds a girl friend or group of friends whom she joins. Brothers do not as a rule take their duties seriously enough when they bring their sisters to a dance. Sisters, on the other hand, are usually satisfied to have them neglect these duties, if some one else is willing to assume them; and any sister is usually quite willing to have her brother take in another girl as a supper-partner—a matter which should be settled early in the evening—if she herself has been suitably provided for in this respect. In general the man who takes a girl to a dance assumes certain responsibilities. He must not only dance with her himself but must introduce other partners to her. Nothing is ruder than for a man who has taken a girl to a dance, to abandon her to her own resources after a few fox-trots, and retire to the smoking-room, unless it be leaving her alone on the floor with an "Excuse me" which does not excuse, to hunt up another girl.

The Runner's Bible

With God Nothing Shall Be Impossible. Luke 1:37.

If any trouble seems fixed beyond your control, put it into God's hands. If it comes again into your mind, put it back affirming, "God will perfect that which concerneth me." Tremendous power lies back of this truth.

RECIPES

A Stomach Tickler.—I have here the most economical recipe for molasses cookies that I have yet discovered and also the one most suited to my taste. If one follows directions closely the result will be delightful to the eye and a deep satisfaction to the inner man. Ingredients are: 1 cup sugar, 2 cups molasses, 1 teaspoon salt, 1 teaspoon vanilla, or ¼ teaspoon lemon, 1 teaspoon cinnamon, 1 cup boiling hot water, 2 heaping teaspoons soda, 1 level cup lard or 1 rounding cup butter or 2½ cups sour cream. Mix together sugar, salt and spices. Add molasses and vanilla. Stir thoroughly. Now fill a cup to the brim with boiling water and hold it over the pan while putting the soda in for it will foam over the top. So will the molasses when the soda is

stirred in if one is not careful. Next stir in enough flour to make a soft dough. Have the lard softened—not warm—so that it mixes easily into the dough. After mixing well it may be necessary to add a small amount of flour but keep the dough as soft as possible to handle well. Roll, out, sprinkle with sugar and put a raisin or a nut meat in the centre of each cookie. Bake in a moderate oven.

Ginger may be used instead of spices and is usually good with lemon flavor.—B. O. R.

Braised Loin of Mutton.—3 lbs. loin mutton, 3 tablespoonfuls fat, 1 celery stalk, ½ teaspoonful whole white peppers, 1 bunch sweet herbs, salt, pepper, and red pepper to taste, 1 turnip, 1 carrot, 3 cloves, 2 sprigs parsley, 1 tablespoonful flour, 12 button mushrooms, 1 onion. Remove bone from mutton, rub in little salt, pepper and red pepper mixed together; roll up and tie in neat roll with tape; cut up celery, onion, carrot and turnip, and lay them at bottom of saucepan with herbs and parsley; lay mutton on top of these, and pour enough boiling water to three parts cover it, and simmer slowly two hours; lift mutton into roasting tin with a few tablespoonfuls of the gravy; set in hot oven until brown; strain gravy and skim off salt, melt fat in saucepan, add flour, then add gravy gradually, seasoning of salt and pepper, mushrooms, and boil eight minutes. Set mutton on hot platter with mushrooms round, and gravy strained over.

Cottage Pie.—We with others do enjoy the M. B. F. I always turn to the Farm Home department, for I like to read the ideas of others, as I live on a farm and know something of what a farmer's wife has to contend with. I will send you my recipe for cottage pie.

Take 2 cups of macaroni, cook in salt water until tender. 2 cups of cold ham or beef run through the food chopper. Put in a pudding pan a layer of macaroni then a layer of meat. Cover with some good thickened gravy, then for the top layer add a layer of fine mashed potatoes with bits of butter on top. Let brown in the oven. We think this is very good for supper.—Mrs. Floyd VanWile.

AIDS TO GOOD DRESSING

BE SURE AND SEND IN YOUR SIZE

5046-4850. A Smart Sports Suit.—A Smart Tunic Costume.—Printed voile was used for this design. Collar and vestee are of organdy. Pattern 5046 was used for the Tunic Blouse and 4850 for the Skirt. The Blouse may be finished with the sleeves short, or in wrist length. The Blouse is cut in 7 Sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. The Skirt is cut in 7 Sizes: 25, 27, 29, 31, 33, 35 and 37 inches waist measure with corresponding hip measure, 35, 37, 39, 41, 43, 45 and 47 inches. The width of the skirt at the foot is 1½ yard. To make the Costume with short sleeves for a 38 inch bust size will require 5½ yards of 40 inch material, and ½ yard for vestee and collar of contrasting material. If made with long sleeves, ¾ yard more will be required.

5048. A Practical "Two In One" Undergarment.—Cambric, batiste, crepe, satin or crepe de chine may be used for this model. The brassiere may be fastened to the chemise with snap fasteners or buttons, or it may be finished separately. This Pattern is cut in 4 Sizes: Small, 34-36; Medium, 38-40; Large, 42-44; Extra Large, 46-48 inches bust measure. A Medium size requires 2½ yards of 36 inch material. The chemise alone requires 1½ yard. For gussets of webbing ½ yard 4 inches wide or ¾ yard 6 inches wide is required.

5037. A Popular Style with New Features.—The straight line dress is still a general favorite. In the model here shown checked flannel is combined with plain flannel. One could use wool bengaline with satin, or have one material, and decorate the flounce, collar and cuffs with braiding or stitchery. The Pattern is cut in 7 Sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. If made as illustrated, for a 38 inch size 3½ yards of checked material and 1½ yard of plain material 40 inches wide is required. Width of Skirt at the foot is 1½ yard. If made on one material 4½ yards is required.

5034. A Comfortable Morning Frock for Women of Mature Figure.—Striped gingham or linen will be good for this model, with facings of contrasting material in a plain color. The sleeve may be in wrist or elbow length. The pattern is cut in 9 Sizes: 40, 42, 44, 46, 48, 50, 52, 54 and 56 inches bust measure with corresponding waist measure, 33, 35, 37, 39, 41, 43, 45, 47 and 49 inches. To make the dress as illustrated for a 44 inch bust will require 4½ yards of 36 inch striped material, and ¾ yard of plain for facings. The width at the foot is 1½ yard.



5049. A Dainty Dress for the "Little Miss"—Voile, dimity, batiste, crepe de chine and China silk are good materials for this style. The yoke and sleeve portions are made in one piece. The Pattern is cut in 4 Sizes: 2, 4, 6 and 8 years. A 6 year size requires 2½ yards of 36 inch material.

5050. A Simple Comfortable Suit for a Small Boy.—Linen, chambray, poplin, jersey cloth and flannel may be used for this style. The Pattern is cut in 3 Sizes: 2, 4 and 6 years. If made as illustrated a 4 year size requires 3 yards of 36 inch material, with ¾ yard of contrasting material for collar, cuffs, lap and facings.

5044. A New Skirt Style.—This is a four-piece model with circular flare. It is good for velvet, silk and for sports materials, also for tasha, charmeen and linen. The Pattern is cut in 7 Sizes: 25, 27, 29, 31, 33, 35 and 37 inches waist measure with corresponding hip measure, 35, 37, 39, 41, 43, 45 and 47 inches. The width at the lower edge is 2½ yards. A 29 inch size will require 2 yards of 40 inch material.

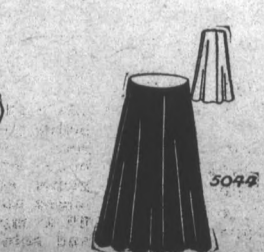
5051. A Good "Sport's Shirt" Style.—This is a good model for a Negligee or Outing Shirt. The sleeve may be in wrist length, or short, to the elbow. Flannel, broadcloth, cambric or silk could be used for this style. The Pattern is cut in 7 Sizes: 15, 15½, 16, 16½, 17, 17½ and 18 inches neck size. To make the shirt for a 15 inch size requires 3½ yards 36 inches wide.

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HOMESPUN YARN

Aunt Ada's Axioms: There's a lot in the way "thank you" is said.

An occasional well placed mirror adds space and light to living room or hall.

A pan full of dry warm oats poured into a boy's wet boots dries them out the best of any known method.

A pan of water on the radiator or register will give needed moisture in the air of the room during the winter.

The soil for most potted plants should be a good garden loam containing a little sand, a little well-rotted stable manure, a very little bone meal, and a little leaf mold.

In preparing macaroni, a hearty cold weather dish, all stickiness should be washed away by rinsing after cooking. Plenty cheese, tomato, or meat sauce adds flavor to the dish.

Wrapping each piece of homemade candy in oil paper will help to keep it from drying out when sent through the mails.

When grinding bread for poultry stuffing, a paper bag tied over the grinder helps catch the crumbs.

Carrot and orange marmalade is loaded to the gunwales with vitamins and hardly stays in glasses long enough to pay to cover with paraffin.

Ink may be removed from upholstery by covering the spot with a paste made of baking soda and water. When thoroughly dry, it should be brushed off. This may be repeated if necessary.

A few drops of commercial ammonia on a dry cloth will do much to remove "water spots" from polished floors or furniture. If the surface is waxed the spots should be rubbed with a mixture of equal parts of turpentine and linseed oil.



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Increased by years as follows;

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1916	176 25,260.42	15,337	7,740
1917	474 58,938.91	27,431	40,446
1918	721 95,120.35	32,908	69,424
1919	1,387 182,492.27	39,742	71,201
1920	2,232 280,901.29	45,067	85,961
1921	2,646 323,273.36	40,268	137,392
1922	3,326 295,147.21	38,263	226,499
1923	5,493 402,422.11	46,050	375,945

1924

9,001 Claims Paid, \$539,106.38

Total Claims Paid to date, 25,463

Total Amount of Claims Paid, \$2,203,226.48

Assets

\$565,225.96

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16 adjusted before trial 7 verdict for policy holder
7 verdict against policy holder 7 dismissed

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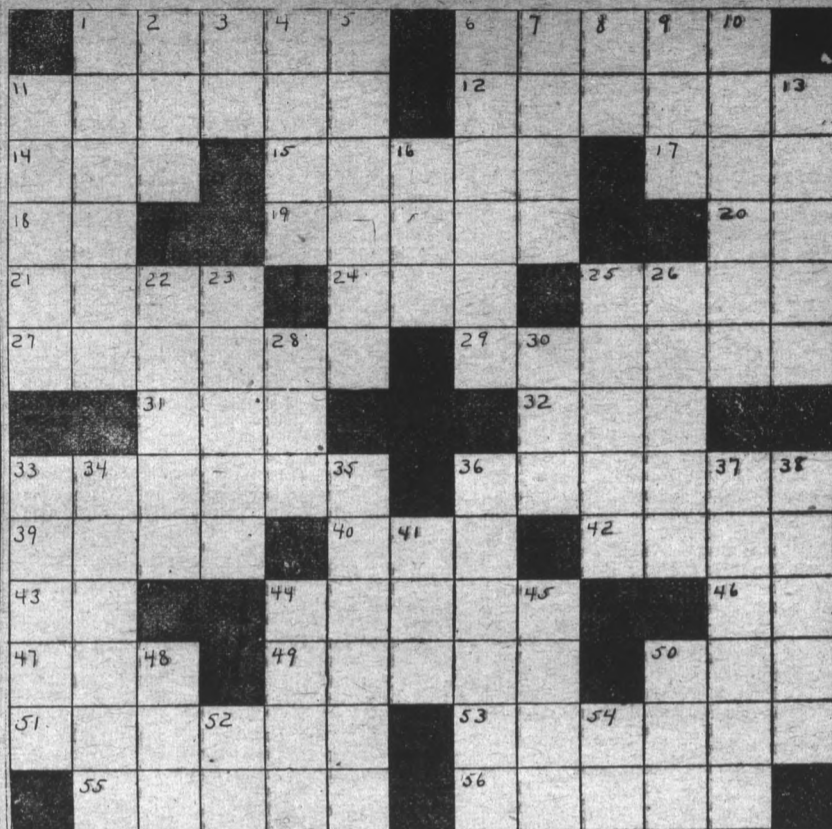
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CROSS-WORD PUZZLE NO. 11



SUGGESTIONS FOR SOLVING CROSS-WORD PUZZLES

Start out by filling in the words of which you feel reasonably sure. These will give you a clue to other words crossing them, and they in turn to still others. A letter belongs in each white space, words starting at the numbered squares and running either horizontally or vertically or both.

ACROSS

- 1 Aspect
- 6 Speedy
- 11 Famous cow which recently died
- 12 Works
- 14 A color
- 15 A piece of literature
- 17 Boy's nickname
- 18 Each (abbr.)
- 19 What the owner of a cow does twice a day
- 20 A Southern State (abbr.)
- 21 Biblical character
- 24 Organ of vision
- 25 Ascent
- 27 One who owes money
- 29 In second childhood
- 31 Consumed
- 32 Western State (abbr.)
- 33 Arid waste
- 36 To oppose force
- 39 Always
- 40 Suffix meaning "native of"
- 42 Volcano in Sicily
- 43 Parent
- 44 Plant valuable for its root
- 46 Like
- 47 Form of poetry
- 49 What brightens up the house
- 50 Skill in producing beautiful things
- 51 Tormented
- 53 Without difficulty
- 55 Small boulder
- 56 Liquid measure (pt)

DOWN

- 1 Gratify
- 2 Secreted
- 3 Resembling
- 4 What holds the apple to the branch
- 5 More easy
- 6 What snow falls in
- 7 What a good hen does
- 8 Man's name shortened
- 9 Limitless period of time
- 10 To visit foreign countries
- 11 Miserliness
- 13 To look at fixedly
- 16 Deceitful
- 22 To humble
- 23 Speak
- 25 A plant with aromatic seeds used in cordials
- 26 A friendly call
- 28 Over (post)
- 30 Female sheep
- 33 Station
- 34 Escape pursuers
- 35 Torrent of words
- 36 Puffed up horses
- 37 Tangible
- 38 Pleasantly edible
- 41 Prefix meaning three
- 44 Opposite to shut
- 45 Heavenly body
- 48 Consume
- 50 Objective
- 52 Thus
- 54 A continent (abbr.)

The answer to this puzzle will appear in the next issue. Also, we will have another puzzle.

BEAN ADVERTISING FUND

BEAN growers are keenly interested in the advertising fund to be raised jointly by growers and dealers contributing one cent for each hundred pounds of beans sold or bought. On February 25 the total contributions forwarded to F. W. Merrick, custodian of the funds, amounted to \$4,819.62. The following list made public at the recent meeting of growers in Saginaw, gives the location, name of firm, and number of months covered by the remittances from each contributing company. This list includes all who had sent in remittances previous to the first of February:

Albion, F. E. Nowlin & Co., two.
Auburn, Auburn Elev. Co., four.
Bach, Sebawaing Co-op. Ass'n., four.
Bath, S. Cushman & Son, four.
Boyne City, Boyne City Mill, two.
Cass City, Cass City Grain Co., four.
Cedar Springs, E. A. Remer & Sons, three.
Charlotte, Farmers' Elev. Co., four.
Clare, Chatterton & Son, one-half.
Corunna, Farmers' Co-op. Elev., one.
Croswell, Croswell Co-op. Elev., two.
Croswell, Michigan Bean Co., four.
Delvin, Chatterton & Son, one-half.
DeWitt, Christian Breisch & Co., four.
Eaton Rapids, Crane & Crane, one.
Eden, C. A. Davis, four.
Elsie, Elsie Elev. Co.
Evart, Evart Milling Co., three.
Farwell, Michigan Bean Co., four.
Fenton, Michigan Bean Co., four.
Fenwick, Fenwick Elev. Co., four.
Flushing, Flushing Elev. Co., one and one-half.
Fowler, Sturgis Brothers, one and one-half.
Fowlerville, E. W. Burkhart & Sons, four.
Fowlerville, Fowlerville Farmers' Co-op., two.
Gera, Charles Wolohan, one.
Gladwin, Charles Wolohan, two.
Greenleaf, Cass City Grain, three.
Harbor Beach, Huron Mill, one.
Hemlock, Charles Wolohan, three.
Henderson, Henderson Co-op. Elev. Co., four.

Holly, Holly Grain and Prod., four.
Imlay City, Lewis Steele, two.
Ithaca, Ithaca Gleaners' & Farmers' Elevator Co., one.
Kirby, Albert Todd & Co., one.
Lansing, Christian Briesch & Co., four.
Lansing, Isbell Brown Co., four.
Lennox, Lennox Elev. Co., four.
Marlette, Marlette Farmers' Co-op. Elev., one.
Marshall, Farmers' Elev. Co., two.
Midland, Orr Bean & Grain Co., four.
Midland, Chatterton & Son, one-half.
Mikado, Michigan Bean Co., four.
Millington, Sioux City Seed, two.
Mt. Pleasant, Chatterton & Son, one-half.
Morris, Morris Bean & Grain Co., two.
Owendale, Michigan Bean Co., four.
Owosso, L. C. Hall, two.
Owosso, Isbell Wholesale Store, one.
Perry, H. Starks Co., one.
Pompeii, Chatterton & Son, one-half.
Prescott, Prescott Grain Co., one.
Richville, Richard Hoerlein, three.
Sebawaing, John C. Liken & Co., four.
Shiloh, Shiloh Elev. Co., four.
Snover, Snover Co-op. Elev. Co., one.
Traverse City, Traverse City Mill, four.
Unionville, Unionville Mill Co., two.
Weidman, Holmes Milling Co., one.
Whittemore, Iscoe Elev. Co., one.
Whittemore, Whittemore Elev. Co., two.
Williamston, O. D. Corwin, four.

ANSWER TO CROSS-WORD PUZZLE NO. 10

T	R	A	M	P	E	R	R	O	R
O	R	E	A	C	T	O	R	E	
R	V	S	H	O	A	T	P	S	
S	E	T	S	O	S	I	R	E	
O	N	E	O	P	E	N	A	T	
I	M	P	L	E	M	E	N	T	
A	S	P	D	R	S	E	I	N	
P	O	T	S	A	A	R	N	O	
A	N	E	A	T	E	N	G	O	
R	R	E	V	E	R	E	S	K	
T	R	A	D	E	E	W	E	R	S

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THE BUSINESS FARMER

IF YOU WANT CHOICE POTATOES PLANT GOOD SEED

(Continued from Page 4)

Reports from over 1,000 Michigan growers bear testimony that Michigan certified seed does better the yield and quality of the potato crop. Michigan potato growers will more quickly raise the standard of potato production in this state and the quality of Michigan potatoes on the market by planting certified seed on their own farms instead of letting the bulk of it go to farms in Pennsylvania, Ohio and other states.

Approximately 50 per cent of the 1924 crop of Michigan certified seed has already been sold and the early spring demand is strong. Michigan farmers are urged to place their orders for certified seed early and not wait until planting time. Certified seed potatoes of the Russet Rural, White Rural, Green Mountain, Irish Cobbler and Early Ohio varieties may be procured from the Michigan Potato Growers' Exchange, Cadillac or from individual growers. Sources of certified seed and detailed information concerning the seed potato inspection and certification work may be had by writing to the office of Seed Inspection Service, Michigan Agricultural College, East Lansing.

ALFALFA

(Continued from Page 17)

than \$35.00 per acre, which is a rather high cost per acre. The first season after sowing I cut two loads of hay. Where I put the three tons there was a large amount of yellow plants, on the four and a half ton strip a few, and on the six ton strip a rich dark green and fully a third more growth. The next season we cut 6 loads of hay off the one and three-quarters acres and pastured 22 hogs 11 lambs and 4 calves until winter stopped it and it looked as though there was no alfalfa left. The next season it came on and we cut 7 loads of hay and pastured 28 head of hogs until sold in the late fall, also a cow and a calf. The next season we raised 56 head of hogs in the one and three-quarter acre lot and also cut 2 loads of hay and this year we had 65 head of hogs on it until after the second cutting and got two loads of hay off it besides and I guess there will be some hay there next year also. This was done on land that folks said alfalfa could not be raised upon because it was too heavy. I am going to let the reader figure out the profit, if any, on the expenditure on this piece of land. I have just scratched the surface of what might be said of alfalfa and might say something more at some other time.

INOCULATION

Is nitrogen used to inoculate oats and beans or not? I have read so much about it for inoculation of other crops. If it is used how much would you use to the bushel.—H. C., Secord, Mich.

INOCULATION consists of the addition to either the soil or the seed of a certain bacteria that will enable the plant to secure or make use of the nitrogen of the air.

Commercial cultures may be secured for leguminous crops such as alfalfa, sweet clover, beans, etc. The cereal crops such as oats, wheat and rye are not inoculated.

Material for inoculation may be secured from the Department of Bacteriology. The price is twenty-five cents a bottle and one bottle contains sufficient material to inoculate a bushel of seed. Directions for application accompany material.—C. R. Megee, Associate Professor of Farm Crops, Michigan Agricultural College.

SEEDING ALFALFA

I would like to know if you can get a good seeding of alfalfa by sowing it in oats or barley in the spring of the year? What would be the best way to get a good alfalfa seeding any way? What kind of fertilizer or lime should you use? The soil is black loam and gravel mixed.—J. L., Coldwater, Mich.

ON fairly fertile soils excellent seedings of alfalfa are frequently secured when the alfalfa seed is sown in either oats or barley.

If the soil is acid some form of ground lime should be applied. If you are in doubt concerning the acidity of your soil I would suggest that you have your County Agricultural Agent make a test for you. On

heavy soils acid phosphate frequently gives profitable returns. On light soils both phosphorus and potash usually increase production.—C. R. Megee, Associate Professor of Farm Crops, Michigan Agricultural College.

SMUT OF BARLEY

I would like some advice about black barley. The only black barley that I am able to find for seed had smut in last year and I have been wondering what the treatment for smut in barley is.—C. D., Grand Ledge, Michigan.

THE smut of barley may be successfully treated by preparing a solution containing one pint of formaldehyde to forty gallons of water. Clean the seed thoroughly with a fanning mill to remove smut kernels then sprinkle the seed, using one gallon of the above mentioned solution to one bushel of grain. Cover

for four hours and then spread out to dry.

The seed should be planted as soon as dry.—C. R. Megee, Associate Professor of Farm Crops, Michigan Agricultural College.

RAISING VETCH

I have been thinking about vetch. How much should be planted per acre and would it do well in oats? How would you prepare the ground?—J. Y., Traverse City, Mich.

SPRING sown vetch frequently makes a good hay crop and sometimes quite a profitable seed crop. However, larger yields of seed have been secured when vetch is sown during the late summer.

If you desire a hay crop, I would suggest sowing two bushels of oats and 20 pounds of vetch seed per acre. The seed bed should be prepared the same as for oats.—C. R. Megee, Associate Professor of Farm Crops, Michigan Agricultural College.

RED KIDNEY BEANS

I have been thinking of raising kidney beans next season and would like your opinion as to whether it would be a profitable crop to raise, also how far apart should they be planted and what time of the season should they be planted?—J. Y., Traverse City, Mich.

ONE would expect Red Kidney beans to give a fair profit this coming season under favorable conditions. This means planting of as clean seed as possible. (Free from disease). Give the seed a severe handpicking.

Would advise planting the beans in rows about 30 inches apart at the rate of about 80 pounds per acre. The beans should be planted about the first of June; the 25th of May to the 10th of June being within the limits for planting.—H. R. Pettigrove, Assistant Professor of Farm Crops, Michigan Agricultural College.

Announcing the Formation of the Michigan Business Farmer Piano Club

IN announcing the Michigan Business Farmer Piano Club, we believe we are offering something of real benefit to the readers of this publication. This is the first time that individuals have been given the opportunity of dealing direct with this well-known factory—the world's greatest.

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This Club, which is limited to one hundred, entitles the member to purchase a high-grade, fully guaranteed Cable-made Piano at rockbottom factory price. The saving ranges from \$90 to \$140, depending on the model selected. Either a Baby Grand, Upright or Player-Piano may be had under the Club Plan. This saving is made possible by combining the Club's entire order, although each member is responsible only for his own instrument.

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The Club requires only a small initial deposit. The instrument selected is immediately shipped to the member's home by prepaid freight for thirty days' free trial. If satisfactory, the balance is paid in convenient monthly payments to suit the purchaser. Otherwise the Piano is returned at the expense of the Factory, with no further obligation on the part of the member. The Club guarantees your absolute satisfaction.

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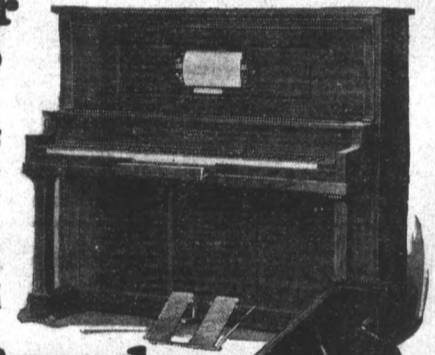
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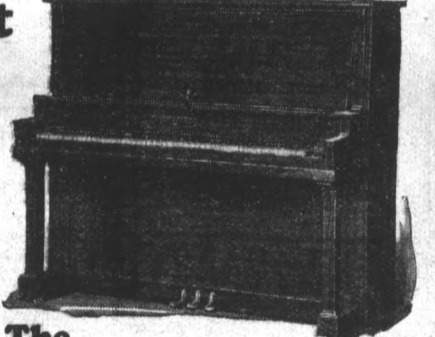
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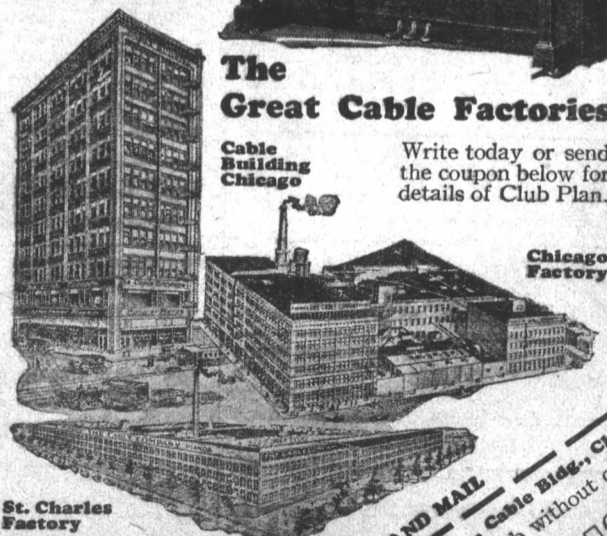


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CLAIM YOUR SALE DATE

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

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REG. JERSEYS, POBIS 99th OF H. F. AND Majesty breeding. Young stock for sale. Herd fully accredited by State and Federal Government. Write or visit for prices and description.
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Hereford Steers

60 Wt. Around 850 lbs. 66 Wt. Around 740 lbs.
80 Wt. Around 650 lbs. 46 Wt. Around 525 lbs.
50 Wt. Around 950 lbs. 58 Wt. Around 450 lbs.
Also many other bunches. Deep reds, dehorned, good stocker condition. Real quality Herefords are usually market toppers when finished. Will sell your choice from any bunch.
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WE HAVE BRED HEREFORDS SINCE 1860 Our herd bulls are International Prize Winners. Stock of all ages for sale, at Farmers prices. Write us for further information.
Feed Herefords that fatten quickly.
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Bull calves out of Dams up to 877 pounds fat. Sired by Bulls whose Dams have up to 1011 pounds fat. The homes of bulls: Shuttlewick May Rose Seguel, Jumbo of Briarbank and Holbecks Golden Knight of Nordland. From Dams producing 1011.18 fat, 772 fat and 610 fat.
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PRACTICALLY PURE GUERNSEY DAIRY calves, 7 weeks old, \$20.00 each, shipped C. O. D.
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FOR SALE—REGISTERED AYRSHIRE BULLS, fit for service. T. B. Tested. From heavy producing dams. Findlay Bros., Vassar, Michigan.

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POLLED SHORTHORNS YOUNG BULLS the most critical buyers. Write for particulars.
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HAMPSHIRE, NICE SPRING AND FALL boars. Choice bred gilts for sale. 12th year.
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THE BUSINESS FARMER
"The Farm Paper of Service"
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DAIRY and LIVESTOCK

(We invite you to contribute your experience in raising livestock to this department. Questions cheerfully answered.)

WASHTENAW COUNTY COW SUPPLIES BANQUET

FIFTY-EIGHT banqueters had a pint of milk apiece made for them in sixteen hours by Houwtje Maid Korndyke Segs No. 548,695. The occasion was the annual meeting of the Washtenaw County Holstein Ass'n held March 16th at Saline. And there was enough milk left in the kitchen to feed all the cats in town! For Houwtje Maid has averaged 97 pounds or pints of 3.95 per cent milk a day since freshening January 27th.

Her performance is not exactly a surprise to her owner, Wm. Rundel of Saline, for in Cow Testing Association work from December 8th, 1923 to November 11th, 1924, she gave 21,788 pounds of milk, testing 3.8 per cent containing therefore 842.4 pounds of fat, the equivalent of 1010.88 pounds of butter! She was milked twice a day except for the first three months.

Small wonder the program of the evening was full of pep when the participants were full of "health—vitality—nutrition!"

Pres. Wm. Austin presided over the meeting. Speeches were interspersed with vocal music by the "Men's Quartet" of Saline, piano renditions by Miss Janis Austin, songs by Harold Miller. Of especial attraction was a duet by Miss Austin and her brother George, piano and cornet.

The speakers of the evening included H. S. Osler, County Agent; Al Watt, Mgr. of the Washtenaw Fair; State Holstein Ass'n Secretary J. G. Hays, and Carlos Beckington of Ypsilanti.

Young Beckington gave a very interesting account of his trip to the 1924 National Dairy Show. His trip was financed by the Washtenaw County Holstein Ass'n as a reward for high class work in Boys' Calf Club.

Hays sketched briefly present day doings in State Holstein circles. He ended his harangue by a True Type demonstration using famous (?) knock-down portable pastelboard model "Ornery". Some cow!

The business session resulted in re-election of Pres. Wm. Austin, Vice-Pres. Glen Birg, and Sec. Walter Spalding. Frank Geiger was chosen Treasurer and for new directors W. L. Rundel, and R. B. Watrous were selected. The officers were directed to lay out a plan of activity for the next year—calf club work and showing at fair being two projects for special consideration.

Movies from the extension service of the National Holstein Association, a two reeler, called "Jonathan Barr's Conversion", capped an evening packed with pleasure.

WHY CONTINUE TESTING?

MANY farmers ask this question after they have tested their herds one year in an association. L. C. Payne completed his second year in the Macomb County Association No. 1 during September. One cow in the herd, a four year old grade Holstein, produced the first year 7502 pounds of milk and 239.8 pounds of fat. The last six weeks of the year she was well fed and put into good condition. After freshening she was fed according to production, and the second year produced 14,184 pounds of milk and 484.3 pounds of fat. The increase in the second year over the first was 6682 pounds of milk and 244.5 pounds of fat. The increased return over feed cost in the case of this one cow more than paid the testing fees the second year.—Dairy Extension Dept., Michigan Agricultural College.

SHIAWASSEE HOLSTEIN ASSOCIATION HOLDS ANNUAL

BANQUET Thursday evening, the 12th, at the Hotel Wildermuth, Owosso, ushered in the annual meeting of the Shiawassee County Holstein Association. Some forty banqueters enjoyed the following program: speech of welcome, Mayor Wright, Owosso; songs, Kline sisters; "The Michigan Holstein Today", J. G. Hays, Secretary State As-

sociation; "The Holstein Breeder Today", D. D. Aitken, Flint.

The Kline sisters, little girls, scored a big hit with their duets, especially one song about "The Holstein Cow". The talk by Mr. Aitken, Ex-President of the Holstein-Friesian Association of America, was good as usual. The company united in a vote of thanks to Mr. Aitken.

The business session following the banquet revealed the finances of the Association to be in good shape, over \$100 on hand. As a good share of this fund accrued from the County Sales Manager system of selling surplus stock of the members, it was decided to continue the system with the former manager, Fred Martin of Owosso, in charge.

Local Holstein matters occupied the attention of the breeders present, special interest being shown in cow testing association work, and showing at the Fair.

Officers elected included C. S. Baldwin, Bennington, President; Mrs. Burt Nowlin of Laingsburg, re-elected as Sec.-Treas.; J. Fred Smith of Byron, Vice-Pres. The four directors elected were Chas. Paine, Durand; Fred Martin, Owosso, Jay Bowlby, Ovid; and Dan Dutcher, Owosso.

FEEDING POTATOES TO MILK COWS

Is it all right to feed potatoes to a milk cow? If so, how many?—M. O., Grand Ledge, Michigan.

POTATOES do not contain a very large amount of digestible nutrients per one hundred pounds but they may be fed as a root crop to dairy cows. They should be put thru a root cutter to remove the danger of the cows choking. I will advise not feeding over twenty-five to thirty pounds per day as too many potatoes are liable to cause scours and butter made from the milk will be soft and salvy.—J. E. Burnett, Associate Professor of Dairy Husbandry, M. A. C.

VETERINARY DEPARTMENT

REMOVING WARTS

I have a cow that has warts on her teats. Please advise how to get rid of them.—M. L., Branch, Mich.

I THINK perhaps the best way to get rid of warts on the teats is to cut them off. The wart and skin should be properly disinfected, the cow properly restrained and the wart cut off with a pair of sharp scissors. The wound covered with a pair of sharp surgeon's scissors. The wound covered with sterile surgeon's cotton and retained in position with adhesive tape for a day or two until the wound scabs well over. It is best to remove these warts when the cow is dry. Occasionally, good reports are given from the daily application of sweet oil to the warts.—John P. Hutton, Associate Professor of Surgery and Medicine, Michigan Agricultural College.

SOW EATS PIGS

I have a young sow that had a litter of pigs three days ago and now she has commenced to kill them and eat them. What is the cause of this and what can I do to cure the habit?—M. H., Harbor Springs, Michigan.

It is claimed by some authorities that the sow eats her pigs because she is very short on protein material in her body after having produced a litter of pigs and an udder of milk. To remedy this condition a sow should receive about one quarter pound of high grade tankage once daily in her feed. To obtain best results, however, the feeding of tankage should begin early in the period of pregnancy and be continued until the sow has her pigs and are weaned.—John P. Hutton, Associate Professor of Medicine, Michigan Agricultural College.

Be sure the brood sows get enough exercise. This insures strong healthy sows and litters at farrowing time. Exercise keeps the sows in good condition and prevents disease.

Sees No Reason For Low Price of Beans

EDITOR:—We believe you are interested in some reliable information on the bean situation, considering the United States as a whole. We are accordingly sending herewith some charts which may be of interest to you. Possibly you will figure this information of sufficient value to your growers to re-produce one or more of the charts in your good publication. The information thereon can be readily checked, and we assure you it is absolutely reliable.

Chart No. 1 gives prices on various grades of beans delivered Chicago

Prices Feb. 15-1925 F. O. B. Chicago

Limas	\$14.80
Blackneys	\$10.80
Pinks	\$8.80
Small Whites	\$8.65
Large Whites	\$7.40
Bayos	\$8.30
Cranberries	\$8.80
Colorado Pintos	\$7.25
Idaho-Great Northern	\$7.30
Mich. C. H. P. Pea Beans	\$6.55

Chart No. 1

basis. You will note that although Michigan beans are the most desirable and the most readily salable of any of the varieties raised in the United States, with the possible exception of Limas, it is the cheapest bean on the list. There is no reason in the world if Michigan growers who still own beans will keep them off the market, but what they can obtain better than a \$6.00 basis for them. Reasons for this will be emphasized as the other charts are studied. It might be mentioned here, however, that there is no danger of any serious competition from any other bean. The volume of beans back in other States at present is the smallest they have had in years. They are not worrying in the least as to their ability to early clean up their remaining stocks regardless of price, and as fast as the Michigan market is advanced they will in turn advance their price to keep the differential approximately the same as indicated on the chart enclosed.

The chart No. 2 showing California stocks as of February 1st for the past five years is of much interest to us. The chart shows total tonnage of beans held back in California including all varieties, such as Lima, Pinks, Small Whites, Large Whites, Bayos, Mexican Reds, Red Kidneys, Cranberries, Blackeyes, etc. whereas on the same chart the proportion of Large and Small Whites to all varieties is shown. You will notice that the stock of Large and Small Whites on hand February 1st is the smallest they have ever had in California, whereas the stocks of all varieties of beans on hand on February 1st, 1925 is just a little more than half as many beans as were on hand February 1st, 1924. This is all the more remarkable when you consider that on February 1st, 1924 they had the smallest stock of beans in California that they have had since before the war. All of the white beans in California will be readily consumed within the borders of the Pacific coast states. The stocks of white beans in California could possibly be better expressed by this statement, which is absolutely true. Namely—that during any two weeks of the crop marketing season so far there have been more Michigan beans shipped

than the entire crop of white beans left in California at the present time.

One of our men is on his way back from Idaho at the present time. He advises that there are not to exceed 100 cars of Idaho beans left. Inasmuch as their crop out there was 1200 to 1500 cars they have less than 10 per cent of their crop left and six months to go before new crop is harvested.

In Colorado and New Mexico there are less than 50 per cent as many Pinto beans on hand at the present time as there were a year ago now.

New York state crop of peabeans is virtually cleaned up. New York state bean dealers being unable to get sufficient tonnage in their own state to take care of their trade are now buyers of Michigan beans.

Chart No. 3 shows our average percentage business for the past five years. The top line represents 100 per cent. We start our crop year with September 1st, as that is the closest even month date we can arrive at for the starting of the movement of new beans. You will note that 60.4 per cent of the business for the year is done between September 1st and March 1st. In other words, there should be left in the state on March 1st practically 40 per cent of the total crop raised to take care of the demand from March 1st to September 1st. From September 1st to March 1st this year, according to railroad reports, there have been shipped from Michigan practically 6,000 cars. There should have been left on March 1st in order to take care of the demand until new crop can be harvested, 4,000 cars in Michigan. The total crop, however, was only approximately 8,000 cars. Accordingly there cannot help but be a big shortage of Michigan beans before new crop is harvested, particularly when you consider that this year the other states from which the trade get a certain proportion of their supply of beans, are holding just about half as many beans as

California Bean Stocks February 1st

	Large-Small Whites	Other Varieties
1921	100	100
1922	100	100
1923	100	100
1924	100	100
1925	100	100

Chart No. 2

they did a year ago now. Railroad reports show that between March 1st and September 1st last year there were better than 4,000 cars of beans shipped from Michigan. At the outside, including seed stock and everything, there cannot be left in Michigan at the present time more than 2,500 cars. Accordingly any way you look at the situation the statistics point to a much stronger market later on.

There is no reason that we can possibly figure out why Michigan beans should not be selling at least as high as beans raised in other states, this year in particular when Michigan unquestionably controls the stock of beans in the United States, why the farmers should not get \$6.00 or better for their beans.—Chatterton and Son.

Milking machines will save labor if a sufficient number of cows are being milked. The herd should number at least 15 cows before a milker is a time saving investment. A mechanical milker will not injure the udder or the cow or cause her to dry up if reasonable care is observed in its operation. Stripping after the machine is necessary to avoid drying up of the cow. Do not leave the milker on the cow too long after practically all the milk is drawn. This may injure the cow's udder.

Sales of Pea Beans, Five Year Average, 1919 to 1924

	September 1st to January 1st	January	February	March	April	May	June	July-August
	42.1%	10.1%	8.2%	7.9%	6.8%	7.3%	6.4%	11.5%
To January 1st	42.1%							
To February 1st	52.2%							
To March 1st	60.4%							
To April 1st	68.3%							
To May 1st	74.8%							
To June 1st	82.1%							
To July 1st	88.5%							

Chart No. 3



Dr. Hess Stock Tonic

The Springtime Conditioner

SPRINGTIME is the time that farm stock are out of fix. A long winter diet on dry feed—woody timothy hay, corn fodder and other roughage—tells in ill condition; blood out of order and worm pestilence.

Give their systems a spring house-cleaning with a course of Dr. Hess Stock Tonic.

It will put your cows in trim for summer milking. Excellent for cows at calving. Feed it before freshing. It will relieve your brood sows of constipation, all hogs of worms. It will put your young stock, calves and shoats, in fine condition for summer gains.

Fit your team for spring work with a course of Dr. Hess Stock Tonic. It gives them strength and endurance. You can feel it on the lines.

Excellent for mares in foal, and ewes at lambing time.

25-lb. pail, \$2.25; 100-lb. drum, \$8.00
(Except in the far West, South and Canada)

Honest Goods—Honest Price. Why Pay More?



Buy it by the pail

REMEMBER—When you buy any Dr. Hess product, our responsibility does not end until you are satisfied that your investment is a profitable one. Otherwise, return the empty container to your dealer and get your money back.

DR. HESS & CLARK, Inc., Ashland, Ohio

Dr. Hess Dip and Disinfectant

For Sheep Ticks - for Hog Lice - for Health

Brings Any Size

\$3 down on New, Low, Easy Pay Plan

Full Year to Pay

30 Days Trial

Test it any way you please on our money-back offer

American SEPARATOR

built and guaranteed by the oldest American manufacturer making cream separators only. Proved the most profitable by experience of many thousands of enthusiastic owners. Skims thoroughly. Unmatched for easy turning. Easily cleaned. Flushes completely. Saves cream. Made in capacities from 850 pounds down to one cow size.

Allowance Made on Old Separators of Any Make.

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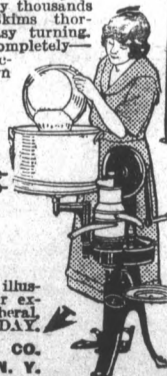
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TO AID IN KEEPING
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Kills Lice, Mites and Fleas.
For Scratches, Wounds and common skin troubles.

THE FOLLOWING BOOKLETS ARE FREE:

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WARNING!

Stallion Purchasers

Be sure that the stallion you are buying has a clean Michigan State Enrollment.

Purchase subject to approval for soundness and registry papers, by the Department of Agriculture, Lansing, Michigan.

MICHIGAN HORSE BREEDERS' ASSOCIATION.
R. S. Hudson, Secretary, East Lansing, Mich.

WHEN WRITING TO
ADVERTISERS PLEASE MENTION
THE BUSINESS FARMER

HORSES

FOR SALE THE GREY PERCHERON
Imported stallion "Juriste", two hundred and fifty dollars (it will exchange for a work team).
R. G. PALMER, Belding, Michigan.

FOR SALE—ONE THREE-YEAR-OLD BELGIAN stallion and one four-year-old Percheron stallion. Both horses in good condition.
R. G. PALMER, Belding, Michigan.

LAKEVIEW POULTRY FARM

Tancred Strain
WHITE LEGHORNS
Park's BARRED ROCKS
Single Comb & Rose Comb
RHODE ISLAND REDS

SUPERIOR CHICKS
IN ALL BREEDS

Has Ordered From Many and Finds Lakeview's Best

Mrs. Robert Snodden, of Filion, Mich., writes: "The 150 Rhode Island Reds and Barred Rock chicks I received June 1, 1924, were the finest looking chicks I ever saw. I raised 145 to maturity. I have ordered chicks from many poultry farms, and never have had the satisfaction I have had with the Lakeview Poultry Farm."

That is a comparative test. The reasons for the results are manifest. Highest grade foundation stock. Most careful breeding methods. Experience in hatching, which enables us to avoid mistakes and be sure of vigorous as well as egg-bred chicks. No matter how high the breeding, a chick will not grow into a profitable hen unless it is properly hatched and is strong.

Our catalog tells many useful things regarding poultry. It's free.

LAKEVIEW POULTRY FARM,
R. R. 8, Box 3, Holland, Mich.

BABY CHICKS From World's Greatest Layers Low Prices—Catalog Free

Eckhard and Tom Barron W. Leghorns—Heavy Type Brown Leghorns—R. C. and S. C. Rhode Island Reds—Rhode Island Whites—Sheppard's Anconas—Park's Barred Rocks

If you want pure bred chicks that are bred right, hatched right, and shipped right, that grow and will make you a profit, get our new low prices and free catalog before you buy.

Flocks are carefully culled and developed on free range. All chicks are hand picked and inspected, no cripples or weaklings. Every one strong and healthy.

100% Live Delivery—Postage Paid

Satisfaction Guaranteed. Write Now. White Leghorn and Barred Rock pullets after May 1, at low prices.

Knoll's Hatchery, R. R. 12, Box B., Holland, Mich.



WASHTENAW Baby Chicks

100 Per Cent Live Delivery

Chicks that are lively and healthy from pure-bred carefully selected stock. One-fifth down books. Order. Good poultry judges say our flocks are unusually good. Order today.

Prices on (prepaid)	25	50	100	500	1000
Bd. Rocks,	\$4.25	\$8.00	\$15.00	\$72.00	\$140.00
R. I. Reds,	4.25	8.00	15.00	72.00	140.00
Wh. Rocks,	4.50	8.50	16.00	77.00	150.00
Wh. Wyandottes,	4.50	8.50	16.00	77.00	150.00
Wh. & Br. Leghorns,	3.75	7.00	13.00	62.00	120.00

Pure Bred—Carefully Selected
Last year we were not able to supply the demand. Order early this year.
Ref: Farmer's & Mechanic's Bank, this city.
WASHTENAW HATCHERY,
Route 5,
Ann Arbor, Michigan.

WINSTROM BIG HUSKY CHICKS

Pure bred, high quality, heavy laying, tested flocks, Great Winter Layers. 100% Live Delivery Guaranteed.

Postpaid prices	25	50	100	500	1000
S. C. White & Brown Leghorns,	\$3.75	\$7.25	\$14.00	\$67.50	\$130.00
Barred Rocks, R. I. Reds,	4.50	8.50	16.00	77.50	150.00
Anconas, (Extra Good Sheppard),	4.00	7.75	15.00	72.50	140.00
Mixed Chicks,	2.75	5.50	10.00	50.00	100.00

Extra Selected Stock, \$2.00 per 100 higher. Each order packed personally. Bank reference. There is no risk. Free Circular.

WINSTROM POULTRY FARM, Box C-5, Zeeland Michigan

STAR QUALITY CHICKS

It pays to buy the best and Star Quality can't be beat. Special high grade, selected carefully, bred from S. C. White Leghorn flocks. Mated to Pedigreed Tancred Males bred from hens with records up to 295 eggs per year. Only strong vigorous fowls are mated to produce our Chicks. Write at once for catalog and price detail.

STAR HATCHERY, L. Tinkelt, Box T, Holland, Michigan.

FARROW CHIX FOR SUCCESS

Profit Makers—Early Layers
Leghorns, Anconas, Rocks, Reds, Wyandottes, Orpingtons, Minorcas. Lowest prices. Catalog free. Address nearest office.

D. T. FARROW CHICKERIES
Peoria, Ill., Des Moines, Ia., Milwaukee, Wis., Indianapolis, Ind.

S. C. BUFF LEGHORN CHICKS FROM CAREFULLY CULLED STOCK ON FREE RANGE.
J. W. WEBSTER, Bath, Michigan.

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"The Farm Paper of Service"
TELL YOUR FRIENDS ABOUT IT!

FREE TO ASTHMA SUFFERERS

Free Trial of a Method That Anyone Can Use Without Discomfort or Loss of Time.

We have a method for the control of Asthma, and we want you to try it at our expense. No matter whether your case is of long standing or recent development, whether it is present as occasional or chronic Asthma, you should send for a free trial of our method. No matter in what climate you live, no matter what your age or occupation, if you are troubled with asthma, our method should relieve you promptly.

We especially want to send it to those apparently hopeless cases, where all forms of inhalers, douches, opium preparations, fumes, "patent smokes," etc., have failed. We want to show everyone at our expense, that our method is designed to end all difficult breathing, all wheezing, and all those terrible paroxysms.

This free offer is too important to neglect a single day. Write now and begin the method at once. Send no money. Simply mail coupon below. Do it Today—you do not even pay postage.

FREE TRIAL COUPON
FRONTIER ASTHMA CO., Room 396C
Niagara and Hudson Sts., Buffalo, N.Y.
Send free trial of your method to:

Profit Producing Baby Chicks

\$502 Net PROFIT In 3 Months From 250 B. F. White Leghorn Pullets

That's what Mr. I Wade of Fenville, Mich., made in three months time from pullets raised from chicks he bought of us last spring. You can make big money with our profit making chicks.

Chicks Chicks
Our stock is strong, healthy, free range, Tancred and Tom Barron White Leghorns, S. C. Rhode Island Reds, Parks' Barred Rocks, the best blood lines in the country. 100 per cent live delivery guaranteed, postpaid. Big, fine catalog free.

8 to 10 Weeks Old Pullets
We specialize in 8 to 10 weeks old pullets. Extra choice ones at prices that please. Write today.

BRUMMER-FREDERICKSON
POULTRY FARM
Box 26 Holland, Michigan

CHICKS THAT LIVE

From sturdy, healthy free-range flocks. Fluffy, lively youngsters that should grow fast, and get on an all-year-round egg laying basis. From carefully mated high egg-producing strains, tested and culled to insure exceptional vigor and laying ability. This stock and our scientific hatchery produces chicks that live, grow fast, lay early. Selected for uniform size and color so they will grow into beautiful flocks of which you'll be proud. Place your order before our output is taken by others. Order now for present or future delivery. Leading varieties. Live delivery guaranteed. Postpaid. Write for new chick booklet. H. L. CARL, Box 101, Montgomery, Mich.

BABY CHICKS

We have just the chicks you have been looking for, the large, strong, vigorous kind from free range flocks that have been culled for heavy egg production. English White Leghorns, Anconas, Rocks, Meda. Shipped prepaid parcel post. Safe arrival guaranteed. Ask about 8 wk. pullets. Catalog free. Gift Edge Poultry Ranch of Zeeland, Michigan.

MUSINGS OF A PLAIN FARMER

A ROSE late! Cedared the fire and off to the stable at general routine, in a legathy from sitting late at a neighbor's for a radio concert.

Breakfast of a pullet's egg, coffee and a roll. Muddled my brain for a spell trying to figure a way to clean stables easily. Gave up in despair and used the old form, cussing the while.

Commanded myself to veal all calves this year and not be pestered with stubborn yearlings running past open doors.

In to lunch of steaming hot soup, consuming three deep bowls. Purchased the daily paper a bit, and saw where some bad men pistoled a banker for his gold. Marveled at the devilishness going on in the world.

Sauntered forth across lots for a chat with my in-laws, and we jibber jabbered until the hour of eight.

Returned home to find the chores finished. My wife and oldest daughter in a surly mood. Attempted to act coltish, doing a step dance on the kitchen floor. But fell ungracefully, nearly wrenching my hip. Arose expecting they would laugh uproariously, but they only responded with a smothered cackle.

Decided not to try any more antics, so sat in my favorite rocker and listened with great pride while my daughters played a melody on their violins.

Retired early.—A. P. Ballard, Huron County.

PRUNING TIME FOR ORCHARD IS HERE

PRUNING time for the farm orchard is here. Warm days during early spring can be spent in renovating the fruit trees.

Moderate pruning every year encourages annual fruiting and is much better for the tree than heavy pruning every three or four years. The work should not be delayed until growth starts.

Trees which have not been pruned regularly and have grown too bushy and dense should receive a rather heavy thinning of medium sized branches in the outer portions of the tree. If possible, avoid removing large limbs because this leaves the tree thin in places and too dense elsewhere. All dead, diseased, broken, injured, crossing and rubbing limbs should be removed as far as possible. When young trees have been properly pruned until they reach bearing age, only moderate pruning of small branches is required to keep the tree properly thinned. Sunlight will then be admitted to the central portion of the tree.

In pruning of young trees specialists recommend keeping the head low. They also urge a pruning system which will avoid having two branches leave the trunk at the same point. Four or five main branches should be saved, and as far as possible so selected that they will be evenly distributed around the tree as well as up and down the main trunk.

In all your pruning work use sharp efficient pruning tools. Make all cuts clean and close and wax all wounds that are over an inch in diameter.

WHY NOT A MILKER?
No use wondering what a milker of the proper size to fit your own needs will cost installed in your barns. On the back cover of this issue, the DeLaval Separator Company, one of the oldest and best known manufacturers of dairy equipment in the world, are offering an engineering service absolutely free which you dairy-men who are milking ten or more cows ought to accept.

The power milker has come to stay. There are a great many dairy farms in Michigan equipped with power milkers now and there will be a good many more before the end of this very year. It is surprising to notice that those milk producers who are using power milkers are usually the same ones who are complaining least about market conditions.

The owner of a good milking outfit can laugh when the hired hand walks out. He can milk and strip twenty to twenty-five cows in an hour and then spend the evening at his radio. The best part of it is that the DeLaval people have just reduced their prices on milkers and offer easy terms of purchase which are adjustable to any farmer's purse. We urge you to fill out the coupon on the back cover and get the free engineering service and we guarantee you that it will not obligate you in any way whatsoever to buy a DeLaval now or at any other time.—(Adv.)

White Diarrhea

Remarkable Experience of Mrs. C. M. Bradshaw in Preventing White Diarrhea

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

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

Cause of White Diarrhea

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

Never Lost a Single Chick

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

Never Lost One After First Dose

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

You Run No Risk

We will send WALKO White Diarrhea Remedy entirely at our risk—postage prepaid—so you can see for yourself what a wonder-working remedy it is for White Diarrhea in baby chicks. So you can prove—as thousands have proven—that it will stop your losses and double, treble, even quadruple your profits. Send 50c for package of WALKO (or \$1.00 for extra large box)—give it in all drinking water and watch results. You'll find you won't lost one chick where you lost dozens before. It's a positive fact. You run no risk. We guarantee to refund your money promptly if you don't find it the greatest little chick saver you ever used. The Leavitt & Johnson National Bank, the oldest and strongest bank in Waterloo, Iowa, stand back of our guarantee.

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

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

Name
Town
State R. F. D.

Mark (X) in square indicating size package wanted. Large package contains about two and one-third times as much as small.—(Adv.)

Some Questions About Sugar Beet Contract

DEAR EDITOR: Should the farmer with beet land go heavy to beets this year? Is there assurance that the extremely high extraction of sugar per ton of beets (301 lbs.) will be repeated next year? Does the farmer get a just return per acre for his beets when the tonnage runs low and the extraction high on the present 45-55 contract? Can the acreage planted to sugar beets in the United States be increased unless the farmers get contracts which will give them full benefit of a tariff policy? If a 45-55 contract (or others of similar nature) show exorbitant profits to the beet manufacturer under the present tariff would it not be a logical solution to give the farmer a 55-45 contract and see if the tariff commission would recommend a reduction of tariff on sugar? Would the farmer have received this year an unreasonable price per acre for his beets had he had a 55-45 contract? Assuming the tonnage to have been 6, which I believe is a fair average per acre planted (Michigan crop reports show 7.1 tons per acre harvested) last year and had we a 55-45 contract we would have received a gross return of \$41.56 per acre less \$10.00 per acre for hauling which would make \$31.56 per acre for land and labor in raising the crop, or a little more than the beet worker received last year per acre on the contract labor.

On the present 45-55 contract did the farmer receive as much per acre for his beets for use of land cultivating, pulling and hauling as the beet worker received for about a month's work this year? If the extraction should be as low as 223 lbs. which is past history, and should sugar be \$6.50 N. Y. or around present prices, making the price of beets \$6.50, can the growers of beets assure such chance buying all his labor and machinery on a high tariff market? Is the farmer justified in being in favor of any tariff policy that does not take into consideration the fact as to whether or not the farmer is receiving his just share of the rewards of a tariff. Of what account is it to have a tariff commission to find that the tariff on sugar should be reduced considering the cost of manufacturing sugar when they do not take into consideration the cost of growing the beets or what kind of contract the grower is getting? Are the parties receiving tariff benefits to which they are entitled or if the growers were getting a better contract would the present tariff or even more be out of line in building up a policy of making ourselves self-supporting in the sugar we raise in the United States?

It may be well to mention in calling attention to the high cost of farming that a few years ago the sugar factories furnished beet drills to the farmer for twenty-five cents per acre. This was raised to fifty cents per acre last year and it is understood that next year the farmer is to buy and furnish his own drills. If the farmer cannot get as much or more per acre net out of a crop of beets as he can out of a crop of wheat or other crops which he is raising at cost and less on account of not being able to receive tariff benefits on account of overproduction in the U. S., why should he be requested to ask that the present tariff on sugar be maintained for the benefit of a manufacturing element that aims to pay the farmer only the bare cost of the raw beets and do not give contracts which give the farmer at least 50 per cent of the tariff benefits?

Why is it that the Michigan farm

organizations pass this important matter by so indifferently? Can this condition exist without the 175,000 Michigan acres usually planted to beets being planted to another crop so adapted to beet ground, which generally is white beans, and thereby undo the benefits of a tariff on this commodity by creating an overproduction? Cannot the farm organizations get farther with farmers' problems by adopting a policy of regulating production instead of endeavoring to market a surplus at a high price? Last year after the beet farmer has deducted his contract labor \$23.00 per acre and his extra hauling costs \$10.00 from his beet check he has approximately \$15.00 per acre on the average for his land, plowing, fitting, planting, cultivating and pulling—a sum not very attractive considering the fertility beets take from the soil. According to the best figures obtainable, it cost last year 2½¢ per pound to extract a pound of sugar—this being true an average acre of 5 tons of beets would cost \$37.50, leaving a net profit of \$15.60 on an average acre of beets of 5 tons. Why cannot this profit be divided with the farmer thereby placing farming in Michigan on a more staple basis and also place the President and the tariff commission in a better light with the Republican party.

At the present time is not the beet farmer of Michigan justified in sticking out for at least a 50-50 contract or no beets?

If the western factories give 50-50 contracts why do we not get them here in Michigan? Is not this after all the "High Cost of Ignorance"? Why does not the Michigan Sugar Beet Growers' Association continue to operate and function? Why do the important offices of this organization pass to the heads of other organizations who never grow beets and according to their statements in the press are as ignorant of the problem as would be possible for a man to be?—C. E. Ackerman, Durand, Mich.

OCEANA COUNTY TO GET DAIRY-ALFALFA CAMPAIGN

PLANS are being completed by Mr. Carl Hemstreet, county agricultural agent of Oceana county, to conduct an intensive five day Dairy-Alfalfa Campaign, April 13-17. A total of thirty barn meetings will be held thus reaching practically every farmer in the county.

There will be two teams used, each consisting of a Dairy Specialists and an Alfalfa Specialist from the Extension Department of the Michigan Agricultural College. Each team will hold three meetings per day and will be able to consider the special problems of every farmer present.

The increasing difficulty of making dairy profits without high protein hay and the shortage of alfalfa in this county is the cause of much interest in the coming campaign.

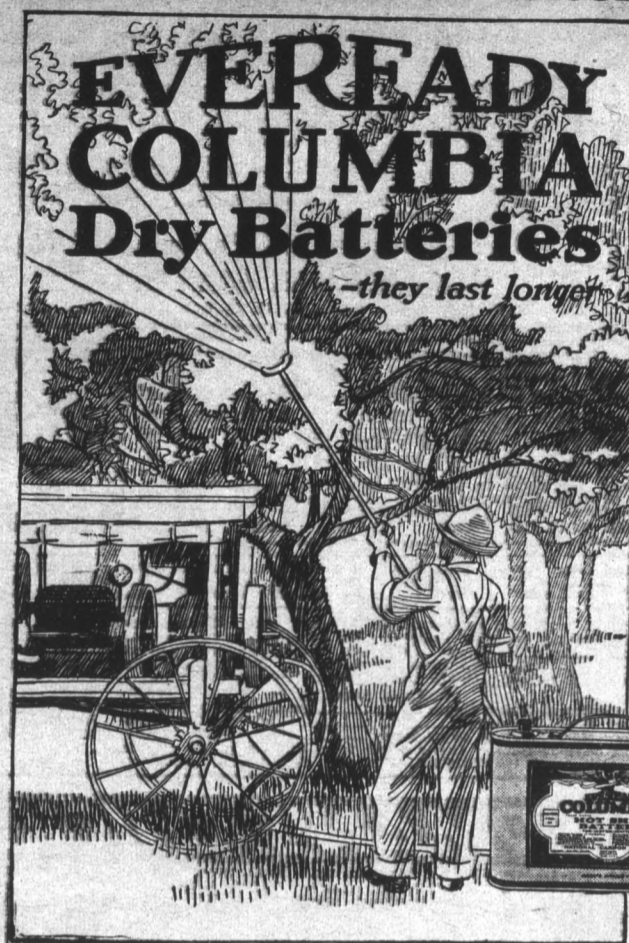
If you intend to go to work, there is no better place to start than right where you are.—Abraham Lincoln.

All good saw handles are made of apple wood, because it does not break if a saw is dropped.

A clean, disinfected poultry house gives the laying hens a chance to do their share.

Plenty of bedding for the cows does three things—keeps them clearer, provides more warmth, and saves more of the liquid parts of the manure.

Power Without Interruption



Popular uses include—

- gas engine
- ignition
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- running toys
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Eveready Columbia Hot Shot Batteries contain 4, 5 or 6 cells in a neat, water-proof steel case.

YOUR GAS ENGINE will putt-putt-putt away, with never a skip or miss, if you hitch it to a high-power Eveready Columbia Hot Shot. Explosions are quicker and more vigorous when started by these batteries. Flywheels sing with a constant speed, and the job gets done in jig time.

FOR YOUR DRY CELL RADIO TUBES, use the powerful, long-lasting Eveready Columbia Ignitor. This is the battery that's as good for long hours of listening as the Hot Shot is for long hours of working. For all uses, Eveready Columbias are the greatest batteries there are!

Manufactured and guaranteed by

NATIONAL CARBON COMPANY, INC.

New York

San Francisco

Canadian National Carbon Co., Limited, Toronto, Ontario

Fahnestock spring clip binding posts on the ignitor at no extra cost to you.

Ask for them by name at

electrical hardware radio automobile marine supply implement and general stores

KARSTEN'S QUALITY

BABY CHICKS

FROM STOCK—THAT IS BRED WITH THE LAYING HABIT

Hollywood and Barron English Single Comb White Leghorns STRAIN MATINGS 250-300 EGG-BRED LINE

Careful breeding, type-testing and trap-nesting has produced our world-famous Karsten's Quality Laying Hen—A Utility Bird With Standard Requirements

Our Leghorns are long, deep-bodied, wedge-shaped birds, with wide backs and low spread tails, big lopped combs and alert eyes. Birds that lay those large white eggs that bring the high prices on the New York Market.

SEND FOR FREE CATALOG it describes our wonderful breeding establishments, it tells what and how to feed your chickens for profit, it will show you how you, too, can double your poultry profits.

KARSTEN'S FARM

BOX X

ZEELAND, MICHIGAN.



Pure Bred Baby Chicks

\$8.00 per 100 and Up

We are now booking orders for MAY and JUNE CHICKS, from our HIGH-GRADE WHITE LEGHORNS and ANCONAS. These chicks are from EXTRA SELECTED hens mated to males from TANCRED and SHEPPARD. We insure OUR CHICKS for one week. Write for our catalog and prices before you buy, we can save you money.

W. D. WYNGARDEN

R. 4—Box 5,

Zeeland, Michigan.



PROGRESSIVE CHICKS

Sturdy, strong, vigorous chicks from good, pure bred, bred-to-lay flocks on free range. 100% Live Delivery Guaranteed.

	Postpaid prices on 50	100	500
Buff and Brown Leghorns, Anconas	\$6.50	\$12.00	\$60.00
Barron Strain White Leghorns, (Select)	7.00	14.00	65.00
Barred Rocks, S. C. Rhode Island Reds	8.00	15.00	70.00
Mixed Chicks for broilers	5.25	10.00	45.00

Reference: Zeeland State Bank. Order right from this ad in full confidence of getting what you want. Free Circular. PROGRESSIVE POULTRY FARMS, Box F, Zeeland, Michigan.

High Grade Chicks

Produced from splendid flocks of the best strains. 100% Live Delivery Guaranteed. Bred-to-lay and carefully inspected and selected.

	Postpaid prices on 50	100	500	1000
White and Brown Leghorns, Anconas	\$7.00	\$13.00	\$62.00	\$120.00
Barred Rocks, R. I. Reds	8.00	15.00	72.00	140.00
White Rocks & Wyandottes, Black Minorcas	8.50	16.00	77.00	150.00
White & Buff Orpingtons, Buff Wyandottes	9.00	17.00	82.00	160.00

Mixed Chicks, 100, \$12.25 deposit books your order for future delivery. Reference: First State and Savings Bank.

THE HOWELL HATCHERY, Dept. 58, Howell, Michigan

CHICKS-HATCHING EGGS-PULLETS

Barron Strain S. C. White Leghorns—We furnish CHICKS and PULLETS from BLOOD TESTED 2 year old HENS at prices you would pay for ordinary hatchery stock. We positively guarantee to please you. Catalog free. PEERLESS POULTRY FARMS, Box 3, Zeeland, Michigan.



This flock of Bronze turkeys belongs to Elmer Arnold, of Central Lake, Mich.



English Type White Leghorns

The Deep Bodied Hens With the Large Combs That Produce the Large White Eggs.

The chicks we offer you this year are from extra selected hens, sired by males out of hens that laid 270 eggs in 365 days, these males being sired by a male from a 300-egg hen. The price asked for them is very reasonable. They will bring you bigger profits and absolute satisfaction.

You will be benefitted by our 15 years experience hatching and shipping chicks. Our stock grows up uniform in size, has great vitality and brings big returns in our customers' hands. Let us mail you our catalog with prices. 100% live arrival guaranteed.

Nine Weeks Old Pullets in May
WOLVERINE HATCHERY
H. P. WIERSMA, Prop., R. R. 2, Box 98, Zeeland, Mich.

HOLLAND HATCHERY

CHICKS from heavy winter laying stock produced by MICHIGAN'S OLD RELIABLE HATCHERY. Pioneer Breeders and Hatchers, operating the best Hatchery in the State. Pure bred TOM BARRON and AMERICAN WHITE LEGHORNS, Anconas, Barred Rocks, Rhode Island Reds. Strong, well hatched Chicks from Hogenized, free range stock. By insured Parcel Post Prepaid to your door. 100% Live Delivery Guaranteed. 17 years experience in the business and giving absolute satisfaction to thousands. Get valuable Illustrated Catalog free and lowest prices before placing your order elsewhere. VAN APPELDORN BROS.

HOLLAND HATCHERY AND POULTRY FARM, R-7-B Holland, Michigan

YEARS OF EXPERIENCE

Our 15 years of work and experience in breeding and hatching Chicks qualifies us as DEAN in the Poultry Industry College. We own and operate a real Poultry Farm of 20 acres, not merely a Hatchery. Our Free Catalog will give you an excellent idea of this Farm—Get it now. We have specialized in White Leghorns for many years. Chicks at following prices. 100% Live Delivery Guaranteed.

	25	50	100	500	1000
S. C. White Leghorns, Extra Quality	\$4.00	\$7.50	\$14.00	\$67.50	\$130.00
Barred Rocks, Red, Anconas	4.25	8.00	15.00	72.00	140.00
White & Buff Rocks, White Wyandottes	5.00	9.00	17.00	80.00	155.00

Ref. Royal Oak Savings Bank. Order direct from this ad in full confidence.
DEAN FARM AND HATCHERY, Box 22, Birmingham, Michigan

HUNDERMAN'S CHICKS

FIRST CLASS CHICKS \$10 per 100 and up. From pure bred flocks on free range, culled by an expert. 100% Live Delivery Guaranteed.

	25	50	100	500	1000
English S. C. White Leghorns	\$3.50	\$6.50	\$12.00	\$57.50	\$115.00
S. C. Brown Leghorns	3.50	6.50	12.00	57.50	115.00
Barred Rocks, S. and R. C. Reds	4.25	8.00	15.00	72.50	140.00

Mixed assorted, 25, \$3.00; 50, \$5.50; 100, \$10.00. Ref. State Commercial Savings Bank. You take no chances. Hatched in Blue Hen Incubators. 10% down books your order. Free Catalog.
HUNDERMAN BROS., Box 37, Zeeland, Michigan.



I WANT A JOB

on your place this season. I am a pure bred chick of known ancestry and bred to lay. Catalog. Rocks, Reds, Leghorns.

MACOMB POULTRY FARM & HATCHERY,
Halfway, Michigan.

CHIX OF QUALITY

Hatched in Wishbone Incubators.

S. C. W. Leghorns	\$13 per 100
	\$62.50 per 500
	\$120 per 1000
Barred Rocks	\$16 per 100
	\$75 per 500

De KOSTER'S HATCHERY,
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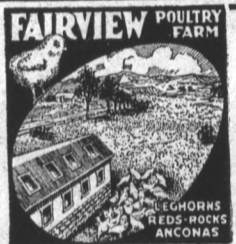
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Rocky Ridge Pure Parks Strain
Barred Rock Baby Chicks
\$16.00 per 100
HANOVER, MICHIGAN

CHICKS—PULLETS

High quality stock. Delivery 100% live and strong guaranteed. Chicks every week. Eight weeks and 3 mo. Pullets. Barred and White Rocks, Reds, White and Silver Laced Wyandottes, White and Buff Orpingtons, Black Minorcas, Anconas, White, Brown and Buff Leghorns. Send for Chick or Pullet Circular with price list.

STATE FARMS ASSOCIATION,
Kalamazoo, Michigan.
Active Member International Baby Chick Association
Member Michigan State Farm Bureau



CHICKS, EGGS PULLETS

Guaranteed to be from high producing stock.

EGGS 5 per 15
From Aristocrat strain exhibition exhibition Barred Rocks and Fairview Reds.

CHICKS

\$15 per 100.

Special Star Mating Barron White Leghorns and Mottled Anconas. Selected Utility Rocks and S. C. Reds. \$13 per 100—Selected Grade A Barron White Leghorns and Mottled Anconas. Catalog free.

FAIRVIEW POULTRY FARM
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Good Chicks FREE CATALOG

In Business For 22 Years

White and Buff Leghorns and Hatching Eggs

Barred Rocks, R. I. Reds

MEADOWBROOK FARM

HENRY DE PREE SONS

R. R. 1, HOLLAND, MICH.

CHICKS. ACCREDITED BY STATE. LEG-
horns, Anconas \$13.00; Rocks and Reds \$15.00; White Wyandottes, B. Orpingtons, Minorcas \$16.00 per 100. 100% live delivery guaranteed. Circular on request. Joseph Amster, Paw Paw, Mich.

ECZEMA CAN BE CURED Free Proof To You

All I want is your name and address so I can send you a free trial treatment. I want you to try this treatment—that's all—just try it. That's my only argument.

I've been in the Retail Drug Business for 20 years. I served four years as a member of the Indiana State Board of Pharmacy and five years as President of the Retail Druggists' Association. Nearly everyone in Fort Wayne knows me and knows about my successful treatment. Over Thirty-Five Thousand Men, Women and Children outside of Fort Wayne, have, according to their own statements, been cured by this treatment since I first made this offer public.

If you have Eczema, Itch, Salt Rheum, Tetter—never mind how bad—my treatment has cured the worst cases I ever saw—give me a chance to prove my claim.

Send me your name and address on the coupon below and get the trial treatment I want to send you FREE. The wonders accomplished in your own case will be proof.

CUT AND MAIL TODAY

J. C. HUTZELL, Druggist, No. 4960 West Main St., Fort Wayne, Ind.
Please send without cost or obligation to me your Free Proof Treatment

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J. C. HUTZELL
DRUGGIST

Poultry Department

EGG PRODUCTION DECLINES

We have eighty White Leghorns, last year pullets. We shut them up November 6th and began feeding for egg production; in a couple of weeks we began to get eggs and the production increased up to January 25th—on that day we got 66 eggs, next day 60 and then 50 to 55 per day for some time. Then production began to slump so that at this time we are getting around 20 a day. I did not increase the grain ration any from the time we shut the hens in and this is the question at issue with me. I have increased the grain ration lately to see if I could stop the slump. The hens seem to look nice and healthy but they seem to be shy of flesh. Do you think a hen can be too fat to produce if she has the right kind of rations?

We have had a gasoline lantern in the hen house in the morning and all night all winter so hens have had about twelve hours off and the same on. We have cut out the evening light for a couple of weeks but still put it on in the morning.—D. C., Fremont, Mich.

It is seldom that a good hen becomes too fat to lay, providing she has been fed a well balanced laying ration. It is not an unusual thing to find birds that have produced heavily during the early winter months, taking a rest the latter part of January, or during a portion of February. It is doubtful if feeding would entirely eliminate this period of rest, but egg production may be somewhat governed by the feeding method. I would think that it is a dangerous proposition, as far as egg production is concerned, to remove the evening light, after having used it during the greater part of the laying year. We usually feel that if lights are once used, that they should be carried through for the full season, or shut off gradually.—C. G. Card, Acting Head of Department of Poultry Husbandry, Michigan Agricultural College.

FREEZE COMB AND WADDLES

We have taken your paper for some time and think it is fine. Wish to ask you one question, Does the freezing of the combs and wattles hurt poultry in any way?—I. C. DeS., Dundee, Michigan.

We are sure that the freezing of poultry to such an extent that the comb and wattles injures it would interfere with egg production. Especially, do we feel this is true in the freezing of the wattles. The soreness here, hinders the birds from eating mash.

Regarding males, I would think that the freezing would lower the vitality and this would indirectly cause a loss in the flock.—C. G. Card, Assistant Professor of Poultry Husbandry, Michigan Agricultural College.

FEATHER PICKING

My chickens have been picking the feathers from each others heads. Would you please tell me the cause and the cure? I bought some eggs for hatching where the chicks did the same. Is it a disease and can it be transmitted thru the eggs? Also please tell me what chickens are considered the best for both laying and meat?—Mrs. J. E., Orleans, Mich.

It is doubtful if feather picking is a disease transmitted through the egg. I would rather think it is due to a lack of exercise, and would suggest that the birds be turned out doors where they can receive plenty of sunlight and exercise.

The birds that are usually considered the best for general purposes are the Barred Rock, Rhode Island Red, and the White Wyandotte.—G. G. Card, Assistant Professor in Poultry Husbandry.

THIN SHELL EGGS

Why do we get so many thin (not soft) shelled eggs? Our hens are fed buckwheat, oats, corn, also dry mash. Have oyster shells always before them, also gravel to pick at, water and milk to drink, still we get eggs with shells you can crush with thumb and finger.—A. S., Rhodes, Michigan.

As a suggestion on increasing the strength of the egg shell, I would recommend that you add about three per cent ground lime



FANCY STOCK at RIGHT PRICES

BARRON WHITE LEGHORNS
ANCONAS
WHITE WYANDOTTES

Order from this list.

White Leghorns, (270-300 ancestry)	\$13.50 per 100
Sheppard Anconas (300-egg strain)	\$13.50 per 100
White Wyandottes (Evergreen strain)	\$18.00 per 100
Odds and Ends (Broilers)	\$10.00 per 100

Shipped by parcel post. Safe arrival guaranteed.

Reliable Poultry Farm and Hatchery

R. R. 1, Box 48, Zeeland, Mich.



Tancred, Barron, Hollywood

Three in one—this tells in a nutshell the unusual merits of Town Line White Leghorns.

We have blended the three most famous egg types in the world. The result is a triumph.

Our pen at the International egg laying contest of 1924 outdid the pen from one of their renowned ancestral farms by 95 eggs; laid 201 more than the average of two pens from another famous farm and more than 84 of the 100 pens entered. (Figures on request.)

Also made best display in production class at Zeeland show of 1924.

Anconas—Barred Rocks—Brown Leghorns
Our Special Star W. L. Matings are headed by Tancred, Hollywood and Barron males of 250-290 egg ancestry. Anconas by Sheppard males. Price only 18c each; 17c in 500 lots. Other matings at 14c and 13c each.

5% Discount on all prepaid orders placed 30 days before shipment. Live delivery guaranteed.

TOWN LINE POULTRY FARM
R. R. 1, Box 19 Zeeland, Mich.

CHICKS W. LEGHORN-BARRED ROCK BLACK MINORCA-ANCONA

Official International Egg Contest Records up to 254 Eggs.

Few can equal our PRICES. No one can beat our QUALITY.

Before ordering your 1925 chicks send for our CATALOG. Our LOW PRICES will astonish you.

Over 20 years experience assures your satisfaction.

Established in 1904 Sent by PARCEL POST PREPAID.

100% Live Delivery Guaranteed.

PINE BAY POULTRY FARM, Holland, Michigan.

BABY CHICKS

10 FREE If ordered in advance.

20 varieties. Pedigreed Cock-

ercels from best laying pens

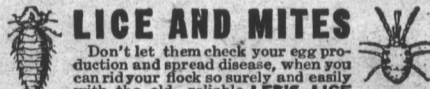
of Michigan guaranteed blood tested. Trap-

nest 200 eggs up. Write for free circular

before buying elsewhere.

BECKMAN HATCHERY

26 Lyon St. Grand Rapids, Mich.



LICE AND MITES

Don't let them check your egg production and spread disease, when you can rid your flock so surely and easily with the old, reliable LEE'S LICE

KILLER. New, free 64-page book by Geo. H. Lee tells also how to stop worm and disease troubles of poultry and hogs—information worth many dollars. Million copies already requested. Get Lee's Lice Killer and free book at the leading drug or seed store in your town, or write to the

GEO. H. LEE, Dept. 109, Omaha, Neb.

Well Pleased With Results!

Enclosed, find check for \$2.00 for my advertisement in The Business Farmer for two issues for turkeys. I am well pleased with the results I get from the ads and they certainly pay. I thank you.—D. F. Marshall, Beulah, Michigan.

What Have You For Sale?



ROYAL HATCHERY & FARM
ZEELAND, MICH.

OUT IN FRONT AT CONTEST

The Royal White Leghorn pen at the International Egg Laying contest of 1925 led the entire field for the first two weeks. For the succeeding two months they were a close second in the Leghorn division, then on Jan. 30 went ahead and on March 1 still led all the Leghorns.

Such birds speak for themselves. We have thousands like them, mated to pure Tancred cockerels whose dams laid 225 to 299 eggs in a year.

75% of Our Sales Are To Old Customers
100% live arrival and good condition guaranteed. Write for catalog and prices at once.

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



Great Northern HATCHERY

High Grade Stock At Prices You Can Afford to Pay

Bred for Eggs, not for show feathers. Every chick from our farm is of proven egg laying strain.

ENGLISH BARRON LEGHORNS
ARISTOCRAT BARRED ROCKS
BROWN LEGHORNS

ORDER FROM THESE PRICES

Grade	AA	50	100	500	1000
White Leghorns					
Pedigreed males	\$8.50	\$16.00	\$75.00	\$145.00	
Barred Rocks					
Aristocrats	9.50	18.00	85.00	165.00	
Grade A					
White Leghorns	7.00	13.00	62.00	120.00	
Barred Rocks	8.00	15.00	72.00	140.00	
Brown Leghorns	7.00	13.00	62.00	120.00	
Broilers					
Heavy		12.00			
Mixed		9.00			

100% Live Delivery Guaranteed. Catalog free. Now Booking Orders for Pullets for May 15 Delivery.

Great Northern Poultry Farm
Zeeland, Michigan, R. R. 4, Box 57



PUREBRED CHICKS

250 to 280 Egg Strain
pedigreed males head our famous flocks of Tancred American and Tom Barron English White Leghorns, Sheppard's Famous Mottled Anconas, Park's Bred-to-Lay Rocks. Our birds won first prize in egg production class at Holland and West Michigan State Fairs. All flocks bred through generations for high egg production. Prompt, 100% live delivery, prepaid, anywhere east of the Rockies. Prices low. Order early to get chicks when you want them. Our beautifully illustrated, instructive Free chick booklet will give you much valuable information. Write for your copy now.

Silver Ward Hatchery, Box 30, Zeeland, Mich.

INCUBATOR 140-EGG CAPACITY

Has all the features that insure big hatches—double walls, copper tank, complete nursery, perfect heat control through automatic trip burner, "Tycos" thermometer held so chicks can't break it when hatching. Detroit Broilers, too. Write for low combination price today!

Detroit Alliance Incubator Co.
Dept. 10, Alliance, Ohio

CHICK FEEDERS and SOUR MILK FOUNTAINS

The "SELF-SERVE" Chick feeder holds 12 pts. of mash. Can't clog. Chicks cannot contaminate feed. May be used out of doors. Price \$1.50 plus postage. Sour Milk Fountain holds one gallon; non-poisonous. Chicks can't wade in trough. Easily washed and will not clog when milk thickens. Price—\$1.60 plus postage. Catalog free.

Ask your DEALER or order direct. **IRA P. HAYES, Dept. A, Eckford, Mich.**



MICHIGAN HATCHERY

Pedigreed, Heavy-Egg Strain Chicks
White Leghorns headed by males direct from Eckford; last year's M.A.C. International Egg Contest winners. Also leading strain Anconas, Rocks, S.C. Reds. Culled by experts. Modern hatching methods. Guaranteed 100% vigorous delivery. Free Catalog.

Michigan Hatchery, Box 4, Holland, Mich.

stone to your mash feed. It seems that the ground lime stone makes a higher percentage of available lime than can be obtained by the eating of oyster shell. I would judge that after your hens are turned out on free range in the spring, that your shell texture will improve. Plenty of green food may improve the shell texture to some extent at this time.—C. G. Card, Acting Head of Department of Poultry Husbandry, Michigan Agricultural College.

OLD HENS NOT SURE WINTER LAYERS

AGE is no indication of worth in the feathered kingdom according to poultry specialists. Old hens do not make dependable winter producers, according to many specialists. The good ones are usually occupied with their molt about the time high prices are ruling. These hens may be very desirable for breeding good chicks for the next season but the early hatched pullets are the ones that shell out the winter eggs. By early hatched birds they mean those that reach laying age before severe cold weather sets in. The lighter breed, like the Leghorns, will begin to lay in five to six months but a month or two must be added to this for the American breeds like the Rocks and Reds. Asiatics require from nine to ten months, and hence are not profitable as a rule.

TUBERCULOSIS CAUSES BIG LOSS IN POULTRY

TUBERCULOSIS in poultry is caused by a germ which has many of the characters of the germs that cause the disease in the human family and in other animals. These germs live for many months in the dark, damp places about poultry yards and in the poultry house but can be killed by thorough cleaning and disinfecting.

Tuberculosis in poultry causes an unthrifty condition, especially in the older birds. They get poor and thin, lose flesh rapidly in most cases, and many of them get lame. External examination of the dead birds will show that very little meat is present on the breast bone. A post-mortem examination shows the liver is usually covered with white spots. If these spots are cut into with a knife they are usually found to be gritty. Similar white specks will be found on the spleen. If the case is well advanced, small white specks and sometimes abscesses will be found among the intestines. Losses from tuberculosis in chickens is usually greater in winter than in summer.

"The only known means of control is to eradicate the infected birds because they distribute the disease to the other birds", Dr. G. S. Weaver of the South Dakota State College declares. "If the flock is standard bred it may pay to have them tested with the tuberculin test but the ordinary farm flock had better be disposed of in some other manner. Before hatching time next spring, an infected flock should be gotten rid of by killing and burning all sick birds and marketing those fit for killing purposes. Clean and disinfect the hen house and poultry yards and then start a new flock by the use of an incubator. The disease is not inherited and any chicks hatched by the use of an incubator are free from this disease until they are exposed in some other manner."

Chickens need sunlight to prevent rickets.

Planning the home grounds now should precede planting in the spring.

Communities that want to get the most out of an extension system through the county farm bureaus should have a definite program to plan.

GET THIS BOOK FOR YOUR LIBRARY—IT'S FREE!

A PRACTICAL handbook that contains much of use to any farmer is "Alpha Cement—How To Use It," issued by the Alpha Portland Cement Company. It should be in the library of every farmer. The book is free to anyone who wishes a copy and can be secured from the Alpha dealer in your own town or you can write to the company at Easton, Pa., or 140 S. Dearborn St., Chicago, Ill. The company is a steady advertiser in THE BUSINESS FARMER (you will find their advertisement in this issue) and in writing them we would appreciate it if you would mention that you saw their ad in THE BUSINESS FARMER.—(Adv.)

CAN YOU DEPEND ON THE TAG?

BEFORE you buy your seed this spring, write to the State Department of Agriculture or State Experiment Station for a copy of your state seed law.

Study it carefully. Insist that every lot of seed you buy is accurately labeled in accordance with the law and sold from the original package.

But don't think the label tells the whole story. Two brands of seed labeled alike and sown under the same conditions sometimes produce very different crops. Two crops that look alike in the field often measure up different in the barn. The information the tag can't give is sometimes more important than the information it does give.



FREE—This book tells why "7 Lessons in Judging Seed" is a little book written by seed experts. It is worth dollars and cents to every farmer. Not a catalog but a practical treatise on seed buying, full of valuable information. Sent free on request. Write for your copy today.

THE ALBERT DICKINSON CO.

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"PINE TREE" FARM SEEDS

Sold By Good Dealers Everywhere



Wingarden Strain
WHITE LEGHORN BABY CHICKS

Tancred Holly-wood
EGG BRED Barron

for 19 YEARS

Brown Leghorns
Anconas
Barred Rocks

Males from 298-304 egg ancestry; hens from 260-289 ancestry. Every chick strong and healthy, broods making uniform flocks that average high in egg production. 100% safe arrival guaranteed. In short, we sell you profits—how much do you want?

Read our catalog for full information.

Wingarden HATCHERY & FARMS
ZEELAND, MICH., BOX B



KEYSTONE HATCHERY

CHICKS Leading best strains in varieties mentioned below. Quality all along the line is our motto. BLOOD TESTED STOCK.

Arrival Guaranteed—Postpaid prices on	50	100	500	1000
Foreman Strain Barred Rocks	\$10.50	\$20.00	\$95.00	\$185.00
Selected Barred Rocks	8.75	17.00	80.00	155.00
Int. Laying Contest S. C. R. I. Reds	10.50	20.00	95.00	185.00
Extra Selected S. and R. C. R. I. Reds	9.50	18.00	85.00	165.00
White Rocks and Wyandottes	9.50	18.00	85.00	165.00
Tancred White Leghorns, Select S. & R. C. Reds	8.50	18.00	75.00	145.00
Utility and Barron White Leghorns	6.50	13.00	60.00	115.00

Mixed, all heavies, \$13 per 100 straight. Mixed, all varieties, 100, \$12 straight. If it is real EGG LAYING QUALITY that you want in your Chicks, Keystone Chicks will fill the bill for you. They are Winners in Laying Contests in Michigan, Missouri, Connecticut, Canada, etc. Get our Literature giving these winnings before buying Chicks elsewhere or order direct from this ad.

KEYSTONE HATCHERY, Dept. 51, Lansing, Michigan



PIONEER POULTRY FARM

have stood the test and assure you of **STRENGTH, VIGOR, and RAPID DEVELOPMENT.**

By our rigid system of culling and pedigreed matings our flocks are being improved each year.

Once a customer always a customer.

"Last year I was more than satisfied with your stock, but this year I am just surprised."—J. T., Stevensville, Michigan.

Write for full particulars on pedigree, etc.

PIONEER POULTRY FARM
R. R. 10, Holland, Michigan

TYRONE POULTRY FARM

Let us sell you your 1925 Chicks from pure bred, select White and Brown Leghorns, Barred, White and Buff Rocks, R. I. Reds, Anconas, Black and White Minorcas, White, Buff, Golden and Silver Wyandottes, White and Buff Orpingtons, Black Spanish, Light Brahmas, etc. Of leading strains such as Barron, Parks, etc.

3000 CHICKS GIVEN AWAY TO OUR CUSTOMERS DURING 1925.

We guarantee 100% Live Delivery. Postpaid. Reference: Commercial State Savings Bank. Before ordering Chicks elsewhere, get our special circular containing our low prices and particulars about the 3000 PRIZE CHICKS.

TYRONE POULTRY FARM, Dept. 21, Fenton, Michigan.

L-O-O-K!

Can ship chicks of high grade quality at once! Barred Rocks, R. I. Reds, White Rocks, 15c each. Wyandottes, Buff Orpingtons, Buff Rocks, 16 1/2 c each. White, Brown Leghorns, 12c. Anconas, 13 1/2 c. Mixed heavies, 12c. Mixed light weights, 9 1/2 c. May chick \$1 per 100 less. Order from this adv. If less than 100 wanted, add 35c extra. Hatching eggs. Free circular tells about 15 first class varieties.

MARTIN'S SPECIAL PRICES
on High Quality Chicks
For a limited time only. Prices per 100: Selected Quality Tancred-English White Leghorn chicks (Pedigreed Male Matings), \$15. Barred Rocks and S. C. Reds, Utility Matings, \$16. Matings, \$18. Buff Orpingtons, \$17. English Wh. Leghorns, Utility Matings, \$13. 100% live delivery, postpaid. Catalog free. Martin's Poultry Farm, Box 137 Westphalia, Mich.

QUALITY CHICKS

Lawrence Hatchery, R. 7, Grand Rapids, Michigan.

BUY YOUR BABY CHICKS FROM M. B. F. ADVERTISERS

MARKET FLASHES

Speculators Making Prices in Wheat Market

Fair Demand for Cattle—Hogs Prices Expected to Go Higher

By W. W. FOOTE, Market Editor.

It cannot be denied truthfully that the times are improving, and the farmers are sharing in the return of prosperity. Of course, it is not all sunshine, and the year 1924 saw a short corn crop which gave many farmers a set-back and delayed return to normal conditions. But conditions this year promise well, and so far as corn production is concerned, there are many reports coming from various farming districts that farmers are exercising more diligence than in former years to thoroughly test their seed corn and demonstrate its germinating value. In these times of high wages demanded by helpers, farmers are compelled to devise every way possible to lower the cost of production and to increase the profits to the acre, and this applies to wheat and other grains as well as corn. A short time ago John W. Foster, the president of the First National Bank of Guthrie Center, Iowa, said in a business letter farming conditions are better than at any time in 1919 or since. The letter was written prior to the recent enormous breaks in grain prices, but most rational people look for a recovery in the near future of much of the decline. Mr. Foster noted the fact that farmers have received a substantial recovery in the prices for products they have to sell, while there has been a downward trend in non-agricultural commodities which the farmer has to buy. He points out that according to recent statistics, "the ratio of the farm dollar to the industrial dollar is about balanced. A while ago, it took two days' labor on the farm to equal one in the industrial enterprises, but by 1923 the farmer's income from his crop as compared to pre-war purchasing power had advanced and was \$1.40, while the things he needed to buy from the industrial world was \$1.75. The year 1924 appeared to have worked a total readjustment. Farm prices for crops have risen to \$1.58, while industrial prices have receded to \$1.55. This balancing of income and out-go is vitally important to the farmers and to those who do business with them, and supplies one of the necessary conditions for prosperity. Good crops supply another; balancing the ratio price of live stock and grain is a third. All these things are on the way."

Money for Cattlemen

A short time ago R. A. Cooper, commissioner of the Federal Farm Loan Board, returned to Washington from a long tour made at the request of President Coolidge, and stated that it was his conviction that there are ample funds immediately available for live stock and other farm industries for all purposes except for the repopulation of breeding stock on the ranges. Even as to the depleted range herds Mr. Cooper is hopeful and expresses the belief that this has long passed its crisis. He, with another member of the commission, visited all the states west of the Mississippi River and helped organize six new cattle loan companies in districts where the range breeding herds are most diminished. He said even conservative banks are now looking upon cattle loans as safe propositions, although they cannot function as well in financing breeding herds as other forms of credit institutions. The cattle loan companies, however, can be of inestimable service in this connection, and it was to this end efforts of the government officials were directed. Mr. Cooper said they tried everywhere to encourage the organization of the local agencies through which the farmers may take advantage of discounting facilities or direct loans available with government funds. "The cattle industry, which has recovered slowest of all agricultural pursuits," said Mr. Cooper, "unquestionably has struck bottom, and it is already on the way to betterment."

All regard to the legitimate value of wheat has been disregarded for

several weeks, and the law of supply and demand has been set aside, the speculators on the Chicago Board of Trade being the actual rulers in making prices. It is not a pleasant thing to say, and ultimately the consumers may be expected to take or leave the wheat, buying it if it is not too dear as compared with other food, but of late wheat has been treated like a football, with fluctuations that startled honest traders. At first the bulls were in complete control, and everybody was buying, May wheat soaring to around \$2.06 a bushel. Wise owners lost no time in placing their wheat on the market, while those who believed it would go to \$2.50 later held on and saw it sell away lower, the fall in a single week reaching 40 cents. The future is uncertain, but it may be expected to go up again within reasonable limits. Meanwhile, it is worth while to take a view of the actual surroundings and to note the improved export demand for breadstuffs on the big breaks in prices. Then there is the recent official report made by the Department of Agriculture on the wheat left in this country. It appears that on the first day of March the total wheat supply in all positions amounted to 259,000,000 bushels, comparing with 305,000,000 bushels a year ago, and 310,000,000 bushels two years ago, while in 1922 there were 253,000,000 bushels. There is a small increase in the winter wheat acreage of fifteen countries, the grain being about 4.3 per cent over last year, while the rye acreage of twelve countries is 27,323,000 acres, an increase of 5.2 per cent over last year. Rye has closely followed the price fluctuations of wheat, and a short time ago rye for May delivery was selling 60 cents a bushel under the highest prices of the season. It seems evident that there must be a marked improvement in the exports of rye from the United States to absorb the supply now in sight. Oats alone of cereals, have been selling a little lower than a year ago, due to the rapid marketing of the crop, the visible oats supply far exceeding that of a year ago. Late sales for May delivery were made on the Chicago Board of Trade of wheat at \$1.48, comparing with \$1.05 a year ago; corn at \$1.18, comparing with 78 cents a year ago; oats at 45 cents, comparing with 47 cents a year ago;

and rye at \$1.20, comparing with 67 cents a year ago. May barley sells in Minneapolis at 82 cents comparing with 67 cents a year ago.

Fair Demand for Cattle

While the Chicago cattle receipts recently could hardly be called particularly large, there were at times rather more than the local and eastern packers needed, and some sharp breaks in prices took place. A late rally in prices occurred, but prices were still largely 50 to 75 cents lower than a week earlier, the bulk of the beef steers offered during the week finding buyers at \$9 to \$11. The commoner light weight beef steers sold at \$8 to \$9 with low grade little steers going for \$5.75 to \$7.75 and the best lots of yearlings at \$11 to \$11.80 and no good steers offered below \$9.75. There were not a great many choice long fed steers and the best heavy steers offered brought \$11 to \$11.40. Looking back a year, it is recalled that common to prime steers were selling for \$6.85 to \$12, while nine years ago prices stood at \$7.75 to \$10. Butcher cows and heifers are active sellers at \$4.25 to \$10.75, with canner and cutter cows selling at \$2.50 to \$4.25, bulls at \$3.50 to \$6 and calves at \$5 to \$12 the calf market having declined from \$2 to \$3 per hundred pounds. The purchases of stockers and feeders were only moderate at \$6 to \$8.75, sales being largely at \$7 to \$8.25 for desirable offerings. The better class of springer cows sold at \$75 to \$90 per head, medium grade dairy cows going for \$50 to \$65.

Hogs Good Property

No matter how prices may be going temporarily, hogs are good investments, and their fortunate owners need not hesitate about finishing them off in good marketable condition. Because of the great falling off in the receipts in all markets, they are selling at a great advance over the early year prices, and they will probably advance much higher later on. Of course, the market has reactions at times, but advances follow; and within a short time new high levels for the season were reached, the top standing at \$14.60. A year ago hogs sold at \$6.50 to \$7.50. For the year to late date the combined receipts in twenty markets amount to 10,079,000 hogs, comparing with 11,397,000 a year ago. Late sales were made of hogs on the Chicago market at a range of \$12.90 to \$14.15.

Some Figuring

Live Stocks Markets does the following figuring: "For those who are fond of figuring the recent live stock

estimate of the bureau of agriculture furnishes an interesting field. That bureau estimates twelve million fewer hogs and two million fewer beef cattle on hand January 11, as compared with the same time a year ago. This figures about two billion four hundred million pounds of pork less and two billion pounds of beef less. Taking population into consideration this results in about 15 pounds per person less pork will be served than a year ago and a decrease per capita of fully 8 pounds less."

WHEAT

The bulls continue to be very prominent in the wheat market although prices fall to show advances. The fore part of last week prices at Detroit dropped 11 cents but directly after they advanced 8 cents, broke again but recovered leaving the price at the close of the week slightly under two weeks ago.

CORN

Corn followed the trend of wheat. Trading has been light and receipts are expected to be small for the near future.

OATS

Demand is fair in the oat market and a steady tone prevails. Commission concerns are taking a large share of the offerings. Receipts continue small.

RYE

Rye has taken a serious slump during the past fortnight and prices are much lower than they were at the beginning of that period. The market is easy.

BEANS

In spite of the many reasons advanced that beans should be bringing more money the price continues to work lower. The Detroit market gained 5 cents on Saturday of last week and the day closed with the market steady.

POTATOES

There is a liberal supply of potatoes on the market and the demand for old stock is slow. The market is easy at lower prices.

HAY

The hay market is not active, the main part of the receipts being off grades and they are not wanted. The market is easy in tone with prices somewhat lower.

SEEDS

DETROIT, March 21—Clover, prime \$17.00; timothy, \$2.90; alsike, \$13.75. CHICAGO, March 21—Timothy, seed, \$5.25@6.50; clover seed, \$21@31.

LIVESTOCK MARKETS

EAST BUFFALO.—Cattle—Receipts, 175; slow and dull. Calves—Receipts, 250; active; choice, \$13.50@14; fair to good, \$12@13; culls, \$8@11.50; heavy, \$6@8; grassers, \$3@5. Hogs—Receipts, 3,500; slow; generally 25c lower; heavy and mixed, \$14.25; yorkers, \$14@14.25; light yorkers, \$13@13.75; pigs, \$12.50@13; roughs, \$12.50; stags, \$6@8. Sheep and Lambs—Receipts, 1,000; slow; lambs, \$10@15.50; yearlings, \$10@14; wethers, \$11@11.50; ewes, \$3@10; mixed sheep, \$10@10.50.

CHICAGO.—Fresh supply of hogs not large but demand lacked action for heavy kinds. Sellers found a fair market for choice light animals, and some of these were up a dime from the low time of Friday of last week. Prime heavy butchers sold at \$14@14.10, against \$13.85 for top hogs at the close of last week. At the best time, last week top lots went to \$14.60, but stopped at \$14.15 Saturday. Bulk of good packing hogs sold at \$13@13.40 and sellers had about 6,000 unsold hogs at the close. Present price show up somewhat higher than a week ago.

Cattle trade was of little account. The run was estimated at only 500 head. Small lots were picked up at unchanged values. The market for steers dropped 50@75c in many cases, early last week, but there was a better demand again later and closing values were 15@35c off from those noted a week ago. Cows and heifers also closed little changed after a low spot early in the week, but calves were off more than \$1.50.

The sheep market was hardly more than nominal here. Fat lambs were down as much as \$1.25, while feeders closed 50@75c off. Aged muttons lost more than \$1, with choice light ewes at \$9.25 and down.

THE BUSINESS FARMER'S MARKET SUMMARY

and Comparison with Markets Two Weeks ago and One Year ago

	Detroit March 23	Chicago March 23	Detroit March 9	Detroit 1 yr. ago
WHEAT—				
No. 2 Red	\$1.77		\$1.81	\$1.06
No. 2 White	1.76		1.81	1.07
No. 2 Mixed	1.76		1.81	1.06
CORN—				
No. 3 Yellow	1.18	\$1.13	1.26	.81
No. 4 Yellow	1.13		1.21	.77
OATS—				
No. 2 White	.53	.47 3/4	.58	.49 1/2
No. 3 White	.52	.45@.46 3/4	.57	.47 1/2
RYE—				
Cash No. 2	1.16		1.45	.66
BEANS—				
C. H. P. Cwt.	5.65@5.75	6.25	6.00@6.10	4.70@4.75
POTATOES—				
Per Cwt.	1.07	1.00@1.05	1.14@1.17	1.50@1.66
HAY—				
No. 1 Tim.	16@16.50	19@21	16@17	23.50@24
No. 2 Tim.	14@15	15@17	14@15	21.00@22
No. 1 Clover	13@14	14@15	14@15	20.50@21
Light Mixed	15.50@16	17@19	15@16	22.50@23

Monday, March 23.—Grain unchanged. Bean market steady. Potatoes easy. Butter and eggs in demand.

THE SUMMER MEETING OF BEE MEN

THE summer meeting of the Michigan Beekeepers' Association will be held August 5-6 at East Jordan. Mr. Ira Barlett and Mr. George Jaquays, local commercial beekeepers, are making arrangements to care for the beekeepers. Since this district is the home of many of Michigan's best beekeepers, the meeting is sure to be well attended. Following the meeting it is planned to conduct a tour through the disease-free areas in northern Michigan to examine the results by the Area Clean-up Campaign of the Department of Agriculture. Please keep the dates in mind and look for further announcements regarding the program.

KALAMAZOO COUNTY HOLSTEIN BREEDERS MEET

THE annual meeting of the Kalamazoo County Holstein Breeders Association was held March 11 at Oshtemo. The main interest of the gathering centered around a discussion of how to improve the usual strong showing of Holsteins at the County Fair. Among the points raised was that the Fair Board be requested to add a division for cows of each breed with Cow Testing Association records—breeds to be judged separately, but purebreds and grades of each breed to compete in the same class. To be eligible for entry any animal must have com-

pleted a record entitling her to entry in the Michigan Record Performance—280 pounds of fat as a two year old to 400 pounds as a full aged cow. Two prizes to be offered in each class.

Calf club work and Area Testing for TB Eradication also came up for discussion. The breeders decided to hold a tour next July or August, accepting the invitation of Mr. Yager to picnic on the State Hospital grounds.

Dues in the Association were reduced to \$1.00 per year.

R. E. Olds, county agent, and Phil Sexton, Secretary of the Kalamazoo County Farm Bureau, were present and helped in discussions. J. G. Hays, Secretary of the Michigan Holstein-Friesian Association made a short talk pointing out a few things that the breeders could do to help the Holstein breed in their county.

A reel showing "1924 Champions at the National Dairy Show" was flashed on the screen.

Meeting adjourned to meet late this month with Mr. Yager to elect officers, the present President W. E. Balch and present Secretary Roy Buckham holding over.

HOW BILL BUCKED THE TIGER (Continued from Page 6)

her just plain wild. She couldn't follow directions and the socks would not roll out like the picture book said.

The wimmin, particularly Maria, claimed Bedelliah would lose her mind and after a meeting of the Missionary Society they decided to ask her to get rid of the machine. So they went to see her and succeeded in convincing her to send it back.

I boxed up that contrivance and Bedelliah had Jim Harper write a letter to the company.

In a week Jim got a letter and the company said they sold that machine outright and they wasn't taking back second hand property. So Jim wrote another letter saying the lady was hard up and a note had to be paid. "Let her make socks," wrote back the company, "and she can pay for the machine like our other successful workers have."

Well, that darned near caused a riot in our town. Everyone was trying to figure out a way to get Bedelliah's money for her. Even Judge Stanton investigated and finally he asked a farm paper what they could do for the lady. At any rate, before the matter was settled, the paper got Bedelliah two thirds of her money back and we was happy. That paper was a friend of ours from then on. We thought we had Bedelliah cured. Nothing doing though. What does she do but fall into one of these mail order matrimony sharks' hands. They sent her a long list of things to fill out (Maria got this information) about her accomplishments and what kind of a well to do, handsome man she wanted. Bedelliah fixed up the record blank and sent it in with a check. I don't recall how much. But instead of getting married she pulled the prize bonhead of her career. You see the old fool put on that list of accomplishments that she was an opera singer. And to make good she signed up for a correspondence course in grand opera singing, thirty lessons and a career, "pay as you learn".

Well, Miss Stokes only took a few lessons. It was like some one was dying from being carved to pieces slowly, the way she howled.

The neighbors were just about ready to have a revolution and then Hallowe'en came and all the boys in town went up about ten thirty and begins to mock Bedelliah. It was enough. She told Maria and the Smith woman afterwards, it just crushed her to think what her townsmen thought of her. I said that was all of that, but it wasn't all.

The notes for paying for the course began to roll in and it took the efforts of Charley Stanton, Jim Harper and me to clean up that mess. So Bedelliah has promised me that she won't sign up any more courses without consulting Maria about it first and Maria has promised me that she won't advise her till I get a chance to look the matter over.

Keeping some folks out of trouble is more work than stacking straw in a wind and darned near as mean a job sometimes.

(Continued in April 11 Issue)



Week of March 29

TEMPERATURES will be warm for this time of year in Michigan at beginning of this week. The barometer will be low, winds strong and scattered showers and rains with spring thunder storms are all likely probabilities for this period.

By the middle of the week storminess is expected to have passed this state and as a result there will be a change to colder weather with clearing skies.

Toward the end of the week temperatures will again rise to much higher levels followed by increasing cloudiness, showers, thunder storms and wind. This storminess will be in full force in Michigan at end of this and beginning of next week.

Week of April 5

Moderate spring temperatures will be the rule at beginning of this week in Michigan but before the middle of the week arrives the bottom will have dropped out sending the mercury in the thermometer much lower.

Precipitation during the storm area of the first part of this week is not expected to be very heavy throughout the state although there may be some heavy falls in local centers together with early electrical storms and strong winds.

The average temperature for the next six to eight days following this storm center will range generally below normal in this state.

April Weather

April weather in Michigan is not expected to be about seasonal in temperature or possibly a little below normal, yet not sufficiently adverse for spring growing crops usually planted or growing at this time. This means that fruit trees generally should be safe from a too early or rapid growth and will not be in so precarious a position in regard to the extremes of weather during next month.

The average precipitation for the most of April is expected to be below the seasonal normal in Michigan. This will mean there will be little or no serious delay in farm activity in preparing ground for planting oats, barley and other spring crops.

FREE BOOK ABOUT CANCER

The Indianapolis Cancer Hospital, Indianapolis, Indiana, has published a booklet which gives interesting facts about the cause of Cancer, also tells what to do for pain, bleeding, odor, etc. A valuable guide in the management of any case. Write for it today, mentioning this paper. (Adv.)

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ADDITIONAL SALESMEN WANTED FOR UN-occupied territories. Our proposition is an unusual opportunity for high grade men, offering greater earning power and steady work. Must have car. Full information on request. Minneapolis Woolen Mills Co., Inc., 612 First Ave., Minneapolis, Minn.

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WANTED—HOUSEKEEPER ON FARM. Adults. Electrical appliances. E. E. Stark, Manchester, Michigan.

YOUNG MAN FOR FARM WORK. MODERN machinery, State wages expected. Schiffer Acres, Remus, Michigan.

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FOR SALE—1,000 ACRE RANCH. SACRIFICE. Attention sheep, hog or cattle raisers or attention some one who can afford sportsman's paradise, private hunting and fishing lodge. Ranch located in Montcalm County, Michigan, between Grand Rapids and Saginaw. Private lakes, good buildings, soil, railroad facilities and roads. Write for particulars. Might consider some trade. Best buy I ever inspected. Price right, terms easy. This is no wild guttler land proposition. Arthur G. Lueder, 40 N. Dearborn St., Chicago, Illinois.

FOR SALE—800 ACRES WILD LAND, \$8.00 an acre. Will break in two tracts. Easily cleared. Small improvements. No cash payment down to right party who must harvest annually, after second year, 15 acres of Grimms certified alfalfa seed for land payment and interest. Only a sheep man need apply. For alfalfa and sweet clover chaff fits in nicely with a band of breeding ewes. Will sell on 10 yearly cash payments also if preferred. John G. Krauth, Millersburg, Mich.

ATTENTION FARMERS IF YOU ARE LOCATED within 60 miles from the city of Detroit and you want to trade your farm for Detroit property and want to have a good and honest business also quick results, list your farms with us, with a responsible company, we specialize in selling farms with all stock and machinery. Write to the Home Land & Building Company, 8580 Jos. Campau, Detroit, Michigan.

FOR SALE—IMPROVED LEVEL CLAY LOAM 80 farm. Four buildings, electricity, consolidated school, mile north Williamsburg, 13 Traverse City. Sarah Tindall, 277 Irwin, Muskegon, Michigan.

FOR SALE—MICHIGAN FARMS IN JACKSON, Washington, Ingham and Livingston Counties fully equipped. Reliance Farm Agency, 24 Sun Bldg., Jackson, Michigan.

FOR SALE—120 ACRE FARM. GOOD SOIL, timber, lighting system. Will sell machinery with farm. Four miles from Richmond, Mich. Mrs. Alvah Scouten, Richmond, Michigan.

FOR SALE—IMPROVED FARMS. RANCHES. Any state. List free. L. D. Thompson & Company, 3621 S. State Street, Chicago, Illinois.

FARMS NEAR DETROIT, MICHIGAN, AND PSY- lanti. Write for list, stating kind wanted. E. W. Bordine, Route 5, Miland, Michigan.

LARGE AND SMALL FARM. EASY TERMS. C. Witmer, Crewe, Virginia.

SEED

CHOICE SEED CORN—1000 BU. 100-DAY Improved Yellow Dent: 500 bu. Lancaster County Sure Crop: 300 bu. Early White Cap. nearly all 1923 Crop, all high germination. Write for price, sample and circular. Order early to save money. Shull Farm, Box 20, Tullytown, Bucks Co., Pa.

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HATCHING EGGS, R. C. R. I. REDS, BRED for color, size and egg production. \$1.25 per 15 postpaid. Mrs. Albert Harwood, R4, Charlevoix, Michigan.

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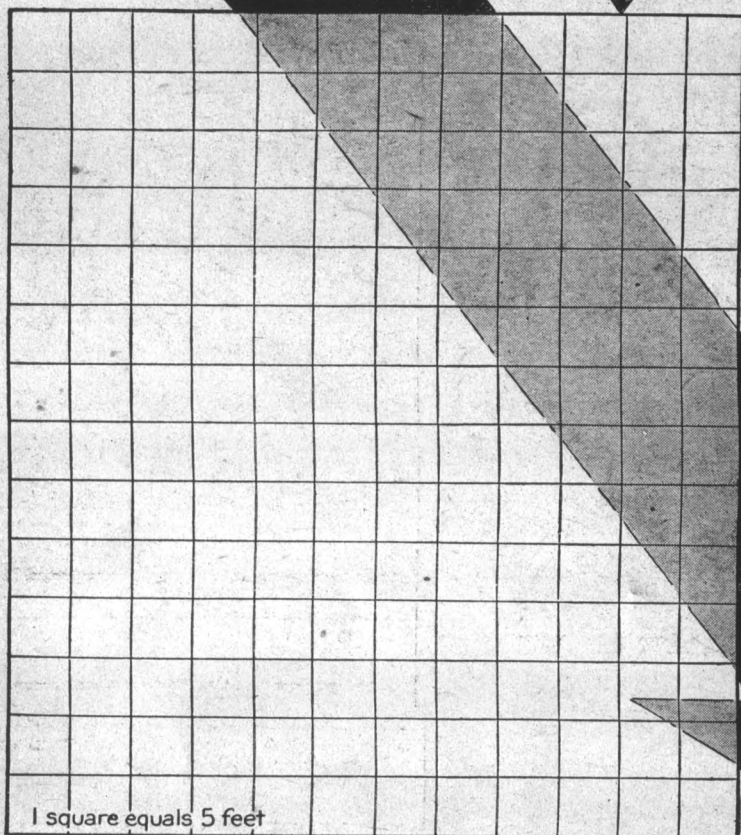
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Thousands of users say their De Laval Milker is the best investment they ever made and that they wouldn't part with it for twice its cost; many go so far as to say they would sell their cows if they couldn't have one. Your only regret after you put a De Laval Milker to work will be that you didn't get one sooner—and the longer you use it the better you will like it.

Conservatively figured, a De Laval Milker will make at least \$20. per cow per year in saving time and increased milk which usually comes as a result of its use and because of its regular, stimulating and soothing action. A De Laval Milker usually makes much more than this, frequently saving one or more men.

In addition, when it is considered that cleaner milk can be produced, that the drudgery and dislike of hand milking are eliminated, and that dairying is made more pleasant for owner, son or hired man, you have the answer why so many people are installing De Laval Milkers.

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Questions

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Owing to the rapidly increasing use and popularity of De Laval Milkers, savings in their manufacture have been made which make possible reduced prices for 1925. There is now no longer a good reason why any owner of 10 or more milch cows should be without a De Laval Milker.



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1. State maximum number of cows to be milked.....
2. How many rows of stanchions to be fitted up?.....
3. How many cows or stanchions in each row?.....
4. How long is each row of stanchions?.....Feet
5. How far between the rows of stanchions?.....Feet
6. Is there an alley from side to side?..... In center?..... On end?.....
7. Is there anything to prevent running a pipe line from stanchion row to stanchion row?.....In center?.....At end?.....
8. How high above the stanchion row will it have to be placed?.....
9. Have you steel stanchions?.....What make?.....
or wooden stanchions?.....
10. How near to the stanchions in feet can the pump be placed?.....
(Please locate on sketch)
11. Have you electric power?.... If so, give Voltage.... Phase... Cycle...
12. Have you a motor?.... If so, state H. P.... Speed.... Size Pulley...
13. Have you a gas engine?.... If so, state H. P.... Speed... Size Pulley...
14. How many milker units will you require?.....
(One man with 2 units can milk and strip 20-25 cows per hour.)

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