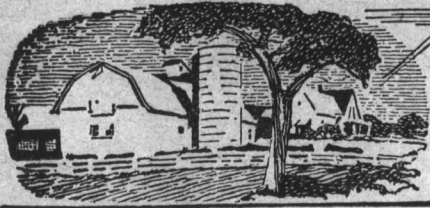
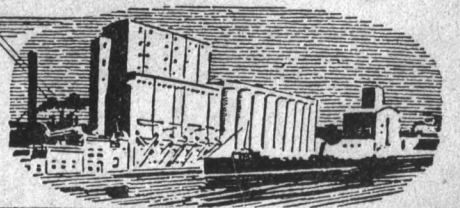


The Michigan **BUSINESS FARMER**



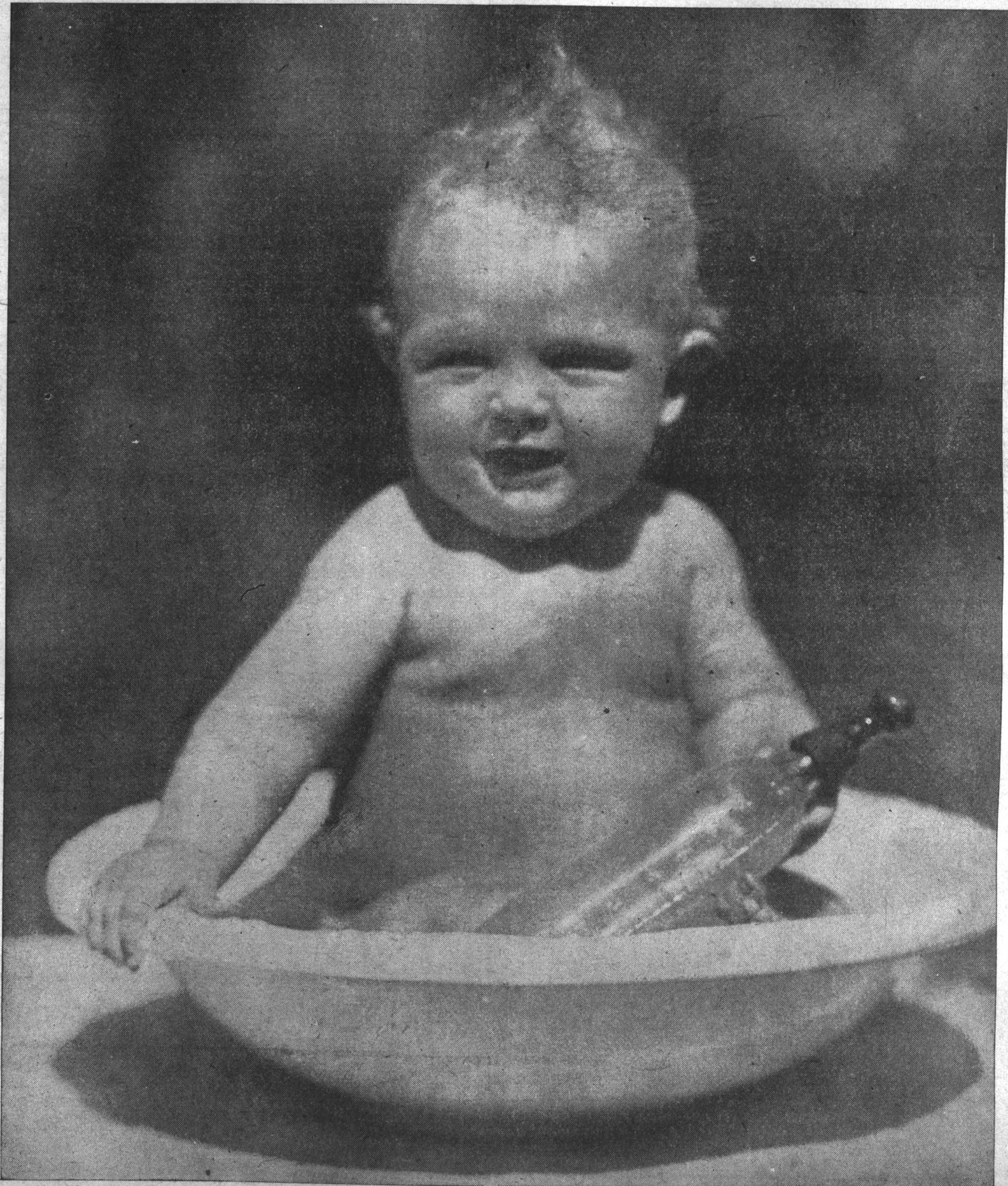
An Independent
Farm Magazine Owned and
Edited in Michigan



VOL. XI, No. 10

SATURDAY, JANUARY 5, 1924

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



1924—Looks Like a Happy New Year, Doesn't he?

A. B. Cook Calls Meeting of Michigan Bean Growers, To Be Held at Owosso, Friday, January 18th.

OVER
14,000
 Thrifty Michigan People are
 receiving a safe, permanent,
 tax free income

6.6%

AND SAFETY

Backed by a Great and Growing Electric
 Light and Power or Gas Service to 154
 Thriving Michigan Cities and Towns
 — day and night —

Consumers Power Preferred Shares

Tax Free in Michigan — The Company Pays the Taxes

It will profit you to investigate. Get our Picture
 Circular with the facts. Ask our employees or write

CONSUMERS POWER COMPANY

Securities Department

JACKSON, MICH

The Greatest Clubbing Offer Ever Made

The Michigan
 Business Farmer
 (Bi-Weekly)

AND

Detroit Times
 (Daily Market Edition)

BOTH ONE FULL YEAR

\$3.25

Regular Price \$6.00

WE believe this to be the greatest offer ever made to residents of rural
 routes in Michigan. It gives you a great metropolitan daily, keeping
 you abreast of state and international news of the day and Michigan's
 only home-owned and edited farm magazine, to keep you posted on
 farm news, the trend of the markets and what farmers and farmers' organi-
 zations are doing. This is an offer that should appeal to all real business
 farmers and we are proud to be able to make it at this time.

GEO. M. SLOCUM, Publisher

This phenomenal low price is made to R. F. D. addresses only. Use this order
 blank and send check, money order or registered letter to

The Michigan Business Farmer, Mt. Clemens, Michigan

THE MICHIGAN BUSINESS FARMER,
 Mt. Clemens, Michigan.

Dear Sir:—

Enclosed find \$3.25 for which you are to send The Detroit Times
 (Daily Market Edition) and the Michigan Business Farmer, both
 One Full Year.

NAME..... R. F. D. No.....

P. O. State.....

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Current Agricultural News

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 This winner is Mr. George D. Stuck,
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Electricity For All Farm Homes in Michigan

*Special Committee Working Under the Direction of State Public Utilities Commission Is Trying
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By R. C. GROESBECK

(Special Correspondent of The Michigan Business Farmer.)

CAN the network of high tension power lines that cover almost the entire state of Michigan be used to furnish electricity to the farms? This is a question which a special committee, working under the direction of the state Public Utilities Commission, is trying to solve.

The special committee which has been appointed to carry on an extensive investigation consists of George W. Bissell, dean of engineering at the Michigan Agricultural College; L. Whitney Watkins, head of the state department of agriculture; Roy T. Duncan, of the Detroit Edison Company; Alfred Fisher, of Ann Arbor, director of the committee on public utilities information; and A. B. Cook, of Owosso, master of the Michigan State Grange.

It is thought by the committee that the rural power lines of the state can be used for the double purpose of furnishing electricity to the farms and lighting the rural highways. Electrical power is not available for farms at the present time because the voltage is too high, but, according to Dean George W. Bissell, chairman of the special committee, the problem of stepping down the voltage is financial rather than mechanical. The cost of constructing the necessary transformers, and how to meet this expense is the big problem.

The cost of constructing these transformers would be a fixed charge, and would have to be met from funds received from the service. How this cost is to be distributed, particularly in communities where the number using the service would be continually changing, constitutes a problem all in itself, he said.

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In Illinois and Wisconsin, he said, the power companies extended their lines to the rural districts, and, for a time, supplied power to the rural communities at a loss. After the lines had been established, the companies suddenly demanded that their rates be increased to cover the cost of the service, with a result that the farmers became greatly dissatisfied with the system. The State Public Utilities Commission, according to Mr. Fagan, hopes to make sure that Michigan gets started on the right road in this work.

The men working on the project believe that farmers of the state

would be glad to obtain power from these transmission lines because of the greater convenience in comparison with the home generating plants now in use on many farms. Electricity, they believe, can be used to advantage in many farm operations, such as cutting wood, running milking machine, and chopping feed. It would also make possible the use of many conveniences about the farm home that cannot now be used.

The committee will also make every effort to devise a means of using the rural power lines to furnish electricity for lighting the rural highways as well as furnishing power and light on the farms. It is becoming more and more necessary that some means be found to make

the highways safe for night travel.

During the past two years an experiment in this work has been conducted on the road between Lansing and East Lansing through the co-operation of the Consumers Power Company, the Lansing Automobile Association, and the township authorities. Over a stretch of about two miles, lights are mounted on poles 30 feet high. The light from these makes the use of bright automobile headlights unnecessary. The lighting thus far has been very satisfactory, but of course, the project has been used only as an experiment.

In speaking of the work done by the special committee, which will report back to the Public Utilities Commission February 15, Dean Bissell said, "In our report we are to give a precise statement of the problem, and recommend principles to be followed in its solution. We shall obtain information about the practices followed in other states, ascertain the attitude of the producing companies, discover how much interest is manifested by the rural population in obtaining electrical service, and find out to what extent the manufacturers of farm machinery are prepared to furnish power-driven appliances suitable for use on the farm.

"I believe that after the present agricultural depression has passed, all progressive farmers will be glad to make use of electrical current if it can be had at reasonable rates. Of course the rates will differ in different parts of the state. Farmers in Wayne county will be able to get the service cheaper than those in outlying sections. But we hope that the rates can be made low enough to make electricity practical for all parts of the state."

A MEETING OF MICHIGAN BEAN INTERESTS

A MEETING of bean growers and others in Michigan interested in orderly marketing, advertising, and in other ways making the bean crop a more profitable one, will be held at the Owosso Armory, Owosso, beginning 10:30 A. M. Friday, January 18th. The meeting is being called by A. B. Cook, president of the Michigan Bean Growers Association, and will be held under the auspices of the Association. R. L. Churchill, secretary and manager of the California Lima Bean Growers Association, will be present and Michigan men representing all phases of the industry will be on the program. It is the interest of every bean grower in Michigan that he attend this meeting. Be there, without fail.

California Bean Man Urges Co-operative Marketing of Michigan's Crop

WE have noticed the editorial paragraph under the heading "Scalping Beans" in your issue of November 24th.

It has seemed strange to us for several years past, that a group of the largest bean growers in Michigan did not take active steps to organize for the cooperative marketing of the major portion of Michigan's production of pea beans. This has been more puzzling in recent years because of the very rapid development in the cooperative marketing on a large scale of such products as cotton and tobacco, which have been and are being supported by many thousands of growers, both large and small, scattered over a number of states. According to reliable governmental reports, the cooperative marketing of cotton, tobacco, rice and peanuts, has within the past two or three years, transformed the South from a condition of financial distress to one of the most prosperous sections of the United States.

We have written a number of letters during recent years to Mr. A. B. Cook, of Owosso, Mich., suggesting that some active steps be taken to organize the Michigan bean growers, not only for the benefit of your growers, but also because of the detriment to the bean business of the entire country caused by the erratic fluctuation of prices on Michigan beans, which tends to create a lack of confidence in the minds of the distributing trade with respect to all varieties of beans, and undoubtedly to a certain extent adversely affects the movement and price of all varieties.

THE plan to put on a nation-wide advertising campaign to increase consumption of pea beans created much interest in all parts of the country and the news of Michigan's failure to raise her share of the money was received with much regret. We recently received a letter from R. L. Churchill, secretary and manager of the California Lima Bean Growers Association, Oxnard, Calif., commenting on it. He did not write the letter for publication but it contained so much of interest to all growers that we urged we be permitted to print it. He finally consented and we are publishing it herewith.

With reference to advertising of beans, our Association has expended as much as \$45,000 annually in advertising lima and baby lima beans, although marketing only about half the California production of these two varieties, and not being engaged in marketing any other varieties. It is accordingly almost humorous to us that Michigan fell down on raising \$16,000 for National advertising of Michigan beans from all those interested.

However, it is undoubtedly true that growers much more than elevator men should be the ones to contribute towards the advertising of Michigan beans, particularly if growers will place themselves in position to really benefit by orderly and intelligent marketing, with resultant stabilization of the market.

As we understand the situation now existing in Michigan, there is so much manipulation and speculation existing, that the growers, most of the bean elevators, and the job-

bing and distributing trade, are all suffering from the uncertain and chaotic conditions obtaining. Undoubtedly many of the elevator men would welcome a strong growers organization, and there is no particular need or reason why growers should build new elevators or purchase any of those now operating, as they could undoubtedly arrange to continue to use cleaning and storage facilities now provided, and confine the activities of the growers cooperative marketing association to the marketing of their beans under grades and regulations established by their own organization. The present National and State laws favorable to such associations, and the facilities offered by recent revisions of Federal Reserve Bank laws and the continued services of the War Finance Corporation, permit cooperative marketing associations to very easily finance liberal advance payments to grower members and to carry out a sane and reasonable

marketing policy and price level in connection with distributing the sale and movement of the products over a period of eight or ten months, if desired.

In your editorial, you expressed the hope that someone will step forward ready to take on the task of organizing Michigan bean growers and handling their products, but you make a better suggestion when you urge some of the large growers to call a meeting to talk matters over and see if something cannot be started. Undoubtedly you realize that the interest taken by President Coolidge and Secretaries Hoover and Wallace in the problem of farmers, and recommending cooperative marketing, as one of the most practical means of securing assistance and relief, indicates more than a friendly attitude on the part of the Federal government, and we are confident that merely the asking would bring experts from the United States Bureau of Markets to assist in organizing your Michigan bean growers, as soon as sufficient interest was manifested.

Undoubtedly trained and experienced men connected with existing cooperative marketing associations of various farm products, including beans, could also be secured to assist your growers, to organize.

We have not written you this letter for publication, and are inclined to believe that it has not been properly written for publicity purposes; but we are much interested from the standpoint of the bean industry in the entire United States in seeing Michigan bean growers form a
(Continued on Page 22)

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the highways safe for night travel.

During the past two years an experiment in this work has been conducted on the road between Lansing and East Lansing through the cooperation of the Consumers Power Company, the Lansing Automobile Association, and the township authorities. Over a stretch of about two miles, lights are mounted on poles 30 feet high. The light from these makes the use of bright automobile headlights unnecessary. The lighting thus far has been very satisfactory, but of course, the project has been used only as an experiment.

In speaking of the work done by the special committee, which will report back to the Public Utilities Commission February 15, Dean Bissell said, "In our report we are to give a precise statement of the problem, and recommend principles to be followed in its solution. We shall obtain information about the practices followed in other states, ascertain the attitude of the producing companies, discover how much interest is manifested by the rural population in obtaining electrical service, and find out to what extent the manufacturers of farm machinery are prepared to furnish power-driven appliances suitable for use on the farm.

"I believe that after the present agricultural depression has passed, all progressive farmers will be glad to make use of electrical current if it can be had at reasonable rates. Of course the rates will differ in different parts of the state. Farmers in Wayne county will be able to get the service cheaper than those in outlying sections. But we hope that the rates can be made low enough to make electricity practical for all parts of the state."

A MEETING OF MICHIGAN BEAN INTERESTS

A MEETING of bean growers and others in Michigan interested in orderly marketing, advertising, and in other ways making the bean crop a more profitable one, will be held at the Owosso Armory, Owosso, beginning 10:30 A. M. Friday, January 18th. The meeting is being called by A. B. Cook, president of the Michigan Bean Growers Association, and will be held under the auspices of the Association, R. L. Churchill, secretary and manager of the California Lima Bean Growers Association, will be present and Michigan men representing all phases of the industry will be on the program. It is to the interest of every bean grower in Michigan that he attend this meeting. Be there, without fail.

California Bean Man Urges Co-operative Marketing of Michigan's Crop

WE have noticed the editorial paragraph under the heading "Scalping Beans" in your issue of November 24th.

It has seemed strange to us for several years past, that a group of the largest bean growers in Michigan did not take active steps to organize for the cooperative marketing of the major portion of Michigan's production of pea beans. This has been more puzzling in recent years because of the very rapid development in the cooperative marketing on a large scale of such products as cotton and tobacco, which have been and are being supported by many thousands of growers, both large and small, scattered over a number of states. According to reliable governmental reports, the co-operative marketing of cotton, tobacco, rice and peanuts, has within the past two or three years, transformed the South from a condition of financial distress to one of the most prosperous sections of the United States.

We have written a number of letters during recent years to Mr. A. B. Cook, of Owosso, Mich., suggesting that some active steps be taken to organize the Michigan bean growers, not only for the benefit of your growers, but also because of the detriment to the bean business of the entire country caused by the erratic fluctuation of prices on Michigan beans, which tends to create a lack of confidence in the minds of the distributing trade with respect to all varieties of beans, and undoubtedly to a certain extent adversely affects the movement and price of all varieties.

THE plan to put on a nation-wide advertising campaign to increase consumption of pea beans created much interest in all parts of the country and the news of Michigan's failure to raise her share of the money was received with much regret. We recently received a letter from R. L. Churchill, secretary and manager of the California Lima Bean Growers Association, Oxnard, Calif., commenting on it. He did not write the letter for publication but it contained so much of interest to all growers that we urged we be permitted to print it. He finally consented and we are publishing it herewith.

With reference to advertising of beans, our Association has expended as much as \$45,000 annually in advertising lima and baby lima beans, although marketing only about half the California production of these two varieties, and not being engaged in marketing any other varieties. It is accordingly almost humorous to us that Michigan fell down on raising \$16,000 for National advertising of Michigan beans from all those interested.

However, it is undoubtedly true that growers much more than elevator men should be the ones to contribute towards the advertising of Michigan beans, particularly if growers will place themselves in position to really benefit by orderly and intelligent marketing, with resultant stabilization of the market.

As we understand the situation now existing in Michigan, there is so much manipulation and speculation existing, that the growers, most of the bean elevators, and the job-

bing and distributing trade, are all suffering from the uncertain and chaotic conditions obtaining. Undoubtedly many of the elevator men would welcome a strong growers organization, and there is no particular need or reason why growers should build new elevators or purchase any of those now operating, as they could undoubtedly arrange to continue to use cleaning and storage facilities now provided, and confine the activities of the growers co-operative marketing association to the marketing of their beans under grades and regulations established by their own organization. The present National and State laws favorable to such associations, and the facilities offered by recent revisions of Federal Reserve Bank laws and the continued services of the War Finance Corporation, permit cooperative marketing associations to very easily finance liberal advance payments to grower members and to carry out a sane and reasonable

marketing policy and price level in connection with distributing the sale and movement of the products over a period of eight or ten months, if desired.

In your editorial, you expressed the hope that someone will step forward ready to take on the task of organizing Michigan bean growers and handling their products, but you make a better suggestion when you urge some of the large growers to call a meeting to talk matters over and see if something cannot be started. Undoubtedly you realize that the interest taken by President Coolidge and Secretaries Hoover and Wallace in the problem of farmers, and recommending cooperative marketing, as one of the most practical means of securing assistance and relief, indicates more than a friendly attitude on the part of the Federal government, and we are confident that merely the asking would bring experts from the United States Bureau of Markets to assist in organizing your Michigan bean growers, as soon as sufficient interest was manifested.

Undoubtedly trained and experienced men connected with existing cooperative marketing associations of various farm products, including beans, could also be secured to assist your growers, to organize.

We have not written you this letter for publication, and are inclined to believe that it has not been properly written for publicity purposes; but we are much interested from the standpoint of the bean industry in the entire United States in seeing Michigan bean growers form a

(Continued on Page 22)

What Will Beet Growers Get For 1923 Crop?

Authority Believes That Farmers Who Grew Sugar Beets the Past Season Will Make a Good Profit on Their Crop. Discusses Contract for 1924

By C. E. ACKERMAN

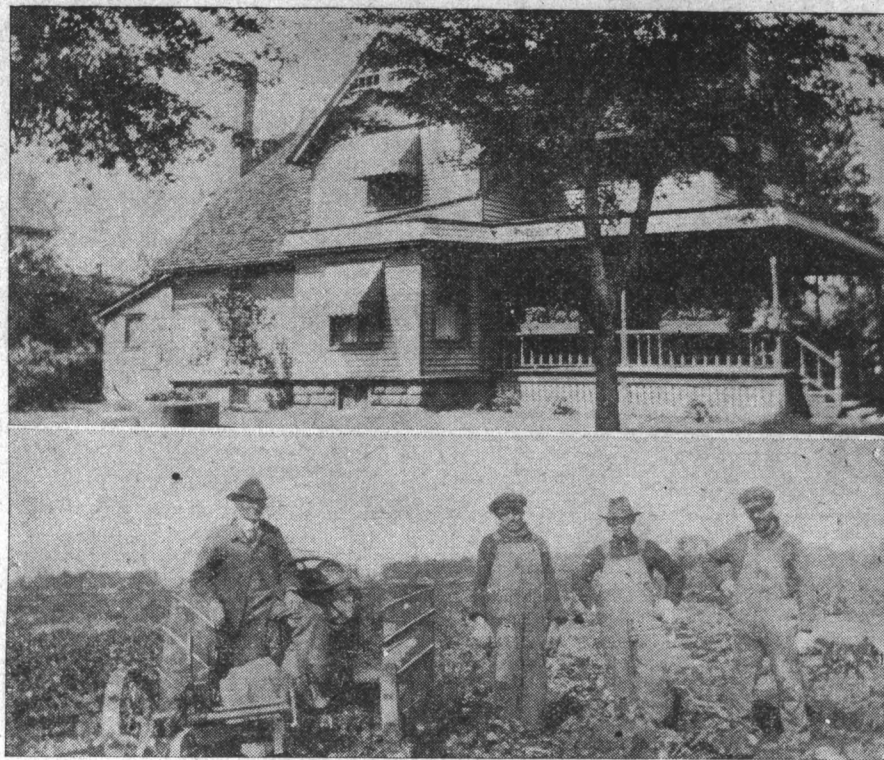
(Written Exclusively for The Business Farmer.)

WHEN the 15th of February, 1924, rolls around the beet growers of Michigan will have received full settlement with the 17 sugar factories of Michigan and then we will know how the beet deal came out. Since this year sees 3 different contracts, the 45-55 labor aid contract and the famous 50-50 contract, the final outcome of these contracts and the higher price of sugar with also an extraction thus far that is above the average, the proposition is more interesting than usual. On account of very little having been written about the Michigan sugar beet industry by the growers, I am induced to give a general review of the industry from the growers' standpoint for the past three seasons. During the latter part of the year 1920 the sugar industry came into its after the war readjustment. The three outstanding conditions of facts at that time were as follows: 1st, there were around one and a half million tons of unmarketable surplus sugar. 2nd, the refund market for sugar was \$4.60 per 100 pounds New York, and 3rd, the Federal Reserve Banks had curtailed all sugar loans. This indeed did make a gloomy outlook for the industry. Starting the New year, January 1st, 1921, the sugar factories came out with contracts offering \$5.50 per ton for beets and went through the year getting a little better than 50 per cent of an acreage in the United States and around 80,000 acres in Michigan. At the end of the year the factories came out with financial statements showing losses of over \$11,000,000.00. One Michigan factory even went so far as to get their financial statement showing over \$1,000,000 loss printed in the congressional record.

The grower not being able as usual to furnish figures showing his loss in dollars and cents, simply went broke and finally continued in the business as usual (a characteristic which applies to the farming business only). Although the after effects of this and other calamities the farmer has gone through at the same time is now being heard of down in Washington from political men with something to offer to help the farmer.

The beginning of the year 1922 saw a little improvement. Farmers got \$7.12 for their beets and the average price of sugar was around 6 cents per pound.

The factories could not make any money this year on account of the high coal, limestone and material costs and mainly on account of the



ABOVE: The home of C. E. Ackerman, Durand, Michigan, Mr. Ackerman's farm contains 350 acres and he had 40 acres of sugar beets in 1923.
BELOW: Mr. Ackerman is shown here using tractor and plow which has been remodeled into a beet plow. Three contract beet workers are shown with Mr. Ackerman.

fact that they could not run a full season of 100 days owing to the fact that the growers would not grow the beets on account of the high costs and the low price of beets and sugar and also on account of an unsettled dispute between the Michigan Sugar Beet Growers' Association and the factories. At the beginning of the year 1923, the industry seemed to be in a deplorable condition. Many large growers of beets had decided not to grow another beet. Sugar factories stock went down over two thirds on the market and it looked as if many factories would close up indefinitely, and to some it looked like losing their capital stock, they having depleted their large surpluses built up during the war. In fact, the business never did look darker for the factory and the farmer than at this time. Most growers had long since given up hopes of ever coming to any understanding

with the factories in regards to a better participating contract asked by the growers' organization, and the factory men were also a discouraged lot of fellows, although their training enabled them to not show it in their faces so plainly like the farmer does. In due time, the forepart of 1923, all the Michigan factories came out with their contracts which were along the old style and offering \$6.00 per ton for beets. Little headway was being made getting contracts and many farmers had dismissed the idea of ever growing beets again. Finally the Owosso Sugar Company broke away from the sugar manufacturing Association and came out with the long sought 50-50 contract, which gave the grower one-half of the average extraction of sugar per ton of beets, for the seasons run at the average New York price for the months of October, November, De-

cember and January, and also a 45-55 contract where the factory furnishes labor assistance. Shortly after this the association factories came out with a new contract offering \$7.00 per ton for beets and a little better sliding scale on the lower priced sugars. Then the Owosso company also came out with the \$7.00 contract making three contracts for them in the field at the same time. This seemed to stimulate the industry together with the fact that sugar began advancing in price. Farmers called meetings of their organizations advising growers to try out the new contracts with the result that the Owosso company secured a full acreage harvesting enough beets to run their two factories to capacity for a full run notwithstanding the fact that this summer was a very bad one on account of draught in many sections preventing the germination of the seed, many acres being lost thereby.

This year 109,400 acres were planted to sugar beets an increase of 28,000 acres over last year, and all factories sliced beets with the exception of one at Marine City. In the United States the acreage was increased over 120,000 acres and 89 of the 99 factories in the country sliced beets this year, and will turn out approximately 900,000 tons of sugar which is about one-fifth of what we consume. It might be stated here that in Michigan we produce less than one-sixth of one per cent of the sugar used in the world and less than enough to supply Michigan itself. Thus it can be seen that there is little danger of over production of sugar in the United States for some time to come.

It also will be of interest to the sugar beet grower to know that the present rise in prices is world wide and is not confined only to the United States as some would have us believe, and that the most casual examination of trade statistics will show the world supplies are less in 1923 than in 1922 by over 1,000,000 of tons and that the decrease is entirely in the western hemisphere or in those places from whence the United States and the United Kingdom get their sugar. I would like to pass a word to the Michigan farm housewife that it would not be a bad idea to lay in 4 or 5 hundred pounds of sugar for next summer and fall. It may go lower, but the writer doubts it, as to its going higher, time will tell. It however is evident that we are coming near and nearer to a sugar shortage which

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Baby Beef Plan Insures Good Cash Market For Michigan Herefords

WHEN Hereford cattle men of the United States dig into the records to find the oldest Hereford breeding establishment they immediately turn up in Michigan, for here it is where they find one of Michigan's leading farms in the breeding of Herefords, the result of sixty-three years of consistent breeding. It is the herd established by Governor H. H. Crapo, of Swartz Creek, Michigan, and now under the able supervision of young W. W. Crapo, of Detroit. The first

SO much interest has been shown in the baby beef marketing plan devised by T. F. B. Sotham, of Michigan Hereford cattle fame, that we secured this article, based on an interview with Mr. Sotham. There is much of interest to you in this article whether you are a breeder of Herefords or not.

cows of this herd were purchased through William H. Sotham, father of T. F. B. Sotham, of St. Clair Michigan.

Looking back into Hereford history, we find that in various parts of Michigan were located some of the noted herds of the seventies and eighties. There was Tom Foster, of Fostoria; Fairfield, of Bay City; Phelps, of Pontiac; Sotham, of Bloomfield Hills; Crapo, of Flint; and many others. The elapse into the nineties saw the breed migrate into the West where they have ruled on the plains ever since.

The call of the cheap pasture lands of the West and the rapid increase in value of eastern lands made the West appeal to the cattle men of the eighties and the market for beef cattle was transferred to the West, with the result that the drain on eastern Herefords at very satisfactory prices ended with a thorough thinning out of Herefords

in Michigan. Then the growth of the now great population centers adjacent to Michigan led to a great increase in the production of dairy products and helped cause a decline in beef-cattle demand in Michigan.

And now that the cheap pasture of the West has reached prices that make eastern lands compare favorably when beef cattle production is concerned, it is only fitting that Michigan lands should present the best opportunities for beef production. It is the contention of T. F. B. Sotham that two acres of \$100 Michigan land will keep a cow; in the West in the great ranching sections it takes from five to twenty acres and sometimes more to keep a cow. Such land ranges from \$5 to \$20 an acre. Thus you have the same amount of interest to pay on land investment. Land in the West that takes less than this to keep a cow is equally higher in price, while in Michigan there is a good deal of

land that two acres will keep a cow at a much lower figure than the above \$100 per acre. Then again it is the contention of Mr. Sotham that Michigan, with her spacious barns thus comfortably housing her cattle in the winter eliminates the terrific mortality loss as a result of cattle being outdoors all winter.

As a result of Mr. Sotham's experience with Hereford cattle on the ranges in this country as well as in Argentina, South America, on the

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THOMAS FREDERICK BEAUBAIS SOTHAM



WILLIAM HENRY SOTHAM

PICTURES FROM FAR AND NEAR



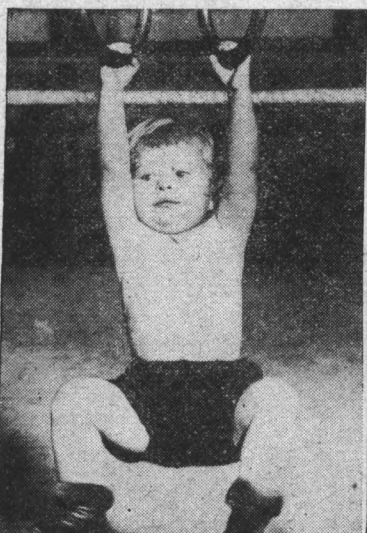
RUTH ENJOYS FARM LIFE.—Here are "Babe" and Mrs. Ruth, with one of their Guernsey cows and her calf, on their farm at Sudbury, Mass. "Babe" says he is "as fit as a fiddle" and intends to continue to break home run records during the coming season.



ARTISTS SAY SHE IS MOST BEAUTIFUL ENGLISHWOMAN.—Mrs. F. A. Baldwin is the wife of Squadron Leader F. A. Baldwin, of London, England. This is the latest picture of the London beauty to reach this country.



UNITED IN BRILLIANT ROYAL CEREMONY. The Crown Prince of Sweden and Lady Louise Mountbatten, just after their marriage in London. They are the future rulers of Sweden. Their marriage unites that country with England.



THE WORLD'S STRONGEST "STRONG MAN."—John Salvatore, 22 months old, of St. Paul, Minnesota, can chin himself 15 times. He spends a half hour each day in gym work and is said to have never been sick one day.



STATE PRIZE WINNERS IN HOME ECONOMICS.—Each of the above girls proved herself to be the best in home economics in boys and girls club work during 1923 and represented her state at the International Congress of Boys and Girls Clubs, held at Chicago. The girls visited Montgomery Ward and Company where this picture was taken. Michigan's champion, Miss Ilda Meitzner, Utica, is shown in the insert in the lower, left-hand corner of the picture. She also appears in the group, second row from the rear.



A BULL'S EYE EVERY SHOT.—Mrs. Gus Knight of Upland, California, who has won the title of champion woman trap shooter of the Pacific coast. She hits the clay pigeons with alarming regularity and few men care to compete with her.



GRAND CHAMPION OF 1923 INTERNATIONAL.—Broadus White Socks, senior yearling Aberdeen-Angus, was declared the king of cattledom by Judge William Read, of London, England. The judge is standing in the background. This fine animal was purchased by the Sears-Roebuck Agricultural Foundation to whom we are indebted for this photo.



BRILLIANT STUDENTS AT U. S. COLLEGE.—Left to right: Margaret Hsieh and Grace Li, both students at Wellesley college. Miss Li is the daughter of a former president of China and Miss Hsieh is a famous Chinese writer, who is well known despite her youth.



WHAT'S A COUPLE OF FORDS TO ANGELO.—Angelo Taramaschi, Italian wrestler, demonstrating before a large crowd in Boston, Mass., how he can hold two cars pulling in opposite directions. Many were afraid that there would be two Angelos where only one bloomed before, but he showed up the Lizzies at the demonstration.



DICTATOR FOR A DAY.—Here is Adolf Hitler, one-time leader of the Bavarian Royalist army, who became dictator of Germany for one day. Photo shows him conferring with one of his officers shortly before his downfall.



FAMOUS SCULPTOR MODELS LLOYD GEORGE.—P. Bryant Baker, well known English sculptor, with the bust of Lloyd George he modeled. The subject never sat for the bust, the sculptor studying him while he was in action.



STIRS PARIS WITH HIS GENIUS.—Little Pietro Mazzini, five and one-half years old, whose mastery of the piano has made him the sensation of Paris. He is declared one of the most brilliant child pianists of the age.

VOTING FOR OVERSEER OF HIGHWAYS

I have been a devout reader of the M. B. F. for a good many years. It's good. Every citizen of Michigan ought to read it. Your Service Bureau is especially valuable. Please answer through this department this simple question. Has an elector of a township in this state, who resides in one road district and has also taxable property in the other road district of the same township, a right to vote for an overseer of highways in each road district where he has taxable property, or can he only vote for the one overseer in the district where the elector resides, regardless of how much taxable property he may own in the other road districts of the same townships?—W. F. B., Hillman, Michigan.

—In defining the eligibility of electors to vote for highway overseer in any road district, the statute provides that he must be a resident of road district, or an elector of the township, having taxable property in such road district. It does not require that he be both, but that he be either one or the other. If you own taxable property in one road district you may vote there for overseer, altho you may live in another. You may also vote in the one in which you are a resident, provided, however, that in both cases, that you are a qualified elector in the township. The statute does not limit the number of road districts in which any one person may vote, so you would be eligible to vote in each district in which you have taxable property.

This statute justly gives to those, whose property helps bear the burden of maintaining the highways, a voice in choosing the person who shall have charge of their maintenance.—Asst. Legal Editor.

LIABLE FOR ALL DEBTS

If a man signs notes and bonds with a person and the man he signs with goes to the wall could the signer fix his property so his creditors could not get it. Could he give or deed it to his wife or mother, or could a person mortgage for all he is worth? Will a joint deed hold good? Can an unmarried man hold the same amount of property as a married man with family? Will a joint deed held between mother and son be the same as man and wife? Is there any law against a man trying to defraud his creditors.—Mr. M., Carson, Mich.

—An individual's interest in property held under a joint deed is subject to levy on execution for the payment of his debts. Any transfer of property by a debtor for the purpose of defrauding his creditors is unlawful, and such a transfer could be set aside. A homestead is exempt from the payment of debts in most cases.—Asst. Legal Editor.

DISTANCE TO THE SUN

Dear Editor:—Will you be so kind as to answer through the columns of your esteemed paper the distance in miles of our earth from our sun; also the distance between our earth and moon; also the relative distance between the sun and moon at new moon and full moon.—C. C., T., Sand Lake, Michigan.

—The revolution of the earth around the sun once a year is not in an exact circle but rather an ellipse and the sun is to one side of the center of this ellipse. The earth reached its farthest point from the sun on this irregular orbit last July 5th when it was about ninety-four and a half million miles distant; the earth's nearest approach to the sun will be next New Year's day—about ninety-one and a half million miles distant. From an astronomical standpoint this three million miles difference between the nearest and farthest point to the sun is very small and astronomers roughly call the distance ninety-three million miles, which is the average distance of the two extremes.

The average distance of the moon from the earth is given as 238,840 miles but as the orbit of our satellite is also in the form of an ellipse with the earth at one side of the exact center, the distance varies from 221,617 miles, as it will be on December 6th, to 252,973 miles, as it will be on December 19th.

The relative distance between the sun and moon at new and full moon varies with the season. By using average figures, however, we learn



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.)

the difference in miles to be a little short of a half million. That is, the moon is a half million miles nearer the sun at new moon than at full moon; a mere trifle, so to speak, since this figure is only about the 180th part of the whole distance between the sun and earth. The least possible distance between the sun and moon is about ninety-one million six hundred thousand miles.—Pritchard's Weather Forecast.

RECOVER DAMAGES

Will you please advise me what would be the proper thing for me to do in this case. I bought a Jersey bull calf, age 18 months. The bull was sold to me as a sire to be all right in every way. He seems to be perfectly healthy but is not a sire as I have had to take my cows to a sire ever since I have owned this bull, which has been better than six months. I went to the man I bought him from, stated the facts to him as they are and asked for an adjustment, either a bull that is a sire or my money refunded as this calf is no good to me as he is now. He said he could not understand it and up to date has made no effort to make the matter right. Now as I feel that I am entitled to an adjustment I would like your advice before I go to him again. Since my deal I have learned that this calf is not the first one sold here in the neighborhood by this breeder that has proved out this same way.—W. H. L., Belding, Michigan.

—If the seller sold you the calf as a sire, when in fact it was not a sire, you could recover from him such damages as you have suffered in an action on an implied warranty.—Asst. Legal Editor.

ASSESSING FOR COUNTY DRAIN

Please advise me in regards to County Drain. About ten years ago the county drain was dug. Several farms surface water drained into this ditch at about the middle. Though this ditch does not come within a half a mile we were assessed several hundred dollars special

drain tax. We understand they assessed us a certain per cent of the entire cost of the ditch. Can they assess us for the entire cost of the ditch or for just that portion where our surface water enters their drain to the outlet?—G. D. S., Fremont, Michigan.

—In reply you are advised that property benefitted by the construction of the drain should be assessed a certain percentage of the entire cost of construction.—H. Victor Spike, Assistant Attorney General.

FAILED TO NOTIFY INDORSER OF NOTE

Will you kindly advise me on this matter? A gives note to B, it being endorsed by C.—A does not pay. Note was due three months ago, but B did not notify C. Now must C pay the note? Thanking you in advance.—F. G., Charlevoix, Mich.

—B's failure to notify C, the indorser, of A's non-payment would discharge C, unless notice of non-payment was waived.—Asst. Legal Editor.

HOW TO PLANT RAMBLER ROSE BUSH

How should a rambler rose bush be planted, with rich manure around it or none at all? Should it be kept dry or moist?—Mrs. A. O., Carsonville, Michigan.

—While the ground cannot be too rich, the roses should not be planted in manure alone. The best land for growing Crimson Rambler roses is good wheat land. The plants should be thoroughly watered after planting, especially if it is in a dry time.—Thos. Gunson, Professor of Horticulture, M. A. C.

PAY TAXES UNDER PROTEST

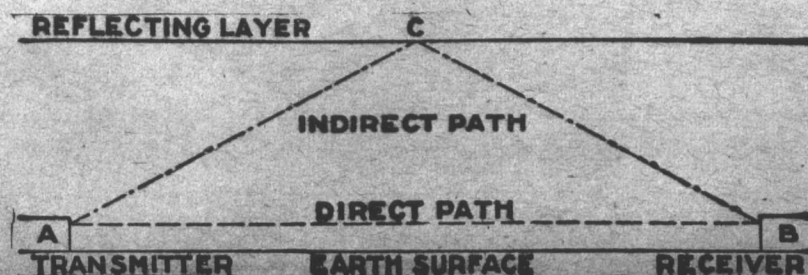
What proceeding will have to be taken after the board of review of the township have refused to comply with the law of the state governing exemption from taxes of 80 acres of stump land? Applicant has complied with the law, but the board refused to act on it, claiming it would make other peoples' taxes higher,

RADIO DEPARTMENT

WHAT CAUSES FADING

MANY of us have experienced a feeling of great disgust when listening to a good concert from a broadcasting station to have the music gradually die out. This usually happens at the most interesting part, for instance, when a distant station is just about to sign off. Frequently the regularity with which the signals die out at the crucial point leads one to think that something has control of this phenomenon and is using this control with diabolical intent.

The periodical dying out of radio signals is known as fading. There have been many attempts to make measurements on radio transmissions to determine the exact cause of fading but few of these measurements have produced any worthwhile data. The best explanation of fading seems to be a theoretical one. It is believed that at a height of thirty or forty miles above the surface of the earth that the air becomes so rarefied that it becomes a conductor of electricity. As such it acts like a reflector of the electromagnetic waves by which radio communication is effected. The result is that the waves reach the receiving antenna not by one definite path but by a number of paths of different length. To make this clear I think we had best have a diagram.



"A" represents a radio transmitting station sending out electromagnetic waves which radiate in all directions. Some of them go directly to the receiving station "B" while others go by an indirect route up to the conducting layer and then down again. If the difference in length of these two paths is right, that is, a multiple of the wave length, the waves will add and the effect produced will be greater than by direct transmission alone. But the difference in length may also be such that the waves do not add and thus the effect may be less than it would be by direct transmission. The reflecting layer is constantly shifting so that the reflection varies momentarily between the limits described resulting in varying intensity of the signal received. This the fading.

This simple explanation of fading leads to several interesting things. The reflecting layer is very definite during the day. Hence there is less fading during the day and this seems to be the case. On account of the lack of reflection, the range of a station is much less during the day than at night and this we all know to be the case. It would also appear that it is impossible to send radio signals away from the earth.—By Roger H. Bryant, Radio Engineer, Westinghouse Electric & Manufacturing Co.

etc. The law has been strictly complied with so far, as far as the applicant is concerned. I was elected Justice of the Peace at our last election, and have been consulted in this matter. I would like to have your opinion and advice.—C. K., Ashley, Michigan.

—The party aggrieved by the decision of the board of review may apply to the Michigan State Tax Commission at Lansing, asking that body to review the action of the board of review. The owner of land illegally assessed may pay the taxes under protest and bring action against the township for the recovery of taxes so protested.—Asst. Legal Editor.

ONE PHONE HAS STRONGER GENERATOR THAN OTHERS

We have a telephone line here at Brohman. Get service through the Michigan Telephone Company at White Cloud. I would like to know for the benefit of the community here if a telephone is put on the line that has a stronger generator than the rest of the phones, will that have any effect on the other phones to prevent them from getting central? C. R., Brohman, Michigan.

—Ordinarily the subscriber on a rural line installs a telephone with higher resistance fingers than those contained in the other sets on the line, penalizes himself more than the others on the line because the other telephones having lower resistance ringer coils will consume most of the ringing current sent out from headquarters, and he will have difficulty getting his signals. This is true whether the telephones are bridged on a metallic line or bridged on a ground line to earth.

There should be no difficulty experienced by the other parties on the line for getting Central, if some one party had installed a high resistance set, unless there should have been trouble on the set so that the generator remains bridged across the line at all times. Such a condition would be almost the equivalent of a short circuit. The condition you described in your question would more often happen on the case of a new set being installed that had extremely low resistance ringer coils, which likewise would have the effect of a short circuit on the line.—A. R. Sawyer, Prof. of Electrical Engineering, M. A. C.

MIX-UP IN ACCOUNT

May I call for your help, as I'm in trouble with out local lumberman? I let an account run with him when building, and have since settled with him by paying off as much as possible at different times. I received a receipt each time and kept them but he always refused to give me a statement, stating he was too busy to make one out, and he never puts the price of each article on the slips, only the total. I settled with him in full last year, and dealt with him again several months ago, and now when I asked to settle with him a month ago he asked for over \$70.00 more than he had coming. I then showed him my receipts and found he was mistaken, in fact, no mistake but swindle. I had lost one receipt of \$22.40 so he still thinks he has this coming, at least. Can you please tell me whether I owe him this when he refuses to state the price of each article on his slips, and also refuses to make out statements?—E. L., Pt. Hope, Mich.

—If you have settled the old account with the lumberman, he could not include in the new account, items of the old one. I would insist on having an itemized statement of the account before paying it.—Asst. Legal Editor.

MUST FIGHT FIRE

Can a state fire warden compel a man to fight fire? Last spring a fire warden ordered me and some of my neighbors out to fight fire. We put in a whole day, and never got our pay. I don't care so much for the days work, but it puts one out a lot that time of the year.—G. T., South Branch, Michigan.

—Deputy fire wardens are authorized to impress any able-bodied men into the service of fighting fires when it is necessary to do so. The law provides that the services of such men shall be paid for at the rate of \$2.00 per day.—John Baird, Director, Dept. of Conservation.

SUBSCRIPTION ORDER NO. _____

FROM

The Michigan
BUSINESS FARMER

Mount Clemens

To _____

Send _____

To _____

_____ For _____ Year
(NEW) (RENEWAL) (DON'T KNOW)

Date _____ Key _____

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How Banks Operate Under the Farm Loan Act

Farmers Who Wish to Purchase Land Can Secure Long Time Loans From These Banks

By JOHN H. KRAFFT

THE Federal Farm Loan Act was not emergency legislation. Congress proceeded with great care, after a most careful and thorough study of the entire fields of rural credits. No legislation in the history of this country received more careful consideration. It was the first successful effort in the United States to organize farm credit and to provide financial machinery, and instruments of credit by which agriculture may go into the money markets of the world and obtain adequate funds at rates of interest it can afford to pay and upon terms adapted to the peculiar character of farming operations.

The Federal Farm Loan Act, establishing the Federal Farm Loan System under which both Federal Land Banks and Joint Stock Land Banks operate, is a system of finance borrowed from Europe. This system has been adapted to American conditions. It was developed in Europe through more than one hundred and fifty years of experience. There were several Commissions sent to Europe by the United States to study agricultural financing in the various European countries. These Commissions came back with a report to Congress and recommendations upon which the Federal Farm Loan Act was based.

The Act provided for a dual system of banking consisting of Federal Land Banks and Joint Stock Land Banks. It created a Federal Farm Loan Bureau, part of the United States Treasury Department, and made provision for the appointment of a Federal Farm Loan Board which has supervision over the banks operating under this System. It divided the United States into twelve Federal Land Bank Districts and established in each one of these Districts a Federal Land Bank, and also provided for the chartering by the Federal Farm Loan Board of Joint Stock Land Banks. These banks can operate in not more than two states.

Under this Act the farmer is permitted to choose between two different types of banks authorized by the United States Government to make long term amortized loans. To borrow from a Federal Land Bank the borrower joins a local National Farm Loan Association. These National Farm Loan Associations are the agencies through which the Federal Land Bank loans its funds. The borrower from a Federal Land Bank takes 5 per cent of his loan in capital stock in the local Association and has a double liability on this stock. The local Association in turn owns this amount of stock in the Federal Land Bank. The Federal Land Bank holds this stock as collateral against the loans of all of the borrowers in the association.

A borrower from a Joint Stock Land Bank makes his application directly to the Joint Stock Land Bank or through a local bank representing the Joint Stock Land Bank. He does not make and stock investment in the bank.

Both Joint Stock Land Banks and Federal Land Banks are limited by law to an interest rate not to exceed 6 per cent. Both are limited to a profit of 1 per cent—the difference between the interest rate and the bond rate. Out of this margin of 1 per cent the bank must pay all operating expenses, salaries, rent, heat, light and other incidentals. Joint Stock Land Banks are limited to make loans not to exceed fifteen times their capital, which gives them a maximum gross profit of 15 per cent. Federal Land Banks are allowed to loan twenty times their capital, which gives them a maximum gross of 20 per cent. Out of these profits, of course, comes the cost of management. These banks do not charge any commissions for making loans. The Federal Land Bank is permitted to make a charge for the cost of appraising the land by a Federal appraiser and the cost of examining the Abstract by the banks' attorney. In addition to this the local Association is permitted to make a charge sufficient to carry on the work of the Association and to

THIS is the fourth and concluding article of the series prepared by Mr. Krafft, that has been appearing in THE BUSINESS FARMER. Mr. Krafft here discusses the Federal Farm Loan Act and how it makes it possible for a farmer to secure a long time loan.

pay the salary of the Secretary of the Association. A Joint Stock Land Bank is only allowed to make a charge for the actual cost of examining the land by the Federal appraiser and the cost of examining the Abstract by its Attorneys. They are not allowed to charge any commissions, neither are their correspondents allowed to charge any commissions.

Both Joint Stock Land Banks and Federal Land Banks are subject to semi-annual examinations by the Federal Farm Loan Board. Borrowers in both Joint Stock Land Banks and Federal Land Banks enjoy the same protection. Both types of banks are limited to loans not to exceed 50 per cent of the value of the land alone, plus 20 per cent of the amount insurable buildings add to the land to make the total value of the farm. The funds must be used for agricultural purposes or to take up an existing encumbrance originally created for such purposes. Federal Land Banks are limited to loans not to exceed \$25,000 to one individual and to borrowers who actually live on and operate the farm. Joint Stock Land Banks are limited to loans not to exceed fifteen per cent of their capital and in no case to exceed \$50,000, but are not restricted to borrowers who actually live on the land just so the funds are used for agricultural purposes.

The purpose of this dual system of banking was to give the farmer the choice of joining a cooperative institution and making a loan through the National Farm Loan Association from the Federal Land Bank and purchasing 5 per cent of his borrowings in stock in the Local Farm Loan Association, or of making his loan directly through a Joint Stock Land Bank without this stock investment. No loans are made either by Federal Land Banks or Joint Stock Land Banks to speculators or on questionable security or to borrowers of questionable personal standing. It is necessary in each case that the borrower has a reputation of meeting his obligations promptly and that he owns

good and well managed security. The rates of interest in any type of a loan is based very much upon the type of security offered, therefore, Congress found it necessary to place restrictions in order to obtain adequate funds for the farmers through these banks.

After the loans have been made by these banks they are sent to Washington for final approval by the Federal Farm Loan Board. When approved by the Board, they are used as collateral with the Registrar of the District and bonds issued against these loans. These bonds are sold on the open market and the sale of the bonds is very much dependent upon sound judgment in selecting the security guaranteeing the bonds—in other words—by inspiring confidence into the bond buyer. The Government makes a guarantee to every bond buyer of either Federal Land Bank or Joint Stock Land Bank bonds that the security on these bonds consists of farm mortgages where the funds have been used for agricultural purposes and that no loan exceeds 50 per cent of the actual value of the land, plus 20 per cent of the amount insurable buildings added to the land to make the total value of the farm. In order to make good on this guarantee to bond buyer, the Federal Farm Loan Board appoints Government Land Appraisers. These appraisers are assigned to the various banks and must make an inspection of all loans and approve the loans before the bank can pay out the funds. It has been argued by some people that the amount these banks are allowed to loan under the Act should be increased. If these banks were allowed to make larger loans the result would be that the interest rate would be increased proportionately and while this would help a small percentage of the farmers, the fact remains that the limitations as they stand give most of the farmers the opportunity of making their loan through this System and of enjoying the benefits of the System. The restrictions, as they stand, operate to the decided

advantage of the desirable borrower with good security.

In order to obtain a loan from the Federal Land Bank, the applicant makes application to the Secretary of National Farm Loan Association and to obtain a loan from a Joint Stock Land Bank, makes his application direct to a Joint Stock Land Bank or through a local bank representing the Joint Stock Land Bank. The applicant fills out an application form and swears to it before a Notary Public. Within a short time the land is appraised by the local committee in case the application is made to a Federal Land Bank and if approved by the local committee the application is sent to the Federal Land Bank and a Government appraiser re-inspects the security. In a loan from a Joint Stock Land Bank the appraisal is made only by the Federal appraiser, unless the Bank has an appraisal made by their local correspondent which Joint Stock Land Banks always do. If the loan is approved by the appraiser and also by the Bank the applicant is asked to deliver a completed Abstract brought down to date which must show a fee simple title in the name of the borrower. The procedure then necessary is the same as in any other farm loan, other than the fact that the loan must be made on the amortization plan and the farm must be inspected by a Government inspector and the title approved by an Attorney appointed by the Government.

By "amortization" is meant a contract under which a small payment per thousand of the loan in addition to the interest is paid off every year, and the loan matures in a given number of years. The banks operating under the Federal Farm Loan System are allowed to make loans running from five to forty years, however, most of these banks are making loans for a period of thirty-three years. The borrower, however, has the option of paying off after five years. This gives him a loan which runs at his option for from five to thirty-three years. Assuming that the interest rate on a loan is 6 per cent and a borrower obtains a loan from one of these banks for \$10,000, a payment of \$350.00 semi-annually will pay interest and entire principal in a little less than thirty-three years, as loan never falls due at any one time. You may ask how you can pay off this loan in thirty-three years by paying 1 per cent of the principal annually. If you should deposit \$50.00 semi-annually at 6 per cent compound interest, it would amount to \$10,000 in a little less than thirty-three years. The depositor would have paid in only \$3,300, but the compound interest would, in that time, amount to \$6,700. That is the plan on which these loans are made and paid, except that instead of making a deposit of \$50.00 the borrower pays the same on the principal in his note. If the note is paid before maturity he only pays the unpaid balance. The borrower does not get something for nothing, he pays at the rate of \$70.00 per annum on \$1,000 borrowed from which is deducted interest at the rate of 6 per cent on the unpaid principal and the balance applied on the debt, but he never has any renewals with incidental expense. No one can disturb him in the possession of his land, nor demand further payments than that. The loan, in fact, never falls due in a lump sum but is gradually amortized or paid off by the regular semi-annual installments. The borrower has the privilege of paying \$100 or any multiple thereof on the principal on any interest paying date after five years. The contract which the borrower signs runs for a period of from five to thirty-three years at his option. It has been the policy of Land Banks to allow payment of the loan before five years if there was some sound reason for this, however, when this privilege is granted there is a charge made for it.

Land Banks do not make loans on undivided interests or anything less than an absolute fee simple title. (Continued on Page 29)

Piconning Farmers are on the Right Track

READERS of the agricultural press have read much during the past year about the wonderful dairy development which has taken place in Arenac county. If the folks in northern Bay county have their way, they will also be included in those accounts, because they are preparing to follow the lead of their neighbor county to the north, and go much further.

Learning by close association and observation what active co-operation between farmer and business man has done in Arenac county toward greater prosperity by developing the dairy business, the Board of Commerce and the Grange at Piconning are planning a similar project in their community. This desire has been accentuated by the advent of a new up-to-date milk plant at Piconning, owned by Mr. Tom Halpin who has had a great deal of experience with the manufacture of dairy products. This assures the producer of an excellent market for his milk and cream.

Various agencies, including the Michigan Agricultural College, the N. E. Michigan Development Bureau, and the Agricultural Department of the M. C. R. R., are being enlisted in this work. A series of educational meetings will be held during the winter at which authorities on dairying will be invited to speak.

One of the first steps taken was on arrangement with the Agricultural Department of the M. C. R. R. for the leasing without charge of three purebred Holstein sires to three groups of Farmers. These animals have been delivered to their caretakers. Not only does this impress the farmers with the worth of a purebred sire but it also provides high-class breeding for about 30 farmers. Since all three of these animals are out of dams that made over 24 pounds of butters in seven days, and two of them are out of sires whose dams produced over 31 pounds of butter in seven days, it is very reasonable to suppose that these sires will be of great benefit in raising the standard of the livestock in the neighborhood of Piconning. The fact that several purebreds have been purchased since by the neighbors would indicate that the object-lesson is not being missed.

Northern Bay county is ideally adapted dairying according to Mr. Halpin, owner of the new creamery. He says that he looked around for four months for a suitable location and that he thinks he has found it in Piconning. He feels that wonderful developments will take place in dairying in that community in the next few years, and that all will prosper because of it.—E. J. Leenhouts.

Does Your Son Want to Become a Veterinarian?

Promising Future For Young Farmer Boys Who Study Veterinary Science to Fit Themselves to Guard the Health of Our Farm Animals

By WARD GILTNER

Dean of Veterinary Medicine, Michigan Agricultural College
(Written Exclusively for The Business Farmer)

SYSTEMS of agriculture differ in different lands. In America it rests substantially upon animal industry, and American agriculture with all its defects and unsatisfying features, is, all things considered, the greatest, the most efficient and the most satisfying system of agriculture that the world has known. It is a fairly safe assumption that the relationship of animal industry to the success of American agriculture is one of cause and effect. A weakening of animal industry in America means a serious weakening of agriculture; a change in the system of agriculture involving the reduction of animal industry to a lesser role means a less satisfying system.

The maintenance of a successful animal industry does not depend on following a simple formula. I do not know that we are interested at the present time in a program of increased live stock production but it seems to me that the same method for achieving such an end might be used to bring about a more profitable animal industry. After reviewing all the possible ways whereby there might be an increase in our available meat food supply former Secretary of Agriculture Houston said: "But an easier and more definite program for a large increase in the meat supply involves the eradication of the cattle tick, of tuberculosis and of hog cholera, and the prompt suppression of such diseases as the foot and mouth disease."

Is it not a fact that the maintenance of the health of live stock is the most logical and the more certain way both to increase and economically to foster animal industry? Human experience has developed a method and means to accomplish this desirable end and that is through veterinary science. Science applied to the solution of the problems of animal industry has made possible the proud position of American agriculture. The veterinarian in American is called upon to protect the horses and mules of the Army through the medium of a well organized and competently manned veterinary corps. A veterinarian heads the Bureau of Animal Industry of the U. S. Department of Agriculture and is aided by the largest well trained body of veterinarians (about 1500) in the world. It is the service of these men that protects the country against entrance of foreign animal plagues, such as cattle plague and foot and mouth disease, or eradicates the disease before it makes headway if it gains entrance into the country. Accurate knowledge backed by good judgment is required in such work. Investigations into the nature of disease must be in progress constantly. The veterinarians of the Bureau are also required to assist the various state veterinary boards and commissions to eradicate or suppress such diseases as Texas fever of cattle, dourine of horses, tuberculosis of cattle and swine, hog cholera, scab of sheep, cattle and horses and many other diseases constantly menacing the health of domesticated animals. It is the function of these men also to inspect the meat that is slaughtered in establishments that engage in export or interstate trade, thus protecting the health of the people.

The various states must maintain an adequate corps of trained veterinarians whose honor and integrity are unquestioned and whose professional training is on a par with that required by the learned professions. Municipalities demand the services of veterinarians in the capacity of meat and milk inspectors

and to protect the health of animals in the various city departments. Many large private establishments employ veterinarians to attend their valuable live stock possessions. The great English race horse, Papyrus, was attended by a veterinarian on his recent visit to this side of the Atlantic.

Big Field Is Private Practice

Of course the great field for the veterinarian is private practice. The farmer must expect more from well trained, high principled veterinary practitioners than from any other source in his efforts to ward off disease from his horses, cattle, swine, sheep and poultry. To this list of animals must be added pets, such

students in veterinary colleges in America. There were 22 of these schools, 12 privates and 10 state. Today there are 12 state schools and one private school which has no freshmen class, an indication of early cessation of activities. These schools have less than 600 students enrolled. It is estimated that over 500 veterinarians leave the profession every year because of death, disability or from other causes. In other words nearly as many are lost each year as are now enrolled in all the schools, and the schools release by graduation less than one-fourth of their total number of registrants each year. In 1914 the average attendance in our veteri-



WARD GILTNER

of America's animal husbandry as there were before the war. The disastrous effects of this situation will not be felt for four or five years, but it is certain that within a few years we will suffer from the lack of properly trained young men to look after veterinary practice, meat and milk inspection, animal disease eradication and other aspects of veterinary service."—Prof. Ward Giltner, Dean of Veterinary Medicine, M. A. C.

as dogs, cats and others, in which the city dweller has an equal interest, and fur bearing animals, especially the fox, now demanding expert veterinary service because of the effects of domestication on their health.

A lessening in the number and value of farm animals is neither permissible nor possible if we are to maintain our standards of living, except in case of the horse which may be partly, and only partly, replaced by the tractor, truck and automobile. Space and time will not permit of a discussion in this article of the relative merits of draft animals and the internal combustion engine as farm power, nor of the possibility of substitutes for the domesticated animals upon which we depend for food, clothing and other useful things. For those who are alarmed by false predictions of an animal-less age we submit some cold statistical facts. Comparing the figures of 1910 with those of 1920 for numbers and values of live stock we find no cause for alarm.

Now what about the statistics side so far as the veterinarian is concerned. In 1910 there were 199,000,000 animals on the American farms with a value of \$5,274,000,000 or 17,000 valued at \$413,000 for each veterinary practitioner. In 1920 there were 215,000,000 farm animals worth \$8,556,000,000, that is 24,634 having a value of \$912,000 for each practitioner. This is the way Dean Moore of Cornell figures it out. These figures do not include poultry or pets.

In 1916 there were about 3,000

"AMERICAN agriculture depends on animal husbandry, the success of which depends upon the health of farm animals. The health of farm animals can be maintained only by adequate veterinary service. The number of students in veterinary colleges has fallen from about 3,000 to about 500. About half the schools have closed; one school closed in November; another has no freshmen and will probably close soon. So far as the closing of these schools is concerned it seems a fortunate circumstance that they are all private enterprises. Veterinary education is a matter of public concern and must be supported by the public, and it is a serious matter that there are only about one-sixth as many students preparing themselves to become care-takers

any colleges was 120, now it is 52 (ranging from 16 to 90).

There is far less interest in veterinary education in America than there is in European countries. France is training more men to combat animal disease than is the United States while our animal industry is valued at an incomparably higher figure than is the French. Compare the following figures for France and the United States for 1921:

France: 13,343,000 cattle; 5,166,000 swine; 9,600,000 sheep; 2,892,000 horses and mules. United States: 41,923,000 cattle; 63,000,000 swine; 37,209,000 sheep; 18,853,000 horses and mules.

We have three times as many cattle, twelve times as many swine, four times as many sheep and nearly seven times as many draft animals as has France. Our Federal government is not spending a dollar on veterinary education while some of the smallest European countries, no more important than some of our states, are spending about as much as all our states combined.

An explanation of the situation is not so easy. In the first place the veterinarian in America has not occupied the lofty position in the public eye filled by the European veterinarian. This is largely a matter of circumstance. Ours is a new country, hewn out of the wilderness only recently. Our agriculture has owed more to our natural resources and to the sturdy character and indomitable will of the pioneer than to a refinement of skill and traditional practice or

specific education. The veterinarian was as rough and ready as the pioneer farmer. The designation "horse doctor" was more or less accurate in its descriptive quality. Veterinary education, like all technical and professional education in America was pitched on no higher plane than conditions demanded. With the development of agriculture and agricultural education and their consequent problems, veterinary practice and education have developed—it is no vain boast to say that they have kept apace and it is with pride that both the agriculturist and veterinarian can justly boast of the rapidity of the pace.

Students of Better Class

Today the veterinarian is educated largely at the expense of the state in well—not too well or well enough—equipped and properly manned colleges usually associated with agricultural colleges. The training of the veterinarian is thorough, intensive and extensive. The methods are scientific and effective. The personnel of the profession is becoming high class—consisting of men of character, personality, high ideals and marked ability. Modern veterinary practice demands that its votaries keep abreast of the times in respect of their ability to turn the most recent discoveries in medical science to the advantage of their varied patients. But they have so much to live down! And yet so much achievement to glory in! There is a great need for the general public, and especially parents of available young men, to become acquainted with the nature, the purpose and the vital importance of a profession that is charged with the responsibility of maintaining the integrity of a great essential industry. The profession is not over crowded, the work is fascinating and honorable, its members occupy the highest positions of honor, trust and responsibility in their respective communities.

But agriculture is in the dumps which fact reacts unfavorably upon veterinary science and practice. Perhaps it is fortunate that many poorly qualified men—men who were never well prepared for their training and consequently never well trained, men who have neglected their opportunities to keep themselves informed of the advances in their science and practice, men who may be naturally ill adapted to the peculiar requirements of the profession—it may be fortunate that some such men are leaving the profession to go into business. Agriculture will speedily, or in due time, recover, there will be renewed interest in the pleasure horse and in pet animals and then who will look after them in sickness and advise their owners in order that sickness be avoided? Our veterinary colleges are graduating less than three qualified men annually for each state in the Union. In some states more than that many new positions are being created each year. Young men entering college now are preparing themselves for service four years from now. What will be the situation then? Certainly not better in so far as the number of available men is concerned.

There may be some thoughtless persons or some disgruntled clients who rejoice or at most see no cause for alarm in the veterinary situation. They would admit our premises but not our suggested conclusions. Is there not some other way whereby the livestock industry may be protected? Yes, undoubtedly; but it would be nothing but veterinary science and practice under another name or guise. For after all

(Continued on Page 26)

COMPARISON OF FIGURES FOR 1910 WITH THOSE OF 1920 FOR NUMBER AND VALUE OF LIVE STOCK ON FARMS,

	Dairy Cows		Horses		Mules		Sheep		Swine	
Michigan	Number	Value	Number	Value	Number	Value	Number	Value	Number	Value
1910	767,083	29,312,252	560,936	68,278,456	3,329	469,927	1,545,241	8,420,741	655,921	8,284,483
1920	977,000*	53,735,000*	605,509	56,433,765	5,884	661,115	1,209,191	13,688,379	1,106,066	19,621,714
Increase	209,917	24,422,748	44,573	11,844,691	2,555	191,188	336,050	5,267,638	450,145	11,337,231
United States	Number	Value	Number	Value	Number	Value	Number	Value	Number	Value
1910	20,625,432	706,236,307	17,430,418	1,985,554,817	3,787,316	497,982,330	39,644,046	203,516,144	35,134,097	352,157,958
1920	24,429,000*	1,241,726,000*	19,767,317	1,782,077,487	5,432,391	779,294,411	35,033,516	395,401,286	59,346,407	988,582,380
Increase	3,803,568	535,489,693	2,336,899	176,477,330	1,645,075	281,312,111	4,610,530	191,885,142	24,212,310	636,424,422

*Figures for 1923.

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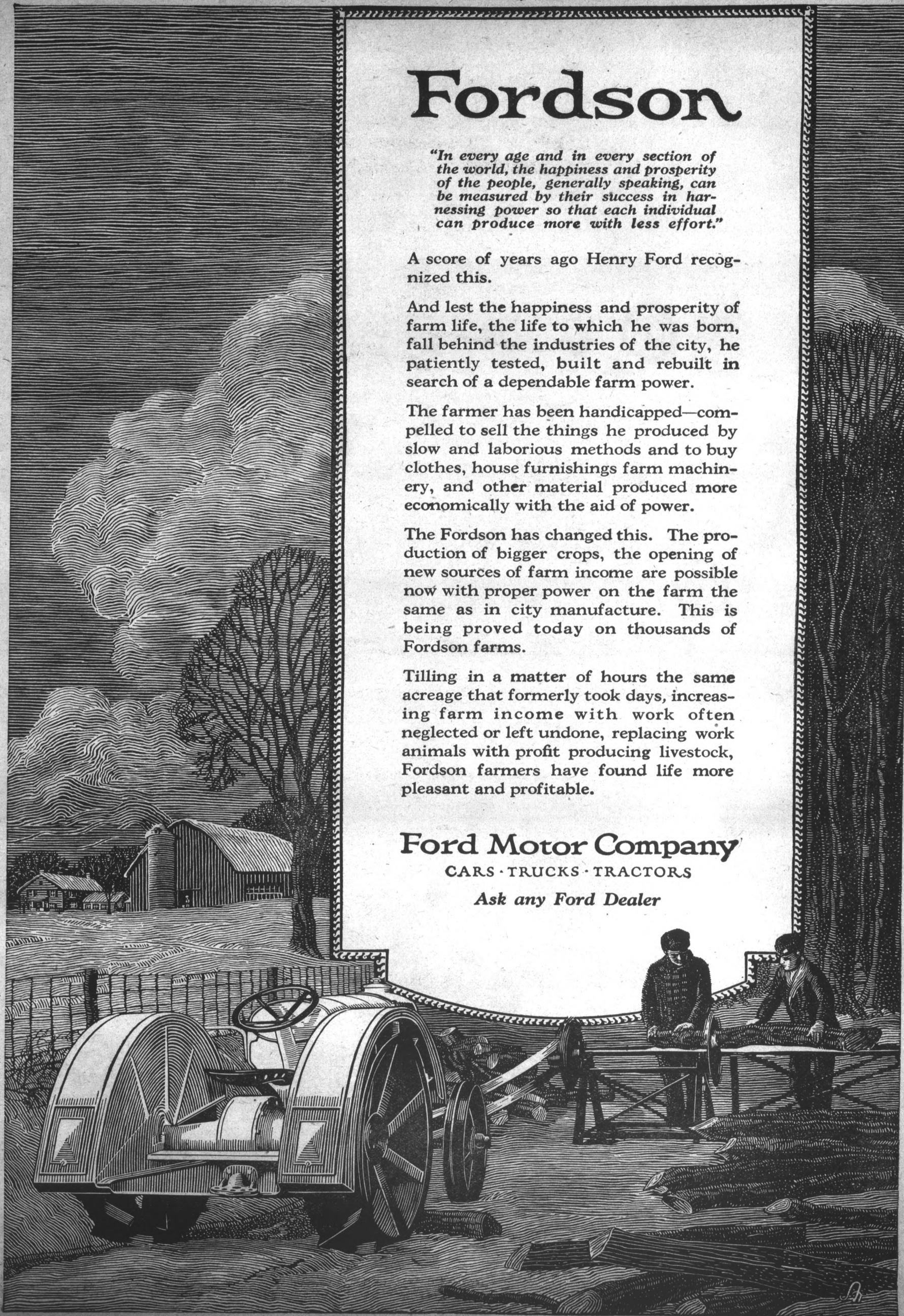
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What the Neighbors Say



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I WISH to advise you that we received the \$10.00 prize you sent us for the best home-made bean picker plan. We hereby wish to express our sincere thanks for the same, to Mr. Gerks we also wish to extend thanks. We feel we drew a good plan and we know if anybody makes one like it they will be satisfied with its work. We also wish to state that we couldn't get along without your valuable paper, it covers all branches of farming, so thoroughly that we find something interesting on practically every page of the issues. Our satisfaction is clearly indicated by our last subscription renewal, when we renewed for 5 years in advance. Only wishing we could be of some service to you, I am,—John Bos, Marion, R3, Mich.

SOLDIER FAVORS BONUS

DEAR Editor: Just a few lines in regard to your editorial "Mellon urges tax cut."

Sounds to me very much like the propaganda of a certain well known Chamber of Commerce. Maybe it is? However, this same Mr. Mellon piled up millions upon millions of dollars for himself and associates at the expense of the taxpayers of this country, and, as it often looks, at the expense of the men who fought. Yes it is every American's duty to fight for and uphold our country in time of need, but that is not saying advantage should be taken of their patriotism to beat them out of what they so justly earned, while those in snug jobs at home were making from eight to fifteen dollars a day and those who are fighting the bonus so hard now, were making millions and grafting right and left.

I am telling you right now when you say you have not talked to a soldier who was very strong for a bonus, that you have talked to a darn few soldiers. I am personally acquainted with about three hundred service men, and I have never heard one say he was anything but in favor of it, and at the 32nd Div, Reunion at Grand Rapids last summer, I heard about three thousand voice their approval.

I also notice that in almost the same breath that you denounce the bonus, you approve a bill to give Germany \$70,000,000. WHY? Because it might bring up the price of beans a few cents. It is the wish of a large majority of the people that a bonus be passed and you know it, and if it were not, how do you figure our representatives would be building political fences by passing it. I will close, hoping you will be a man fair enough to show the soldier's side of this question as well as the interests that are wishing its downfall.—H. Calkins, Highwood, Mich.

ABSTRACT COMPANY REPLIES TO "E. K."

DEAR EDITOR:—In your issue of September 29, there appeared an article from one of your subscribers signed "E. K." from Cass City, regarding abstracting and particularly regarding a certain abstract which he claims to have purchased from us. He particularly claimed that the charges for work done on this abstract were exorbitant, and complained of both charges and lack of guarantee as to accuracy. Will you kindly print for us in your valuable paper, the following reply:

His first suggestion is that abstracts should be made by county officials, and implies that such work would be more reliable and would cost less. The county official elected by the people for a period of two years, enters his office with no experience in the work, but must gain this experience by doing the work. During the busy season of the year when transfers of property are frequent, he is kept busy with this work of his office, and this is just the time when abstracts are most needed.

A competent abstractor could not go into the office of the Register of Deeds and make a complete abstract of any parcel of land from the records there found and certify to it as being correct. This may seem strange as the records are all in that

office. But these records consists of approximately 120,000 deeds and 100,000 mortgages, assignments and discharges recorded verbatim in a chronological order, the first records in our county being made in 1851, and following one another as received for record with no distinction as to land therein described.

To compile an abstract from these records, one may look in the Tract Book and find the name of the person locating that parcel of land. Then we must follow the index of name until a conveyance of that parcel is made by the first owner, then take the grantee's name and follow the guarantee's name and follow in the same manner, through sixteen books of indices of deeds and twelve books of indices of mortgages. But it often happens that the title does not run smoothly, an owner having perhaps abandoned the land, or perhaps a grantee does not place his deed on record, and then we are lost. But perhaps we know the name of the present owner and can tract back in the same way, beginning with the latest index book and going backwards to the beginning, or until we again become lost because of the dropping out of the party for whom we are looking. And we can go through each mortgage index following the name of those whom we have found to be the owner at one time of the parcel we are interested in, thus getting as nearly as possible, a good chain of title. But on lands in Tuscola County, particularly, there are numerous miscellaneous transfers not to be found in any way except by a careful perusal of each of the 200,000 transfers, and this is a task which it is supposed that a clerk could do in less than half a day and that a county official should be expected to do. An abstract compiled in such a manner, even approximately correct, would not be ready when required, and the cost would certainly be worth talking about if paid for by the time required to do such work.

"E. K." further states that his land abstracted consisted of about eight acres located partly in the Village of Cass City, that the charge of Fifty Dollars was outrageous, and that what he has as an abstract isn't worth much, and further states that he thinks it could have been made in much less than half a day. He also asks some interested person, even a practical abstractor, to answer. So let us see just how this particular abstract was made.

First, an abstract office is made up of vaults in which are kept copies of all the records from the office of Register of Deeds. These have been compiled from the beginning of the records, when time, labor and material were inexpensive, having been carefully guarded in vaults from loss by fire or other destructive agency. These records have been transferred to another complete set of books, one book for each township, each divided into 36 parts, into each of which are put all the transfers affecting that section of the particular township. There are also books for the villages and each village book is also divided into parts, so that each block of the village has a section of its own, and the various transfers affecting these separate blocks are placed therein, a transfer affecting several different parcels being placed under each division affected.

These books form a basis for the abstract work and represent much time and thought, and their value must form a part of the cost of an abstract. An abstract around any village represents many hours close study before any attempt at writing the document is made. The descriptions must be studied, so that all parcels which in any way cover the parcel concerned, are included and all others rejected. These must then be arranged so that a complete history of the parcel of land is shown. Sometimes two or three days are accupied in studying upon one description, before everything is arranged to form the most complete abstract possible from the recorded transfers. After this is done the abstract is written. Then it is compared with the record to be sure that nothing has been omitted. In cases where apparent breaks in title exist, records in offices of

Judge of Probate and County Clerk have been searched in the hope of finding some paper which, if recorded in the office of Register of Deeds, might add to the clearness of title and the office of County Treasurer is also entered looking for the tax record.

This, then, is the finished product sent out, being always examined by one who has had years of experience before being mailed, and this work, and the experience, and the intrinsic value of the records all enter into the cost of the finished abstract.

"E. K." is right in thinking that an abstract made from the last twenty years records would be of little value. The only excuse for the existence of an abstract is that it shows a complete history of the title, and that must come from the time of location of the property of its value is lacking. Of course it must be understood, in this connection, that an abstract does not guarantee perfect title. An abstract is simply a history of the title made for the purpose of disclosing errors, if any exist, and cannot change documents to make corrections.

The statement that "E. K." would not object to paying well for a real service seems to have been answered. If an abstract showing a complete history of the title is of value, we consider our work described above, to be a real service. If not, we are wasting not only our time but much mental labor which should be used in a good cause. But we believe that it is only lack of understanding of the real service given by the complete compilation of an abstract that has led to this discussion.

As for some different system, there is no other way by which ones title to property may be determined. A state may not decree a good title in a person who is holding possession of a piece of land without satisfactory evidence that no one else has a good claim to such land. For this purpose, there must first be secured a complete abstract of title and a clear title must be shown, oftentimes expensive court proceedings being required to clear old clouds upon title, and then a Title Certificate may be issued by the state in which such a system has been adopted. As for the reduced cost, a recent visitor to our office, commenting on the reasonableness of our charges, spoke of the cost of abstracts secured in a state in which this system is used, and aid that his firm often had to pay \$200 or \$300 for one abstract. As for the value of this system, the fact that many decline to deal with titles so registered, does not give us full confidence in its use.—Ealy & Co., Abstractors, Tuscola County, Michigan.

TO INCREASE SALES OF PRISON TWINE

DEAR Editor:—I have seen by the papers that the Michigan farmers were not buying as much prison twine as they should. One reason is I think that the persons who order it cannot take the time to canvass their townships to see about what they can sell. I ordered one-half ton and if I could have had two ton I could have sold it by doing a little advertising, I believe. If one person in each township could order what they could sell and give good bonds or security for the amount, and settle with the prison every two weeks and not sell any of it, except for cash, the sale of twine could be increased double. I know it could more than double in my township. I believe the farmers ought to support this to the limit. I would like to hear from someone else who has a better plan.—Wm. R. Symons, Arenac County, Mich.

OUR 1924 COVER MODEL

JOHN ALTON LORD, of Lapeer county, is the young gentleman who so kindly consented to pose for the cover of this issue. He is the son of Mr. and Mrs. F. A. Lord and his father is the owner and editor of the Lapeer County Clarion and the Otsego County Herald. Evidently this young man is optimistic over the prospects of 1924—so are we and we hope you are!

Home, James!

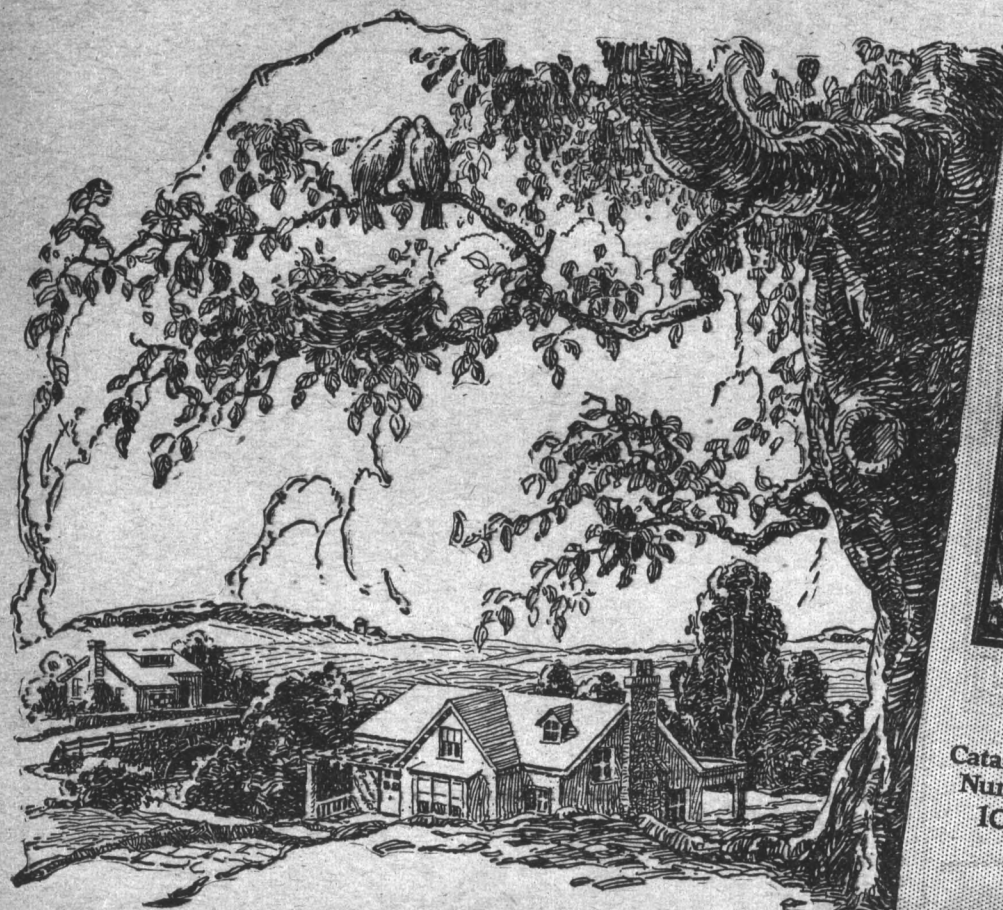
Unlucky Motorist (having killed the lady's puppy): "Madame, I will replace the animal."

Lady: "Sir, you flatter yourself."—Bison.

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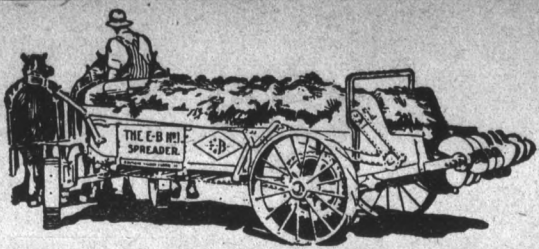
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What Will Beet Growers Get For 1923 Crop?

(Continued from Page 4)

will be more manifest this next spring than last spring.

The big question in the growers' minds at the present time is what will we get for our beets? It cannot be answered for certain until after February the 1st, 1924. And anyone that has stated any price, is simply talking for effect, as the average extraction cannot be known until after the factories close which will not be known until February 1st, 1924. However, I am warranted in stating that my opinion is that it will be good in both extraction and price. One factory manager has told me that up to date the extraction has been above the average, which is about 250 pounds per ton of beets, and the average New York price of sugar since October 1st is around \$8.80 for cane.

Another question which is agitating the growers' mind is what kind of contract will the 1924 contract be? This question is no doubt in the minds of the personnel of the factories. Some say there will still be the three contracts for next year, some say the factories will get together and come out with one embodying the good points of all three. I believe this can be done. Further I believe it should be done. Let me suggest a contract embodying a participating contract on a 50-50 basis, charging a certain sum per acre, where labor assistance is furnished and a safe minimum substantial first payment of say \$6.00 per ton which would relieve the minds of our growers that are doing business entirely on borrowed capital. I may say frankly that I cannot find a year where the grower actually did gain anything financially by having a guaranteed minimum price in his contract, but if it makes us feel better, why let's have it.

In closing, there is one other question that is bothering the minds of the growers and that is the accusation that they are employing child labor in the beet fields. My opinion is that these that are bringing the charges are not familiar with the facts of the case. It was charged by Mr. Owen R. Lovejoy, Secretary of the National Child Labor Committee that the beet workers children lost 63 per cent of their school time. This if true is not on account of beet work, as schools are closed for the summer, and the harvest does not begin until about October 15th and is done about December 10th and very few children under 16 years can do much topping beets. The writer sends a picture of some of his beet workers that represent the kind that really pay to have in the beet field. Mr. Lovejoy charges that work in the beet fields is detrimental to the health of children, not being a doctor I cannot say. However the writer has labored at most all kinds of farm work since he was six years old, at such work that he could do and has acquired thereby a practical knowledge of his business that is worth a great deal of money. Besides has formed habits of industriousness that lots of children nowadays are not getting. As far as I have observed, the best workers children are not overworked, neither are they under-fed, as

stated by Mr. Lovejoy and I have been in every beet growing section in Michigan.

According to Dr. Carl E. Buck, epidemiologist of the Department of Health, there are not so many under-nourished children in the poor sections of the cities as there are among the wealthier class of people, as the food the poorer class of children get is plain, but nourishing, whereas, the children of the rich become dainty in their eating habits and therefore form abnormal appetites not to their good. It is a fact then moving these children out of the crowded city into the open country in the summer time certainly cannot be detrimental to their health. Especially when their work and play is in the open air. As far as housing conditions are concerned, it should be made clear that the sugar companies are renting houses that are occupied by farmers themselves a couple of years ago, having since moved into the cities. There are a few of the "beet shanties" being used, but they compare very favorably with the usual summer resort's cottage that he lives in when he takes his vacation.

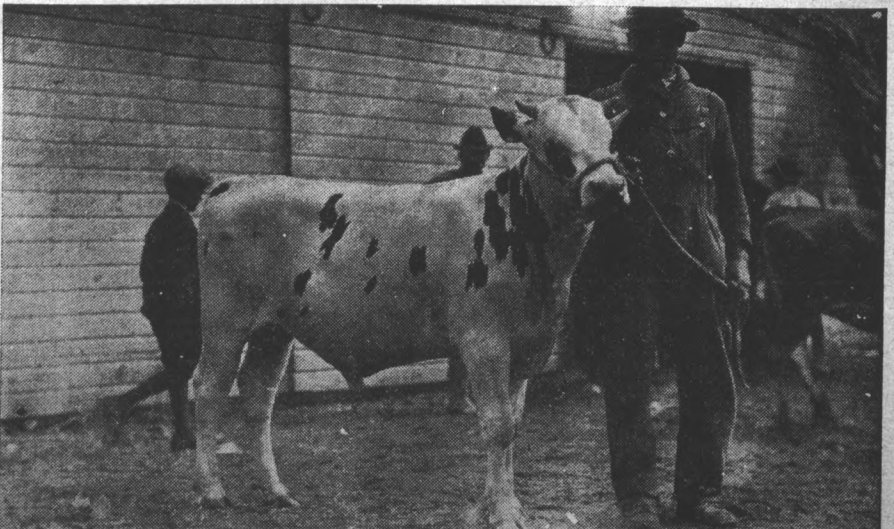
One point more, Mr. Lovejoy charges that his agents actually covered 10,500 acres of the beet fields and found 1358 children at work there if he had covered the whole beet acreage in Michigan then he would have found 14,938 children at work since he states that these children done around 7 acres of beets apiece, there would be only 4,034 acres left for the 10,900 adult laborers the 17 sugar factories hired to work. If Mr. Lovejoy's contentions are true then it is not a question of child labor, but a question of the childishness of labor. The facts are that beet workers do not shirk like so many city workers nowadays, because they are working not by the day but by the acre. Therefore the efficiency of the beet worker and his family for which the Michigan sugar beet growers paid \$2,507,000.00 in cash and about \$620,000.00 in extra bonuses, house rents, gardens, fuel, and transportation from and back to the cities from whence they came.

THE EXPERIENCE POOL

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

INFORMATION WANTED

Have read the experiences of the readers of your paper on The Oil Gas Burner and have decided not to get one. There are two things I would like to learn something about, through your Experience Pool. Namely: The knitting Machines, that are used at home and goods sold, and the union looms for making rugs and cushions.—Mrs. Lida Brooks, R3, Midland, Mich.



This young Holstein bull was shown at the Michigan State Fair in 1923 by his owner, Frances Maulbetsch, Ann Arbor. This young bull won first prize as senior calf, was champion Holstein bull in the club class and winner of fourth prize in the open class of twelve entries. At the Washtenaw County Fair he was first in his class and grand champion Holstein bull. His proud owner stands at his head in the picture.

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NEW LEADERSHIP FOR THE NEW YEAR

A SERMON BY REV. DAVID F. WARNER

TEXT: "He that hath ears to hear, let him hear what the Spirit saith to the churches."—Rev. 3:6.

WE jubilantly salute the New Year. We hail it for its revolutionary newness. It brings to us glad tidings of universal unrest; of the giving of industrial tyranny and the forced abdication of political autocrats. But more significant still, ecclesiastical authority is yielding to a more sympathetic and representative leadership. The legalistic John gave way to the leadership of the Christ. Yet, how humbly and graciously! It is not given to too many men to retire, willingly, when a better man appears to assume the role of leadership. This Jesus, for a time, became the visible, personal leader of His church. But isn't He our personal leader, yet? The Revelator sees Him walking among the churches in the wisdom and power of God. Hugh Black saw him on the battle fields of France as the "Comrade in White." And even yet, when we meet in His Name, He promises to be in our midst; and when we go out to our tasks, he says, "Lo, I am with you always."

But one day, He and His disciples took a farewell walk up the gentle slopes of Olivet. "And it came to pass, while He blessed them there He was carried up into heaven." Yet not until he had given them the imperative order to "Tarry" until they were clothed. Clothed with what? With more accessions to their number? With more means? With symbol or sacrament? No. But clothed with power. The Greek word translated "power," is the word for dynamite. That is significant, isn't it? Well, the disciples tarried for this spiritual dynamite. Church folks speak of it as the blessing of Pentecost. And here is where the Holy Spirit assumes the leadership of God's people to convict of sin and impart life and power. "He that hath an ear, let him hear what the Spirit saith to the churches." And so, while a visible leader seems to be a psychological necessity, the invisible leadership of the Spirit is fundamental. The one gives vision, the other gives power. And the church in Sardis needed most of all to recognize the leadership of "the seven spirits of God," which is to say, the Holy Spirit. (Read the Revelation of St. John, 3:1-6).

Sardis was a popular church, widely known and advertised. And while "thou hast a name that thou livest," evidently it was due to a selfish directed publicity. You can see its publicity departments putting out in great, red letters, "The People's Church," or "The Glad Hand Church." "To-night the President's message will be radioed. Be on time and hear the great choir." "O Sardis, thou hast a name, but thou art dead." "Thou hast depended for thy life and power upon machinery and men, when, only the church that is in constant correspondence with Him who hath 'the seven spirits of God,' hath life; not a semblance of life."

In some animals, even after death has taken place, you will notice a spasmodic twitching and movement of the muscles. How many churches and individuals try so hard to hold the respect of the community and friends thru a show of Christian life when their spiritual heart has ceased to beat! And can't we see how possible it is (tho how fatal) to be connected with a church thru a formal adherence, but not thru a vital conviction! "Sardis, thou art dead." But is my church dead? Haven't we been much alive during the past year? Just see our fine training center and take note of all our equipment! And how we have prophesied in the name of Christ and have laid our gifts at our Lord's feet! Why, we don't feel any sting of death. But paralysis is not painful. And it is the business of the world to chloroform the church into an unconscious death. We need to be solemnly aroused to the fear that spiritual paralysis be creeping up to our heart and we be unconscious of it. Samson slept in the lap of a Delilah and went out to

perform his usual feats, and wist not that his strength was gone. Sardis was sleeping in the lap of the world not knowing that her life blood was ebbing away. And your church may have plenty of organization activity, but a growing deadness at life's center. Yet, withal, there always stand out in bold spiritual relief, "a few names that have not defiled their garments." "They shall walk with me in white for they are worthy." May this new year find more churches coming out of the denominational blundering promoted by an ecclesiastical hierarchy; away from selfish connection with Christ, their Head. Does it not seem, sometimes, that Christ, the "chief corner stone" would yet be rejected by the builders? And does it not appear that in our zeal to have the biggest church, the best choir, and the most popular stand-in with the community, that we are in danger of betraying and repudiating the spirit and devotion of the "apostles and prophets" who constitute the first course in the building?

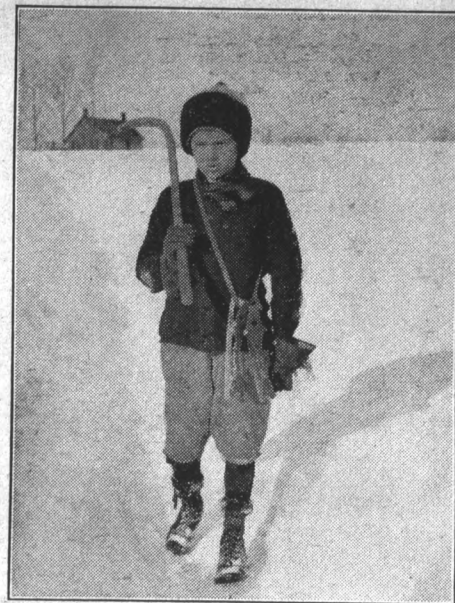
Now, God, thru His spirit, is the self-appointed leader of the church. In the Jewish wilderness assembly, the ark went before them and the cloud was over them; but Kadesh Barnes witnessed their defeat because they preferred man's counsel. In choosing their king, Israel turned from the counsel of God, and while a man-led kingdom was dying out, it became clearer and clearer to the wide-visioned prophets that God must send a leader to earth to vindicate His name and save His people. This Leader came; He served; He died; He ascended; yet, he still walks among us in the "seven spirits of God." And when the heavenly dove made its peaceful descent upon our Savior, God gave of his spirit in overwhelming measure. When Christ ascended He did so that He might fill our "earthen vessels" without measure, with the same spirit and so to impart quickening life and power. May the New Year bring this conscious conviction to all, that it is not in man or the things of man to impart spiritual life; but the holy ways of grace and power are learned from Him, who hath the spirit that was sent by direct course to heal our deadness.

But what is the practical meaning of all this? It is this: "Judgement must begin with the house of God." Your church and mine must get right with God. Sardis, "I have found no works of thine perfected before God." "Be thou watchful and establish the things that remain." Life had not entirely gone out. There was smoldering embers lying about, and the Seer is pleading that she yield to the leadership of Him who does not quench smoldering flax, but fans it into a new fire. This means that until churches yield precedence to Christ, above love of denomination, sacrament, or ritual, or prestige, they can not keep their garment from defilement.

Now, we would not minimize the need of an efficient church for this new era. Modern equipment and organization are important. But all this is but as cold, lifeless machinery without spiritual fitness. The coal is shoveled into the engine but no power is generated. Why? There is no fire. But it takes fire to create fire. Just this is the meaning of Pentecost. Moses came down from the mountain one day with the Ten Commandments, and read them impressively, expecting that his people would learn and obey them before reaching Canaan. But they have not done so to this day. Why? Jesus came down from the new Sinai in a later day and submitted the rules for Christian efficiency in a new age (the Sermon on the Mount), but we treat them as impractical and visionary, and something to be achieved in the long after while. Why? Did you ever try to think it out and feel it out? In the days of river traffic, passengers were want to wait for days for their boat. In the interim they would idle away their time whittling and swapping stories. But when, up the river, the deep scream of the boat's whistle was heard, no matter whether day or night, the whole town awoke into a spasmodic activity until the

(Continued on Page 23)

When skating pond takes Tom from kindling pile, there's a chance for a story-telling picture. Such pictures are sure of a smile when you turn the page in your Kodak Album. Illustration from a Kodak negative.



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The Michigan BUSINESS FARMER

SATURDAY, JANUARY 5, 1924

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THE RURAL PUBLISHING COMPANY, Inc.
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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"

1924

OUR very able Secretary of Agriculture, Mr. Wallace, has in his usual clear and concise manner set forward a program, which is at the same time a prediction, of the better things which are in store for American agriculture during 1924.

There can be little question now, but what the farming business on the whole, is convalescing from a period of depression such as has not been experienced since the period immediately following the Civil War.

We who have been closely identified with the agricultural business have felt as though we were passing through a period the like of which had never been seen before, but history in its usual manner has only repeated its "I" and we are now emerging into the silver lining, the turn in which was felt in most divisions of the farming and stock growing business early in 1923.

The migration from the farms to the cities has only decreased the number of producers and increased the number of consumers. We have pointed out consistently through these columns that this could only work to the benefit of those who would remain on the farm.

It is the real farmers who have stuck by their farms, at least in that territory north of the Mississippi and Ohio Rivers, which is after all the real prosperous agricultural and dairy heart of America.

We look forward with real optimism for the farmers in Michigan particularly during 1924, and those who were smiled at as their neighbors drove toward the city with their household effects are going to have a chance to smile, if our prediction proves correct, before the end of this very year.

As old Bill Nye once said, "Things might have been wuss, but I don't see how!"

FARMERS IN SUGAR FACTORIES

FROM Owosso comes a report that most of the labor employed in the sugar beet plant operated there has been recruited this year from the farming district immediately adjacent to this plant.

It may be that this is a solution to the employment of the surplus of farm labor which is created with the locking up of Nature's storehouse, in the early winter, here in Michigan.

Perhaps the conditions which have forced the present situation at Owosso, which is doubtless reflected in other sections of the state, is a move in the right direction. Would it not be possible for the factories to begin slicing later in the season after the farmers and farm labor were released from their fields? This may offer a suggestion for a happy solution to one of the present day farming problems.

CHRISTMAS TREE WASTE

NO one who has in his heart a love for conservation could go about the streets of Detroit or any other large city in Michigan Christmas Day filled with the true Christmas spirit. He was too embittered by the sight of thousands of unused Christmas trees lying in every vacant lot because the supply had far exceeded the demand, great as that must have been.

Even the city newspapers are up in arms against this unwarranted destruction of the years of growth necessary to create this standing timber in the northern part of our state. To duplicate these young trees which are destroyed will take years of patient effort and the surprising part is that most of them were cut down by a lawless bunch of vandals who drove into northern

Michigan via auto truck from the cities and actually stole them from property which was not their own.

It would be impossible for the state police if they were numbered in the thousands to protect these trees which are scattered over so large an area and in so many countries, but it should not be hard to check from the selling end, where the trees came from, and if they were legitimately purchased.

No one would want to deprive a single child of the sight of the Christmas tree but there must be a way to discourage this wholesale destruction and the needless waste which it involves, and no larger subject can attract the attention of the State Board of Conservation. They should have the support of the legislature in any law they want enacted to curb this practice.

THE SUGAR BEET SITUATION

THERE is no man in Michigan who enjoys a better reputation among the beet growers themselves than C. E. Ackerman of Durand, who on page 4 of this issue discusses the sugar beet situation in Michigan, the probable price to be paid and the outlook for the future.

Mr. Ackerman has been a leading figure in many of the bitter fights which have been staged in Michigan and he is one of the men who has been given considerable credit for the progress which has been made to benefit the growers during the past few years.

The fact that he is optimistic over the future of sugar beet growing in Michigan is a signal for congratulations on the part of beet growers in our state and for the sugar beet industry generally.

We hope every reader in the sugar beet country will not only read this article but pass it along to his friends and neighbors who grow beets and we want you to know that the columns of THE BUSINESS FARMER are always open to a discussion of any of the points which Mr. Ackerman or any other writer brings up so that you may feel perfectly free to state your facts and they will be published with your name or

SECRETARY OF AGRICULTURE OPTIMISTIC OVER FARMING IN 1923-1924

THE industry, courage and faith evidenced by the farmers of the Nation during the past three years are slowly bringing their reward. Improvement in agricultural conditions continues—not as rapidly as desired or needed, nor as rapidly as deserved, but nevertheless it continues. The promise of the year has been fulfilled.

So we come to the end of the third year of post-war depression with a feeling of greater confidence born of better times already realized and with justified hope of still further improvement in 1924.

In general, the crops of 1923 were good. Some sections in the cotton belt and in the wheat belt suffered from the ravages of weather and insect pests, but the aggregate crop production was equal to the average of the five preceding years.

Considering money return we find that the values of most crops are greater than in 1922. The total value of all crops is 12 per cent greater. The values of the wheat, rye, rice, clover seed, cranberry, peach and pear crops are below 1922; in the case of wheat 11 per cent below. The values of all other important crops are greater.

It is difficult to measure the productive value of livestock during the year, dependent as it is upon crops marketed in that form. In general, it has been a prosperous year for sheep growers, fairly good for dairy-men, less satisfactory for producers of hogs, and discouraging for growers of range cattle. Cattle feeders, however, have done very well on the whole.

Experience gained during these years of depression, however, together with progress already made, warrant a hopeful attitude for the coming year. Gradually crop acreage is being better adjusted. The domestic market continues strong. The children keep coming, and that means a steadily increasing number of mouths to be fed. Those who stay by the farm and do good farming can look forward to better times as a reward for their years of toil and hardship. Those businesses depend directly upon farm purchases can find decided encouragement in the growing gross income of the farmer, for he will buy as his income expands.

The year 1924 comes with the promise of continued improvement in the material prosperity of the farmer, and the farmer continues to be the material and spiritual backbone of the Nation.—Henry C. Wallace, Secretary of Agriculture.

not as you so desire. The important thing is to get the opinion not only of one reader but of the many who are confronted with perhaps other problems or who have other ideas which are worthy of discussion.

THE SPECIAL SESSION

IT cost the tax payers of Michigan considerably more than \$20,000 to call an extra session of the legislature and to find out who actually is "boss" at Lansing.

After meeting for nearly two weeks the legislature was adjourned without passing one single bill or performing one single act of benefit to the state unless it be reasoned that their refusal to enact the reapportionment bill until a constitutional amendment is voted upon would be worth the astounding amount which this cost.

Of course the voters and taxpayers of Michigan know that the legislature's refusal to consider the reapportionment act was largely a thrust at Governor Groesbeck who, rightly or wrongly as you may think, is accused of being a supreme "boss" on his job and neither his pleading nor his threats could change the majority of the legislature in anything that he sponsored.

There is much to be said on the matter of reapportionment in this state. It is not a simple problem and is one that will require considerable discussion if the people of Michigan are to vote intelligently on an amendment to the constitution regarding it, which now seems necessary if any is made.

Anyway we hope the boys enjoyed the week or two they had at Lansing just before Christmas!

MORE VETERINARIANS NEEDED

IF you have thought that the auto repair man had the veterinarian by the throat and that with the apparent "passing of the horse" there was to be no more need for the old familiar "horse doctor", prepare to change your views.

Professor Ward Giltner, head of the Veterinary Department of M. A. C., leads a very timely discussion on this subject in a special article in this issue, in which he encourages farmer boys to take up this lucrative employment in their neighborhood as a veterinarian and points out that the number of horses, cows, mules and swine have largely increased not only in Michigan but in the entire United States during the past ten years in spite of its phenomenal development in automotive power.

There are any number of communities even in our own state where there is no good veterinarian within easy access, and yet the number of animals on the farms is constantly increasing and their needs for medical attention must be as carefully guarded as are those of their human owners.

There is many a boy going into some other profession from the farms today who could make a greater success as a veterinarian not only because of the opportunities it presents but because of his natural aptitude for handling animals and his real and perfectly natural joy in working with them.

Fortunately Michigan has an excellent veterinary department at its agricultural college and the man in charge of it is acknowledged as the foremost teacher of his profession in the United States today. If you are interested or if you have a boy who is interested we suggest you write Professor Giltner. You will find him only too anxious to help you make the right start.

THE GOVERNOR SMELLS "PORK"

PERHAPS Governor Groesbeck is right when he points out the possible danger of a "Pork-Barrel" in Michigan which will become as popular with a certain type of politicians as is that larger and more famous river and harbor bill in the national congress.

It now appears, according to the Governor, that certain members of the Legislature who make demands for state road improvements in their own districts, offer to trade votes on important measures with the simple assurance that their demands for road improvement be granted.

As it now stands, the construction and improvement of roads in Michigan, is entirely under the governor and his state board of administration, and it is likely that this one has given rise to the popular conception that the present governor is using czar-like methods in the administration of his office. It is obvious that the matter of road building must be considered in the light of the use to which all sections of the state will give these main highways. The matter of local connecting roads is one that is strictly within the confines of the county, and should be so considered. It is likewise obvious, that if the building of roads in Michigan, were to be entirely based on the activities of the various representatives at Lansing, there would be no complete plans ever carried out, and the state would appear simply as a crazy-quilt of roads, heading in all directions, but ending nowhere.

PUBLISHER'S DESK

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 December 29, 1923
Total number claims filed.....2404
Amount involved.....\$23,245.28
Number claims settled.....835
Amount secured.....\$22,283.85

THE SOLUTION FRAUD

THE National Vigilance Committee is issuing warnings of a fraudulent proposition which goes under several names, but is a fluid claimed to renew the life in a worn-out storage battery instantly.

We have not heard from this in Michigan yet, but we can very well issue this warning, thus locking the stable-door for once before the horse is stolen!

If anyone offers you any kind of "monkey-glands" which are guaranteed to make your old storage battery act like a new one in a jiffy, call the sheriff and send me the particulars.

A SONG WRITING SWINDLE

ALLURING statements regarding the easy money supposed to be made in song-writing are published from time to time and serve as a bait to the ignorant and unwary who then become easy victims for the "songsharks."

Without advertising these concerns could not secure fresh victims. Here are a few typical advertisements:

WHY DON'T YOU WRITE THE WORDS FOR A SONG. We'll help you along by composing the music free and publishing same. Send poems today.

WRITE THE WORDS FOR A SONG. We will compose music, secure copyright, and print. Submit poems on any subject.

NO MONEY NEEDED FOR PUBLICATION. Poems set to music and published on commission.

WRITE THE WORDS FOR A SONG. We revise Poems, write music and guarantee to secure publication. Submit poems on any subject.

WRITE A SONG POEM. Love, Mother, Home, Comic or any subject. I compose music and guarantee publication. Send words today.

SONGS AND POEMS WANTED. We compose music, publish, sell and pay you five cents royalty on every copy sold.

The fake publisher and song-shark secures his victims through advertisements in the cheaper grade magazines of wide circulation. To those who respond he sends alluring circulars and booklets to show how easy it is to turn out song-poems that may bring "fame and fortune." With the false bait contracts are sent out for the victim to sign, together with "Certificates of Guarantee" and "Money Refund Certificates." In order to induce the signing of these contracts the advertisers, whether "Music Company," "Corporation," "Student," "Bureau" or by the name of an individual, flatter the prospective victim by praising his song-text, no matter how poor it may be. Of course they offer to revise it and have their "Chief Composer" set it to music. If the sucker is slow in answering a series of clever follow-ups pursue him until he takes the

bait, signs the contracts, sends his money and is hooked.

Any hack musician of experience can grind out commonplace music by the yard. With song-texts set before him on the piano-rack and plenty of music paper he'll wearily work all day on one or two formulas till sick of them, then use another, always basing his scheme on the popular music of the hour.

While the government has closed many of these concerns for obtaining money under false pretense others still flourish and by carefully worded documents that seek to keep within the law they somehow escape the clutches of the authorities.

SONG SWINDLER GETS YEAR AND \$2000 FINE

A YEAR and a day in prison was the sentence imposed in U. S. Court by Federal Judge Lindley on W. L. Needham, manager of the Musician Self-Maker Company, in whose trial the government submitted 2220 exhibits of verses which ambitious novice poets and writers sent him in the belief they would be set to music. Needham was convicted of using the mails to defraud. He also was fined \$2000.

Many of the writers of lyrics came from their homes in distant states to testify of how they had sent Needham fees from \$2 or \$3 to \$35.

"You were a petty parasite on the community, getting money from trusting people—a high school boy, a woman with a baby in her arms, and a woman 63 years old," said the judge in passing sentence.

Chicago Sharks Wiped Out

The Needham case represents the type of fraud known as the song swindle or fake publishing for the exposure of which the Music Industries Chamber of Commerce has undertaken a campaign on behalf of the Music Publishers' Association of the U. S. and other legitimate music trade interests. An active, systematic drive to warn amateur song writers and get them to report their complaints to the post office authorities, has resulted in saving many victims and checkmating the song sharks.

MADE THEM COME TO TIME

THANKS to you! The Seed Co. has sent us a check for the amount that I sent them. I know that we have you to thank for ever getting it back even if they did write a soft letter saying how very sorry they were that the order had not received better attention. They had plenty of time to reply to the letters I sent them before it was placed in your hands. It has certainly been a boost for your paper as a good many of my neighbors (some who already take your paper) were interested in the case and many doubted if I would ever get my money back. So thanking you again and wishing you a most successful New Year, I am, Fred R. Smith, Wexford County, Mich.

LIKES M. B. F.

YOU folks certainly publish the best farm paper in Michigan, and I came to you with my trouble. Now please accept my thanks for so promptly taking up my claim with the Company. This letter is to tell you that on the 22nd, part of the goods came and on the 24th the rest came so you see that lets you out without any further trouble. Please again accept my thanks, and here is to you and the best farm paper in Michigan, with best regards.—A. F. Schmidtke, Mason County, Mich.

GOVERNMENT BULLETINS OF INTEREST IN JANUARY

SMALL list of Farmers' Bulletins of general interest during January is believed to be of value to our readers. Copies may be obtained free by addressing the Office of Publications, United States Department of Agriculture, Washington, D. C. Specify number and name in requesting bulletins.

Farmers' Bulletin 181, Pruning; 823, Farm Reservoirs; 847, Potato Storage and Storage Houses; 947, care and Repair of Mowers, Reapers, Binders; 1036, Care and Repair of Grain Separators; 1040, An Illustrated Poultry Primer from Cold; 1117, Forestry and Farm Income; 1121, The Trenching Machinery; 1150, Diseases of Apples in Storage; 1194, Operating a Home Heating Plant; 1387, Laws Relating to Fur Animals for the Season 1923-24.

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E. B. Travis and daughter, Mary.....	10.00
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Mrs. Blanche Snider.....	1.00
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Theo. Bengel.....	1.00
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Nature left that air space

Did you ever stop to think why there is a hollow space at one end of an egg? Nature has provided that air space so that the baby chick may have air to breathe from the time it comes to life within the egg until it is strong enough to break through the shell.

Egghatched in an incubator absorb the air from the incubator. If fumes from poor oil are present they will penetrate the egg shell, which is porous, and the little chick dies in the process of incubation.

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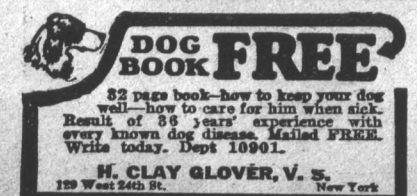
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THE STORY TO DATE

MR. STANLEY G. FULTON, 50-year old bachelor and possessor of twenty million dollars, calls on his lawyer and they discuss the disposition of this large fortune after its owner's death. The lawyer is in favor of giving the money to colleges or charities while Fulton is opposed to these ideas. He remembers that he has some distant cousins and decides to leave the money to one of them, but first he determines to learn which one will use it to the best advantage. To find out who is the worthy one he, through his lawyer, gives, each cousin \$100,000 to use as they will. Before giving them the money grows a beard and, using the name of Mr. John Smith, goes to the town where they live to find out what kind of people they are. Upon arriving in town he visits James Blaisdell, one of the cousins, where he tries to hire board and lodging. While there he meets Miss Flora Blaisdell, another cousin who is a dressmaker. They decide they cannot rent a room to him and supply him board and refer him to Frank Blaisdell's, the third cousin. He gets a room there and, passing as a writer gathering material for a book on the Blaisdell family in this country, he starts out. He calls on all of the Blaisdells and as they all talk of a relative by the name of Miss Maggie Duff he decides to call on the lady. He finds her living with her father, an old man who seems to have soured on the world. He secures what information he can from her and her father. He then writes a letter to his lawyer discussing the various relatives he has met.

(Continued from Dec. 22nd issue.)

ICAN'T see that any of the family are really extravagant, unless, perhaps, it's Mrs. James—"Hattie." She is ambitious and is inclined to live on a scale a little beyond her means, I judge. But that will be alright, of course, when she has the money to gratify her tastes. Jim—poor fellow, I shall be glad to see him take it easy, for once. He reminds me of the old horse I saw the other day running one of those infernal treadmill threshing machines—always going, but never getting there. He works, and works hard, and then he gets a job nights and works harder; but he never catches up with his bills, I fancy. What a world of solid comfort he'll take with that hundred thousand! I can hear him draw the long breath now—for once every bill paid!

Of course, the Frank Blaisdells are the most thrifty of the bunch—at least, Mrs. Frank, "Jane," is—and I dare say they would be the most conservative handlers of my millions. But time will tell. Anyhow, I shall be glad to see them enjoy themselves meanwhile with the hundred thousand. Maybe Mrs. Jane will be constrained to clear my room of a few of the mats and covers and tidies! I have hopes. At least, I shall surely have a vacation from her everlasting "We can't afford it," and her equally everlasting "Of course, if I had the money I'd do it." Praise be for that!—and it'll be worth a hundred thousand to me, believe me, Ned.

As for the husband—I'm not sure how he will take it. It isn't corn or peas or flour or sugar, you see, and I'm not posted as to his opinion of much of anything else. He'll spend some of it, though—I'm sure of that. I don't think he always thoroughly appreciates his wife's thrifty ideas of economy. I have not forgotten the night I came home once, to find Mrs. Jane out calling, and Mr. Frank rampaging around the house with every gas jet at full blast. It seems he was packing his bag to go on a hurried business trip. He laughed a little sheepishly—I suppose he saw my glancing amazement at the illumination—and said nothing about being tired of always feeling his way through pitch-dark rooms. So, as I say, I'm not quite sure of Mr. Frank when he comes into possession of the hundred thousand. He's been cooped up in the dark so long he may want to blow in the whole hundred thousand in one grand flare of light. However, I reckon I needn't worry—he'll still have Mrs. Jane—to turn some of the gas jets down!

As for the younger generation—they're fine, every one of them; and just think what this money will mean to them in education and advantages! Jim's son, Fred, eighteen, is a fine, manly boy. He's got his mother's ambitions, and he's keen for college—even talks of working his way (much to his mother's horror) if his father can't find the money to send him. Of course, that part will be all right now—in a month.

The daughter, Bessie (almost seventeen), is an exceedingly pretty girl. She, too, is ambitious—almost too much so, perhaps, for her happiness, in the present state of their pocketbook. But of course that, too, will be alright, after next month. Benny, the nine-year-old, will be concerned as little as any one over that hundred thousand dollars, I imagine. The real value of the gift he will not appreciate, of course; in fact, I doubt if he even approves of it—lest his privileges as to meals and manners be still further curtailed. Poor Benny! Now, Mellicent—

Perhaps in no one do I expect to so thoroughly rejoice as I do in poor little pleasure-starved Mellicent. I realize, of course, music-culture, and travel; but I must confess that in my dearest vision, this child is reveling in one grand whirl of pink dresses and chocolate bonbons. Bless her dear heart! I gave her one five-pound box of candy, but I never repeated the mistake. Besides enduring the manifestly suspicious approval of her mother because I had made the gift, I have had the added torment of seeing the box of chocolates doled out to that poor child at the rate of two pieces a day.

They aren't gone yet, but I'll warrant they're as hard as bullets—those wretched bonbons. I picked the box up yesterday. You should have heard it rattle!

But there is yet another phase of the money business in connection with Mellicent that pleases me mightily. A certain youth by the name of Carl Pennock has been beaueing her around a good deal, since I came. The Pennocks have some money—fifty thousand, or so, I believe—and is reported that Mrs. Pennock has put her foot down on the building romance—because the Blaisdells have not got money enough! (Begin to see where my chuckles come in?) However true this report may be, the fact remains that the youth has not been near the house for a month past, nor taken Mellicent anywhere. Of course, it shows him and his family up—for just what they are; but it has been mortifying for poor Mellicent. She's showing her pluck like a little trump, however, and goes serenely on her way with her head just enough in the air—but not too much.

I don't think Mellicent's real heart is affected in the least—she's only eighteen, remember—but her pride is. And her mother—! Mrs. Jane is thoroughly angry as well as mortified. She says Mellicent is every whit as good as those Pennocks, and that the woman who would let a paltry thing like money stand in the way of her son's affections is a pretty small specimen. For her part, she never did have any use for rich folks, anyway, and she is proud and glad that she's poor! I'm afraid Mrs. Jane was very angry when she said that. However, so much for her—and she may change her opinion one of these days.

My private suspicion is that young Pennock is already repentant, and is pulling hard at his mother's leading-strings; I was with Mellicent the other day when we met the lad face to face on the street. Mellicent smiled and nodded casually, but Pennock—he turned all colors of the rainbow, with terror, pleading, apology, and assumed indifference all chasing each other across his face. Dear, dear, but he was a sight!

There is, too, another feature in the case. It seems that a new family by the name of Gaylord have come to town and opened up the Gaylord mansion. Gaylord is a son of old Peter Gaylord, and is a millionaire. They are making quite a splurge in the way of balls and liveried servants, and motor cars, and the town is agog with it all. There are young people in the family, and especially there is a girl, Miss Pearl, whom, reports says, the Pennocks have selected as being a suitable mate for Carl. At all events the Pennocks and the Gaylords have struck up a furious friendship, and the young people of both families are in the forefront of innumerable social affairs—in most of which Mellicent is left out.

So now you have it—the whole story. And next month comes to Mellicent's father one hundred thousand dollars. Do you wonder I say the plot thickens?

As for myself—you should see me! I eat whatever I like. (The man who says health-biscuit to me now gets knocked down—and I've got the strength to do it, too!) I can walk miles and not know it. I've gained twenty pounds, and I'm having the time of my life. I'm even enjoying being a genealogist—a little. I've about exhausted the resources of Hillerton, and have begun to make trips in the afternoon to an old cemetery copying dates from moss-grown gravestones, and not entirely lose my appetite for dinner—I mean supper. I was even congratulating myself that I was really quite a genealogist when, the other day, I met the real thing. Heavens, Ned, that man had fourteen thousand four hundred and seventy-two dates at his tongue's end and he said them all over to me. He knows the name of every Blake (he was a Blake) back to the year one, how many children they had (and they had some families then, let me tell you!) and when they all died, and why. I met him this morning in the cemetery. I was hunting for a certain stone and I asked him a question. Heavens! It was like setting a match at one of those Fourth-of-July flower-pot sky-rocket affairs. The question was the match that set him going, and thereafter he was a

gushing geyser of names and dates. I never heard anything like it.

He began at the Blaisdells, but skipped almost at once to the Blakes—there were a lot of them near us. In ten minutes he had me dumb from sheer stupefaction. In ten minutes he had made a century run, and by noon he had got to the Crusades. We went through the Dark Ages very appropriately, waiting in an open tomb for a thunderstorm to pass. We had got to the year one when I had to leave to drive back to Hillerton. I've invited him to come to see father Duff. I thought I'd like to have them meet. He knows a lot about the Duffs—a Blake married one, 'way back somewhere. I'd like to hear him and father Duff talk—or, rather, I'd like to hear him try to talk to Father Duff. Did I ever write you Father Duff's opinion of genealogists? I believe I did.

I'm not seeing so much of Father Duff these days. Now that it's grown a little cooler he spends most of his time in his favorite chair before the cookstove in the kitchen.

Jove, what a letter this is! It should be shipped by freight and read in sections. But I wanted you to know how things are here. You can appreciate it the more—when you come.

You're not forgetting, of course, that it's on the first day of November that Mr. Stanley G. Fulton's envelope of instructions is to be opened.

As ever yours,
John Smith.

CHAPTER IX

"Dear Cousin Stanley"

It was very early in November that Mr. Smith, coming home one afternoon, became aware that something very extraordinary had happened.

In the living-room were gathered Mr. Frank Blaisdell, his wife, Jane, and their daughter, Mellicent. Mellicent's cheeks were pink, and her eyes more starlike than ever. Mrs. Jane's cheeks, too, were pink. Her eyes were excited, but incredulous. Mr. Frank was still in his white work-coat, which he wore behind the counter, but which he never wore upstairs in his home. He held an open letter in his hand.

It was an ecstatic cry from Mellicent that came first to Mr. Smith's ears.

"Oh, Mr. Smith, you can't guess what's happened! You couldn't guess in a million years!"

"No? Something nice, I hope." Mr. Smith was looking almost as happily excited as Mellicent herself.

"Nice—nice!" Mellicent clasped her hands before her. "Why, Mr. Smith, we are going to have a hundred thousand dollars!"

"Mellicent, I wouldn't talk of it—yet," interfered her mother sharply.

"But mother, it's no secret. It can't be kept secret!"

"Of course not—if it's true. But it isn't true," retorted the woman, with excited emphasis. "No man in his senses would do such a thing."

"Er—ah—w—what?" stammered Mr. Smith, looking suddenly a little less happy.

"Leave a hundred thousand dollars apiece to three distant relatives he never saw."

"But he was our cousin—you said he was our cousin," interposed Mellicent, "and when he died—"

"The letter did not say he had died," corrected her mother. "He just hasn't been heard from. But he will be heard from—and then where will our hundred thousand dollars be?"

"But the lawyer's coming to give it to us," maintained Mr. Frank stoutly. Then abruptly he turned to Mr. Smith. "Here, read this, please, and tell us if we have lost our senses—or if somebody else has."

Mr. Smith took the letter. A close observer might have noticed that his hand shook a little. The letterhead carried the name of a Chicago law firm, but Mr. Smith did not glance at that. He plunged at once into the text of the letter.

"Aloud, please, Mr. Smith. I want to hear it again," pleaded Mellicent.

Dear Sir (read Mr. Smith then, after clearing his throat),—I understand that you are a distant kinsman of Mr. Stanley G. Fulton, the Chicago millionaire.

Some six months ago Mr. Fulton left this city on what was reported to be a somewhat extended exploring tour of South America. Before his departure he transferred to me as trustee, certain securities worth about \$300,000. He left with me a sealed envelope, entitled "Terms of Trust," and instructed me to open such envelope in six months from the date written thereon—if he had not returned—and thereupon to dispose of the securities according to the terms of the trust. I will add that he also left with me a second sealed envelope entitled "Last Will and Testament," but instructed me not to open such envelope until two years from the date written thereon.

The period of six months has now expired. I have opened the envelope entitled "Terms of Trust," and find that I am directed to convert the securities into cash with all convenient speed, and forthwith to pay over one third of the net proceeds to his kinsman, Frank G. Blaisdell; one third to his kinsman, James A. Blaisdell; and one third to his kinswoman, Flora B. Blaisdell, all of Hillerton.

I shall, of course, discharge my duty as trustee under this instrument with all possible promptness. Some of the securities have already been converted into cash, and within a few days I shall come to Hillerton to pay over the cash in the form of a certified check; and I

shall ask you at that time to be so good as to sign a receipt for your share. Meanwhile this letter is to apprise you of your good fortune and to offer you my congratulations.

Very truly yours,

Edward D. Norton.

"Oh-h!" breathed Mellicent.

"Well, what do you think of it?" demanded Mr. Frank Blaisdell, his arms akimbo.

"Why, it's fine, of course. I congratulate you," cried Mr. Smith, handing back the letter.

"Then it's all straight, you think?"

"Most assuredly!"

"Je-hos-a-phat!" exploded the man.

"But he'll come back—you see if he doesn't!" Mrs. Jane's voice was still positive.

"What if he does? You'll still have your hundred thousand," smiled Mr. Smith.

"He won't take it back?"

"Of course not! I doubt if he could, if he wanted to."

"And we're really going to have a whole hundred thousand dollars?" breathed Mellicent.

"I reckon you are—less the inheritance tax perhaps."

"What's that? What do you mean?" demanded Mrs. Jane. "Do you mean we've got to pay because we've got that money?"

"Why, yes, I suppose so. Isn't there an inheritance tax in this State?"

"How much does it cost?" Mrs. Jane's lips were at their most economical pucker. "Do we have to pay a great deal? Isn't there any way to save doing that?"

"No, there isn't," cut in her husband crisply. "And I guess we can pay the inheritance tax—with a hundred thousand to pay it out of. We're going to spend some of this money, Jane."

The telephone bell in the hall jangled its peremptory summons, and Mr. Frank answered it. In a minute he returned, a new excitement on his face.

"It's Hattie. She's crazy, of course. They're coming right over."

"Oh, yes! And they've got it, too, haven't they?" remembered Mellicent. "And Aunt Flora, and—" She stopped suddenly, a growing dismay in her eyes. "Why, he didn't—he didn't leave a cent to Aunt Maggie!" she cried.

"Gosh! that's so. Say, now, that's too bad!" There was genuine concern in Frank Blaisdell's voice.

"But why?" almost wept Mellicent.

Her mother sighed sympathetically.

"Poor Maggie! How she is left out—always!"

"But we can give her some of ours, mother—we can give her some of ours," urged the girl.

"It isn't ours to give—yet," remarked her mother, a bit coldly.

"But, mother, you will do it," importuned Mellicent. "You've always said you would, if you had it to give."

"And I say it again, Mellicent. I shall never see her suffer, you may be sure,—if I have the money to relieve her. But—" She stopped abruptly at the sound of an excited voice down the hall. Miss Flora, evidently coming through the kitchen, was hurrying toward them.

Jane—Mellicent—where are you? Isn't anybody here? Mercy me!" she panted, as she reached the room and sank into a chair. Did you ever hear anything like it in all your life? You had one, too, didn't you?" she cried, her eyes falling on the letter in her brother's hand. "But 'tain't true, of course!"

Miss Flora wore no head-covering. She wore one glove (wrong side out), and was carrying the other one. Her dress, evidently donned hastily for the street, was unevenly fastened, showing the top-most button without a buttonhole.

"Mr. Smith says it's true," triumphed Mellicent.

"How does he know? Who told him 'twas true?" demanded Miss Flora.

So almost accusing was the look in her eyes that Mr. Smith actually blinked a little. He grew visibly confused.

"Why—er—ah—the letter speaks for itself, Miss Flora," he stammered.

"But it can't be true," reiterated Miss Flora. "The idea of a man I never saw giving me a hundred thousand dollars like that!—and Frank and Jim, too!"

"But he's your cousin—you said he was your cousin," Mr. Smith reminded her. "And you have his picture in your album. You showed it to me."

"I know it. But, my sakes! I didn't know he knew I was his cousin. I don't s'pose he's got my picture in his album! But how did he know about us? It's some other Flora Blaisdell, I tell you."

"There, I never thought of that," cried Jane. "It probably is some other Blaisdells. Well, anyhow, if it is, we won't have to pay the inheritance tax. We can save that much."

"Save! Well, what do we lose?" demanded her husband apoplectically.

At this moment the rattling of the front-door knob and in imperative knocking brought Mrs. Jane to her feet.

"There's Hattie, now, and that door's locked," she cried, hurrying into the hall.

When she returned a moment later Harriet Blaisdell and Bessie were with her.

There was about Mrs. Harriet Blaisdell a new, indescribable air of commanding importance. To Mr. Smith she appeared to have grown inches taller.

Well, I do hope, Jane, now you'll live in a decent place," she was saying, as they entered the room, "and not oblige your friends to climb up over a grocery store."

"Well, I guess you can stand the gro-

cery store a few more days, Hattie," observed Frank Blaisdell dryly. "How long do you s'pose we'd live—any of us—if 'twasn't for the grocery store to feed us? Where's Jim?"

"Isn't he here? I told him I was coming here, and to come right over himself at once; that the very first thing we must have was a family conclave, just ourselves, you know, so as to plan what to give out to the public."

"Er—ah—" Mr. Smith was on his feet, looking somewhat embarrassed; "perhaps, then, you would rather I were not present at the—er—family conclave."

"Nonsense!" scouted Frank Blaisdell.

"Why, you are one of the family, 'seems so," cried Mellicent.

"No, indeed, Mr. Smith, don't go," smiled Mrs. Hattie pleasantly. "Besides, you are interested in what concerns us, I know—for the book; so, of course, you'll be interested in this legacy of dear Cousin Stanley's."

Mr. Smith collapsed suddenly behind his handkerchief, with one of the choking coughs to which he appeared to be somewhat addicted.

"Ain't you getting a little familiar 'dear Cousin Stanley,' Hattie—" drawled Frank Blaisdell.

Miss Flora leaned forward earnestly. "But, Hattie, we were just sayin', 'fore you came it couldn't be true; that it must mean some other Blaisdells somewhere."

"Absurd!" scoffed Harriet. "There couldn't be any other Frank and Jim and Flora Blaisdell, in a Hillerton, too. Besides, Jim said over the telephone that that was one of the best law firms in Chicago. Don't you suppose they know what they're talking about? I'm sure, I think it's quite the expected thing that he should leave his money to his own people. Come, don't let's waste any more time over that. What we've got to decide is what to do. First, of course, we must order expensive mourning all around."

"Mourning!" ejaculated an amazed chorus.

"Oh, great Scott!" spluttered Mr. Smith, growing suddenly very red. "I never thought—" He stopped abruptly, his face almost purple.

But nobody noticing Mr. Smith. Bessie Blaisdell had the floor.

"Why, mother, I look perfectly horrid in black, you know I do," she was wailing. "And there's the Gaylord's dance just next week; and if I'm in mourning I can't go there, nor anywhere. What's the use in having all that money if we've got to shut ourselves up like that, and wear horrid stuffy black, and everything?"

(Continued in January 19th issue.)

M. A. C. DISTRIBUTES SPECIAL SOIL TESTING OUTFIT

A SPECIAL soil testing outfit, which makes it possible for farmer to know just where lime is acidity, and thus determine the line requirements of their lands, is being assembled and distributed on a "cost" basis by the Michigan Agricultural College department of soils, according to the announcement of Dr. M. M. McCool, head of the department.

The outfit, going under the name of Soiltex, is being furnished to farmers of the state on request. Directions for applying the test and enough material for two hundred individual tests are included in the outfit.

The Soiltex method presents a very simple way to determine the acidity of the soil. A few drops of liquid from a small can are poured over a small quantity of soil which has been placed on a piece of special paper, and the color of the liquid as it runs off determines the degree of acidity in the soil tested.

This method was perfected by a member of the soils staff at the Michigan Agricultural College some months ago, and has proven to be so effective that the college has determined to distribute the outfits at cost to the farmers of the state.

The use of this testing method will make possible the efficient application of lime on a large scale in Michigan. Many soils need lime or marl applications to overcome acidity, while others need no lime or only a relatively small amount. Only by careful and accurate test can the farmer know just where lime is needed. The Soiltex method of testing is expected to take the guess out of the work and to result in greater efficiency and economy in the application of lime.—R. C. Groesbeck, M. A. C. Correspondent.

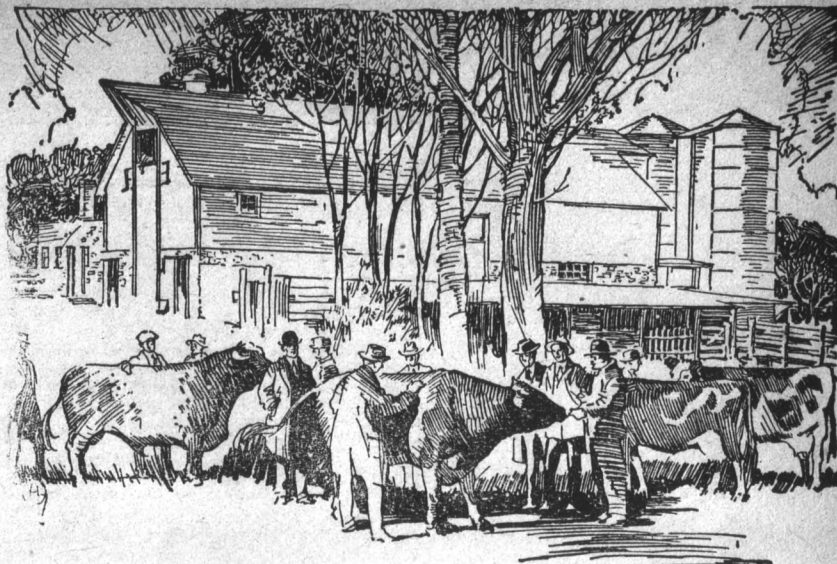
The Scotch of It

Sandy had just met his gtr. at the end of the street, where she was waiting for him. She was looking into a confectioner's window when Sandy made his presence known by remarking:

"Weel, Jennie, what are y' gaun to have the night?"

She, not inclined to ask much, replied: "Oh, I'll just tak what you'll tak, Sandy."

"Oh then, we'll tak a walk," said Sandy, as he led her away.—Pearsons Weekly.



Cattle and the Soil

MEN who were brought up on farms in the very districts served by the New York Central Lines now compose the Agricultural Relations Department of this railroad system.

A thorough knowledge of the farmers' problems as well as those of the railroad enables these men to work for the common good of these two interdependent interests.

To improve soil conditions the Agricultural Relations Department has established 525 limestone demonstrations in cooperation with county farm bureaus and experts from various colleges of agriculture.

The department has materially assisted in establishing a Better Sire Campaign for the introduction and breeding up of dairy cattle.

It is the task of the department to foster co-operation between agriculture and transportation and to bring an ever-better service to the farmers of the country.



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WHEN WRITING TO ADVERTISERS MENTION THE M. B. F.

O, THAT I WERE A BIRD

O, THAT I were a bird,
I'd sing the sweetest songs ever
heard.
Thus cheer the world as I go by,
And all trouble defy.

Were I a pretty flower,
I'd not waste e'en one hour,
I'd try some heavy heart to cheer instead
And so make sure the joy ahead.

But only a mortal am I,
I cannot scent the wood nor fly,
So I content must be
To do what is required of me.

—Written by Orville H. Trueblood, Pe-
wamo, Michigan, for the Children's Hour.

DEAR Girls and Boys: How do you like the poem printed above? It was composed by Orville Trueblood, a member of the Children's Hour for some time past, and I think it beautiful. There seems to be many poets among the readers of this page, as I have received several requests to have a poetry contest to see who could write the best poem. I am planning on holding such a contest in the near future so sharpen your pencil, get some paper ready, put your thinking-cap on, and see what kind of a poem you can compose.

Have you read our story, "Martha Curlylocks' Party" appearing on our page, this issue? I want to print one in each issue, when space permits, this winter. If you do not like the kind of stories printed just write and tell me and I will try some different ones. This is your department and I want to print only things that are of interest to you.

—UNCLE NED.

THE SUN AND THE BAT-WOMAN

ONCE Sun, wanting to go to bed behind the mountains, got lost in the cliffs. It was getting late. Bat-woman was already out, and Sun begged her to show him the way.

"Very well," said the Bat-woman, "but I want a reward. I have no feathers on my wings and the birds laugh at me. Give me some of the bright-colored feathers from your sunset sky."

"I will do that," said Sun, "but do not go too near my Earth-brother, Sunflower, while he is open. He is jealous."

So Bat-woman took the colored feathers from the sky and made herself beautiful. But she got vain and flew over the Earth while Sunflower grew angry.

"Feathers are not for you," he said, and he made a Magic.

At once all the feathers dropped off Bat-woman's wings and flew away as little birds. We call them Orioles, and that is why they are colored like the sunset.

Those who are vain will lose what has made them vain.

OUR BOYS AND GIRLS

Dear Uncle Ned:—Wonder if you would mind if I asked for permission to join your merry circle? I thought maybe if I wrote on Christmas day, my letter might have a better chance of escaping the wastepaper basket. What do you think about it? I certainly hope everyone has had one of the merriest Christmases. This day always makes me think of the Christ child in the manger, and the angels words, "Glory to God in the Highest, On earth peace, and good will to man." There has been speeches of patriotism, wonderful, and eloquent sermons, but I do not think, in all the world, there has ever been any words more beautiful than those spoken by the Her-ald Angel Gabriel, at the birth of Christ, except maybe, the words He Himself spoke just before his death. I expect I'd better be describing myself, or you won't know what to think about me. I'm four feet eight inches tall, rather dark blue eyes, and hair that is about the color of a ripe chestnut, (rather curly), fourteen years of age, and sticky just now with Christmas candy. Uncle Ned, why could we not have a poetry contest? I have composed some verses, but I cannot draw worth anything. I'd much rather sit down and compose a piece of poetry, or read a good book, than get Algebra! (I happen to be in the ninth grade). Is there any that disagree with me? Uncle Ned, please tell me what you think of the Campfire Girl movement, won't you? I should be very much pleased if some of the cousins would write and give me their opinion upon it. Will answer all letters received. Will close, wishing to everyone the very happiest of New Years.—Iola Hardy, Mayville, Mich. —I think we can have a contest on poetry composed by the cousins, if there are many interested. We'll try one in the near future. As to the Campfire Girls, I think it is a very nice organization and any girl, city or farm, will benefit

The Children's Hour

by belonging. There are many readers of our page who belong and will write you all about them. Come again, Iola.

Dear Uncle Ned:—Oh, no, I am not a new one. I have written before, but it has been two or three years since. I love to read the Children's Hour and say, Uncle Ned, you have a lot of interesting Cousins, haven't you? I like to read about those trips some of the cousins take and am sorry I haven't one to describe. I would like to know what the cousins are planning to do when they grow up. I would like to be the Governess of small children or else play in some orchestra in a theatre. Uncle Ned, I'd like your job too. I am just sweet sixteen, (?) going on seventeen. Oh, yes, the answer to Lloyd Laubaugh's riddles are: 1. A watch. 2. Wet. Am I right Lloyd? Well Uncle, my letter is going to take up too much room if I don't stop soon so will say "So long" 'till next time.—A Girl from Greenville, Michigan.

Dear Uncle Ned:—My father has taken the M. B. F. for about three years now, and this is the first time I have attempted to write, so please don't discourage me the first time. I guess I had better describe myself, but don't anyone get scared! I am—well I guess I won't tell my age. I'll let you guess that, but I am between the age of 12 and 20 years. I am about five feet three inches tall, and I am a blonde, but I haven't bobbed hair, although I have nothing against it. Anyone guessing my correct age will receive a letter from me. I am attending high school and I am in the tenth grade. I like typewriting and shorthand the best of all subjects. I went through Mt. Clemens this summer when I was going to Canada. We drove through to Canada with an automobile and we also drove up in the northern part of Michigan, but I don't want to take the space to tell you about it. I have a brother in Honolulu. He is in the U. S. Army. He sent us some pictures from there and they sure are some lovely scenes. Well if I don't stop there won't be any room for anyone to write, that is, if this letter is printed, which I hope it is. Will some of the boys and girls write to me? I will try and answer all letters received. From your niece,—Sadie London, 66 Hanover St., Battle Creek, Michigan.

—Come again Sadie, and do tell us about your trip. The cousins will be interested I am sure.

Dear Uncle Ned:—I have been thinking about joining your merry circle for a long time, but have never found time to write, for I love books, as I see lots of the cousins do, and most of my spare time is spent in reading. My favorite authors are Zane Gray and Mary J. Holmes, and lots of others of which I could not tell which I like best. I would like to hear from Josephine Dannon very much, and would answer her letters if she would care to write, and the others too. Perhaps I had better tell you how I look. Well, I am about 5 ft. 11 in. tall, weigh about 82 pounds,

have brown bobbed hair, brown eyes, and fair complexion. I am very small for my age, for I have a sister who is exactly as tall as I am and she is only 11 while I was 14 the 13th day of May. Have I a twin? If I have tell me, and I will write to him or her. I know the answer to Erma Lee Lookwell's riddle, it is a threshing machine. I am glad you said we might put in poetry Uncle Ned, for I like it. I will put in some riddles, and the one who guesses the most will receive a letter. Why is a schoolmistress like the letter "C"? Why is a policeman like a rainbow? What is the difference between stabbing a man and killing a pig? I am in the 8th grade, and live a half a mile from school in the country on a 205-acre farm. I have three brothers and two sisters alive and one dead. Her name was Cora May. I think it was quite pretty, don't you, Uncle Ned? Hoping to hear from some of the cousins soon, I will close. Your loving niece,—Bernice Brockway, R. 3, Jackson, Michigan.

Dear Uncle Ned:—I have just finished reading the Children's Hour and decided to write a few lines. I read Helen Limmer's letter and she said her birthday was the 31st of May, just two days later than mine. I think it is very nice in putting a puzzle in our part of the paper every issue. As I have written before I will not have to describe myself. I'm a freshman this year, but I do not like school. It is raining here tonight, and as I was lonesome, thought I would write. Hope this escapes the waste paper basket. I must close, hoping to hear from the boys and girls. I will answer all the letters I can. Your niece,—Lena M. Ables, R. 3, Box 33, Montgomery, Michigan.

Dear Uncle Ned:—May I join your merry circle? I live on a ninety-eight acre farm. As other children describe themselves, I will also. I weigh sixty four pounds and am four feet nine inches tall. I have brown bobbed hair, blue eyes. I will be eleven the 1st day of February. Have I a twin? I wish you all would write to me as I am glad to receive letters. I have not read the Children's Hour very long, but found all the old papers I could. I hope this will miss the waste paper basket. I will give a riddle. If a cord of wood comes to \$10, how much will a ton of coal come to? This is getting pretty long for the first time. Your loving niece,—Reva Covert, R. 5, Ionia, Michigan.

Dear Uncle Ned:—I have been reading the M. B. F. for quite a while. I am 13 years of age and weigh 135 pounds, and my height is five feet ten inches, and have dark brown bobbed hair, and my eyes are gray. I am in the seventh grade. My birthday is October 18th. I hope my letter escapes the waste paper basket. I have written once before but it wasn't in print. For pets we have six pigeons, six cats, and one dog. We are getting ready to have a Christmas program. I will close.—Mae E. Jury, St. Johns, Michigan.

Martha Curlylocks' Party

By Helen Gregg Green

LITTLE Dorothy Thomas owned the loveliest families of dolls. They were the Kewpie family, the Curlylocks family, the Podie-Wodies and a family who looked so much like real people. Dot called them the Smith family.

In the Kewpie family were Mr. and Mrs. Kewpie and four small Kewpies. The Curlylocks family consisted of Mother and Father Curlylocks and one beautiful daughter, Martha, who had long golden curls and big blue eyes; the Podie-Wodies were funny little dolls made out of clothes pins. There were Mr. and Mrs. Podie-Wodie and five Podie-Wodie children. Mrs. Smith, who was a widow, had two sons and a daughter, who wore clothes that looked very much like those of Dot and her small brother Tommy. In fact Dorothy often made the clothes of the Smith family from scraps left by the seamstress.

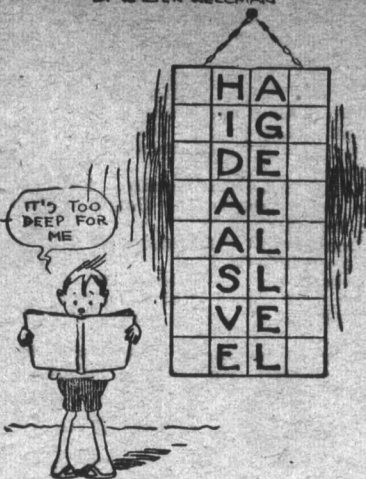
Dorothy enjoyed playing with her families of dolls; but on the day I am going to tell you about, my dears, she was a very tired and sleepy little girl. So she had not played long till she fell fast asleep.

And while she slept, all the dolls decided to have a birthday party for Martha Curlylocks who was that day two years old. So invitations were sent out by Father and Mother Curlylocks to all the other dolls. The party was to be a dinner party, so the dolls were very eager to go. Because Mrs. Curlylocks was noted for having a good cook, whose name was Mamie Stocking Face, because she was made out of an old black stocking. Mamie had a daughter, Sally, who served Mrs. Curlylocks' fine dinners.

Promptly at six o'clock the guests started to come. For the dolls all knew it was very impolite to be late at a dinner party.



FAMOUS AUTHORS



Print the name of a famous poet in the first upright column, and the name of a famous writer of prose in the last column and have eight correct words of four letters as a result. Who are they?

Answer to puzzle in last issue: G plus SPEAR plus BLIND plus ACE plus TON minus SEAL minus BAG minus D=PRINCETON.

Mr. and Mrs. Curlylocks and Martha greeted the guests after Sally Stocking Face had met them at the door and sent them to Martha's pretty blue and white room to lay aside their wraps and hats.

Mr. and Mrs. Podie-Wodie brought a friend of theirs, Mr. Teddy Bear from Bearville. Mr. Teddy Bear was introduced to Martha Curlylocks. He had met the other guests at a party given by Mrs. Podie-Wodie in his honor. Martha had been ill and could not go.

"Mr. Teddy Bear", said Mrs. Curlylocks, "I want you to meet my daughter, Martha". Mr. Teddy Bear and Martha cordially shook hands, and Mr. Teddy Bear told Martha how glad he was to know her. To which Martha replied, "And I am happy to meet you, Mr. Teddy Bear." And began asking him about Bearville, for she knew to make a stranger feel at home, you should talk to him of the things and places he knows about.

Soon the dinner bell rang and all arose to go to the table. The gentlemen dolls stood back and the lady dolls went first. At the table the gentlemen dolls seated the lady dolls.

First Sally Stocking Face brought in a cup of bouillon for each guest. The guests all waited for the host and hostess to start eating. When they began, the guests took up their bouillon spoons and put the side of the spoon farther away into the cup and sipped the good bouillon Mamie Stocking Face had made, always from the side of their spoon. For, my dear children, they were very polite dolls, I assure you.

The next course was very good and the dolls ate heartily. They all kept their knives on the edge of their plates, except Timmy Podie-Wodie, who was a very impolite doll. He even put his knife in his mouth, which made his poor mother nearly ill with shame.

The dolls held their knives and forks correctly when cutting the good meat, by placing the first fingers on the knife and fork and keeping the prongs of the fork down. The thumbs and the three other fingers remained at the side of the knife and fork. And the elbows were kept close to the dolls' sides. Mr. Teddy Bear's paws could not hold as well as the fingers of the dolls.

Only one piece of meat was cut at a time by the dolls and Mr. Teddy Bear, and only one bite of bread was spread with butter at one time. But Timmy Podie-Wodie cut all his meat at once, and children, would you believe it, he spread a whole slice of bread and even made a terrible noise when he ate. But you could not hear the other dolls eat their dinner, they ate so quietly.

When they wanted anything at the table, they said, "Please pass the celery", or whatever they wanted. And when it was passed, they said "Thank you", very politely.

Mr. Teddy Bear told them of Bearville and was very pleasant and entertaining. He said he had two fine children and a pretty wife. Mr. Teddy Bear noticed the nice table manners of the dolls. He saw that they unfolded half of their large nap-

kins and that the young dolls asked the older dolls if they could have food before they served themselves. He also saw that the young dolls sat erect and did not handle their knives and spoons or drum on the table, or fidget, until served.

So Mr. Teddy complimented the dolls, and when told by the mothers of the dolls, they ate just as nicely at home, he said, "That is right. I read once, 'Eat at your own table as you would eat at the table of a king', and that is the way I have taught my little bear children to do."

After the meat course was served, a pretty big salad was passed. All the dolls knew to use the salad fork for this but Timmy Podie Wodie who used his spoon. And who did not know to eat with his mouth shut as much as possible.

Next the most wonderful pink and white ice cream and cake was brought in by Sally Stocking Face. All the dolls liked this course their

best. As perhaps you would, too, children dear!

When the dinner was over, Sallie Stocking Face passed the finger bowls. The dolls dipped their fingers into the bowl and dried them on their napkins. Poor Mr. Teddy Bear got his paws quite damp and had a hard time getting them dry.

After dinner the dolls played games and Martha Curlylocks sang a beautiful song, "I Love to be a Doll". Mibbsie Smith played the piano and the small children were quiet and good, for they knew to talk while any of the dolls was playing or singing would be very impolite.

At ten o'clock the guests left, after thanking Mr. and Mrs. Curlylocks for the pleasant evening. As the dolls were going out the door, Dot awoke, and rubbed her eyes and looked about her. She expected to see the dolls walking out, talking and laughing. Instead, they were just as she had left them and not dressed party clothes at all!

FRUIT AND ORCHARD

Edited by FRANK D. WELLS

FALL BEARING STRAWBERRIES FOR THE HOME GARDEN

WHILE the ordinary summer varieties of strawberries must be cared for over a year before a crop has been harvested; the so-called everbearing or fall-bearing varieties can be fruited within four months after the plants are set, and will remain in bearing for two or three months and sometimes afford a strawberry shortcake for Thanksgiving even in Michigan. The same plants will produce a crop of fruit the following June, and with a little care will bear the second fall.

Although the variety known as "Progressive" seems to be best adapted for general cultivation, the "Superb," "Francis," and other sorts do well under favorable conditions.

A fairly heavy and moderately rich sandy loam seems best adapted for everbearing varieties. If too rich, the plants will run to vines, instead of fruit; while if too light and poor, a weak growth will be made. A soil that is naturally moist should be chosen, or arrangements made for watering the plants in dry weather.

The plants may be set two by four feet, if to be worked with a horse; or as close as one by two or three feet in a small garden. In very close culture, they may be set so that there will be three rows with the plants one foot each way, with a walk two feet wide between the plants.

The plants should be given frequent cultivating and hoeing, taking pains to stir the soil after every rain. As the blossoms appear, they should be pinched off, and this should be kept up until the plants have made a strong growth. This may be as soon as the middle of July with early set plants; or as late as August 15th when they are planted late. In three to four weeks after the picking of the blossoms has stopped, the berries will begin to ripen, and can be picked two or three times each week until November 1st, or even later in some seasons.

The following spring they will need cultivation and hoeing, cutting out some of the plants, if too thick, and they will produce a very satisfactory crop in June. They will again fruit during the fall months, but it is more satisfactory to start a new plantation each spring for the fall crop.

While it is desirable to set out the plants as early in the spring as the ground can be worked, the plants will do well if put out any time before June first.—L. R. Taft, State Inspector of Orchards.

FLYPAPER AS A SUBSTITUTE FOR GRAFTING WAX

I have been advised that tanglefoot flypaper is a satisfactory substitute for grafting wax.—V. C. S., Paw Paw, Mich.

Anything which will keep the cut surfaces from drying out and oxidizing tends to increase the chance of a graft to this extent, then tanglefoot flypaper would be valuable, in as much as it is more or less waterproof. In the same way a bottle of

clay such as was used by the old timers is also helpful.

In the case of tanglefoot, however, I have seen serious injury to bark from the use of this material. It is my recollection that the manufacturers advise that the trees be wrapped with paper before the tanglefoot is applied. Consequently, I should expect unfortunate results were any of the tanglefoot material to come in contact with cut surfaces and any graft to which it were to be applied should have a preliminary wrapping of some other material. Consequently I can see no reason for using tree tanglefoot either with or without the paper as a wax for grafting. Undoubtedly, there have been cases where it has been used and the grafts have lived. I have also seen grafts live without any wax or any protection. However, that is not a sign that they should be treated that way.—F. C. Bradford, Department of Horticulture, M. A. C.

NOTES AND COMMENTS

A cranberry bog is profitable, but expensive to make. The turf must be removed and the ground covered deep with sand. Besides, there must be some means of flooding. Now is the time for some wizard to evolve a plant that will grow without these conditions. Then this fruit may be brought within the reach of all.

Interest in the huckleberry seems to be on the increase. Suitable localities are limited, so at present there is no liability of an over supply of cultivated product. At the same time the marshes are disappearing. The future for this luscious fruit looks bright.

A nursery man some years ago ran short of blackberry stock, so dug up a quantity of wild plants and filled his orders. In due time he began to receive letters from his customers, all pleased with the size, quantity and quality of the fruit, best they had ever seen. It is a matter of common opinion that the blackberry has not been benefited by improvement, so called.

In days of old, not so very ancient neither, the owner of a Duchess apple orchard was reaping a harvest. Now he is lucky to give the fruit away. There are two reasons for this. One is overproduction. Too many trees have been planted. The other reason is discrimination. The fruit is not of high quality and better varieties are taking its place. The public is learning.

The Wildgoose is the name of a family of plums native to America, comprising many varieties. It is also the name of one variety in this group, which is unfortunate, since it has resulted in much confusion. The Wildgoose is hardy in Southern Michigan. The fruit is early and highly colored, but these are insufficient reasons for growing it in place of the later, but really good varieties.

A late spray for the apple and pear should not be overlooked. During the last of August the Bodding moth is busy laying her eggs for the late brood. These eggs are deposited on leaves as well as fruit, but the worm crawls from the foliage to the apple, feeding on the way. An application of lead arsenate will settle its stomach for all time and will keep the fruit free from scab, unless there is already some present. These late sprays are of more importance than many seem to suppose. There is no economy in neglecting them.

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HAVE YOU POULTRY FOR SALE?

AN AD IN THE MICHIGAN BUSINESS FARMER WILL SELL IT!

MY MOTHER-IN-LAW

MY Mother-in-law came to live with us Upon one cold winter day. We told her she need not work To wear herself away.

But Mother with a willing hand Would work to "beat the band," And soon we both forgot ourselves, As young folks oft-times do, And we just kept mother busy Working from morning until two.

She carried in the water, And she carried in the wood, So we just kept Mother busy Doing everything she could.

Until Mother grew old and feeble And her hair has turned to gray, And upon her death bed, We saw her pass away.

So upon the following years, As they passed day by day, We never knew what Mother did— Until she had passed away. —Written for The Business Farmer by Chas. Hewlett.

THE NEW YEAR

EACH of us is sentenced to death. The time and the place is the only mystery.

Recently there were two men prominent in public life who received their doom and a definite time limit.

One of these was a distinguished surgeon who served in the war and then gave his best to scientific laboratory experimentation. The day came when he knew that he had probably three months longer to live. Through the X-ray he was relieved of suffering, and this is what he did with all that was left to him of life.

He sent a note to his friends saying: "My wife and I are retiring. Do not come to us unless we send for you."

They measured the value of every hour. They lived not as one dying, but in the resolution to make each day count for all that it could hold. Favorite operas and concerts were attended—good plays they both would enjoy. They read together the verse and essays which both of them had loved. Occasionally they entertained the friends who really counted, and they visited the homes of those who were dear to them.

A lifetime was enjoyed in those weeks. It was a little less than three months, but every day had been used to its utmost.

It takes a high soul and a strong character to face the end of the road this way. It is a lesson for each of us who is tempted to waste priceless time.

The other man who knew that his days were numbered accepted his fate as a good soldier, but without the philosophy which triumphed over death. He couldn't tell his wife; he was afraid to hurt her. He kept it a secret from his associates. Only his physicians and two friends who met him in the weak hour of his first shock knew the limit of his life.

This man plunged into his work with renewed effort, resenting any suggestion of illness. He projected plans for his corporation and worked intensely on programs which would not come to light until long after he had passed out of life.

In his work he lived as one whom death could not touch. His one desire was that no one should treat him as a dying man, but that he should live with the living on an equal footing. When death came his business affairs were in order. Life had been a day's work well done.

With the surgeon life had been a day's work—and then a happy evening before night came on.

What would you do if you knew how long you had to live?

The New Year is at hand. January first is almost any other Winter day—except that it is a beginning. It is a reminder that we too may begin.

What will we do with this New Year: live it every day and every hour, or work it, or loaf it along?

Have you thought what a wonderful place the world might be if we all lived each day as if it were our last chance to make memories for those we meet and those we love?

EATING FOR HEALTH—WINTER VEGETABLES

ENTHUSIASM for vegetables, although well cultivated and highly developed during the Summer months, may wane with the coming of Winter and the passing of

The Farm Home
A Department for the Women

Edited by MRS. ANNIE TAYLOR

DEAR FOLKS:—Here we are at the beginning of a New Year. What are you going to do as the woman of the household? Are you going to make the home life more cheerful and full of love and help solve the financial problem with John and for all concerned? It has always been said that woman's intuition is uncanny. If you feel you possess any of this virtue, assert it this coming year. Help in every way by scheming and planning the future for you and yours somehow. This is a woman's job after all. I hardly feel it is necessary to remind you of the wonderful value companionship and partnership means to every married couple and their home. The women on the farm are close to their husbands in work, more so than in any other work in life, and I can hardly say more, but if there is any chance for improvement, let us resolve this year to make it a better world to live in. Any problem that you feel I could help you with or answer, do not hesitate to write me. I am willing and ready to help you. What I do not know I can find out. Hoping to hear from you often and wishing you all the happiest and most prosperous year, I am,

*Your Friend,
Mrs. Annie Taylor*

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

the garden and market supply of fresh lettuce, chard, tomatoes and other vegetable favorites. Lest this happen, one may well adopt the truck-growers' highly educational slogan, "Eat vegetables for vitamins," as a motto for the Winter's diet.

A safe rule to follow is to serve two vegetables other than potatoes daily. In laying the foundation menus for a month, canned tomatoes may be slipped in at least as often as twice a week without fear of wearying the family appetite.

Fortunately the supply of leafy vegetables does not stop with the passing of Summer. Such leafy vegetables as cabbage and celery and onions keep well in storage and afford valuable minerals as well as vitamins.

In order to preserve as much as possible of their valuable food elements, these vegetables should be cooked only enough to make them tender. Cabbage, for instance, requires only twelve to twenty minutes of cooking in uncovered salted water. Vegetables of any kind possess most value when eaten raw. Cabbage shredded or shaved is an excellent salad vegetable and may be eaten as cole-slaw or combined with other foods in salad mixtures. It adds bulk and crispness as well as minerals and vitamins to the diet, and a cabbage salad of some kind might well occupy a place on the menu as often as twice a week.

Carrots, beets, turnips and squash are other Winter vegetables, with carrots probably in the lead as far as food value goes. These vegetables may be used to fill in the odd days in the menu. Carrots are particularly healthful if eaten raw. They are easily digested if grated or finely ground and may be used in salad in combination with other vegetables or with pineapple, or grated cheddar or American cheese or cottage-cheese.

One excellent way of serving Winter vegetables without great loss of value in cooking is to grind or chop finely the raw vegetables such as carrot, onion, cabbage or turnips and add them to a clear soup made of chicken or beef stock. When finely ground, the vegetables need only a few minutes' cooking, ten or fifteen being sufficient.

The knowledge of successful meth-

ods of food preservation has made a variety of commercial or home canned vegetables available for food throughout the year. It is especially important that the use of canned vegetables as "greens" be included in the diet.

All vegetables contain many of the tonic and laxative properties included in that dosage that in former years was a harbinger of spring. As a sign of the times and a better knowledge of nutrition and right eating for health, it is interesting to note that "You need a spring tonic for that tired feeling" has changed to "Eat vegetables for vitamins."

FOOD CALENDAR FOR JANUARY

This is a good month to—

Use citrus fruits and cranberries plentifully.

Begin making or using whole-wheat bread.

Use canned vegetables to alternate with those from winter storage. Serve canned tomatoes twice a week.

Have stewed dried fruits often.

Use fireless cooker for hot breakfast cereals.

Add a few chopped dates to the porridge just before serving.

Think of all the hot desserts you know—rice pudding, bread pudding, apple betty, warm gingerbread, fresh pies—and get some fruit into them if possible.

Make puddings or muffins of left-over breakfast cereal, adding a few nuts, raisins or currants.

Keep up the salad habit. There are dozens of cabbage, carrot, celery, apple and other winter salads.

Remember a hot dish for the children's school lunch.

Take time to measure ingredients accurately, follow directions carefully and improve the standard of the home-made products.

FOR THE HOME-SEWER

WHEN making buttonholes in very soft or thin material, rub a little library paste on the wrong side of the goods and let it dry before cutting the buttonholes. This gives a firm surface to work on, and the paste will not discolor the most delicate fabrics.

In working an eyelet leave the end of the thread long enough to go around the eyelet hole and work over

it. It thus pads and makes a firm, even eyelet.

When you wish to put wide lace on a luncheon-cloth or a large centerpiece, try rolling your lace, beginning at one end and rolling very tight. Now tie with a clean cord in three or four places, wet thoroughly one inch at bottom. When this dries, you will find your lace will fall in a graceful circle ready to be sewed on your centerpiece.

Long narrow belts are easily turned by a small safety-pin stuck in one end and run through to the other end.

If the inside belting of your skirt has lost its stiffness, try dipping it in cold starch and press with a hot iron. It will renew it.

To iron a round centerpiece so that it will not pucker in the center, always iron from the center to the outside edge.

At the extreme right end of the ironing-board fasten a tiny writing-pad, a pencil and a paper of pins. As an article is ironed, record missing buttons and tears on a slip and pin to the upper side of the garment when it is finally folded. No need to unfold any article to see if it needs mending.

THE RURAL LIBRARY IN WINTER

NOW is the time for the teacher to make the very best use of the rural school library. It is useless to expect much reading in rural communities during the active farming months but in the long evenings of winter there are two or three hours after supper that country folks have for leisure. Parents and children will welcome good books and magazines. The many fine books of animal stories are especially interesting and appropriate now. The hunting seasons are on and through the natural interest roused in wild life, there is an opportunity to teach the boys and girls about the animals of their own and other countries, kindness to all folk of forest and field, and a better way of treating our wild friends than killing them.

The holiday seasons bring with them special and charming editions of old books that will tempt children to read when they otherwise would not, as well as large numbers of new and worthwhile books and stories. In the winter, too, the Congress is usually in session and people's minds are more easily turned toward questions of national and State-wide interest. There is better opportunity to teach good citizenship, patriotism, and loyalty through well-selected timely articles on current thought and movements. Moreover, in rural sections such local governmental activities as grand jury and town meetings, sessions of county courts, and meetings of tax-levying bodies are usually held in the winter months when the farmers are not so busy, and the rural library may be well used to give help and information along these lines of civic duty.

Personal Column

Playing Checkers.—Will you please publish or send me directions for playing checkers, as some people say when you put a checker in the king row, you have the privilege of jumping right out again before the other person moves, and I would like to know if that is right or not. Thanking you in advance.—A subscriber.

—I have played checkers a great deal and never knew that any player could move more than once at any play of the game.

The Duty of Casting an Intelligent Ballot.—Every country citizen should aid in the arousing of men and women to a full sense of their duty as good citizens, in casting the ballot, and in such manner and unity as shall result in securing good and efficient government, such that statesmen will rightly interpret and politicians will not regard.

One of the leading questions, at this present time, is that of temperance and prompt and efficient expressing of public sentiment, regarding this important matter is essential if temperance is to be made to continue effective.

Woman has been given the franchise and with it is coupled the duty for its proper use but it is much to be regretted that so large a portion of American womanhood fails to recognize their duty in the matter of casting the helpful ballot whenever the opportunity is presented.

History tells us that the neglect or wrongful use of the ballot-box has resulted in recourse to the terrible cartridge-box but no such sad condition will be ours if you and I, with all of our fellow citizens do our full and fearless

OUR PRAYER FOR 1924

Keep us, of God, from pettiness; let us be large in thought, in word, in deed.

Let us be done with fault-finding and leave off self-seeking.

May we put away all pretense and meet each other face to face—without self-pity and without prejudice.

May we never be hasty in judgement and always generous.

Let us take time for all things; make us to grow calm, serene, gentle. Teach us to put into action our better impulses, straightforward, and unafraid.

Grant that we may realize it is the little things that create differences; that in the big things of life we are at one.

And may we strive to touch and to know the great, common woman's heart of us all, and, oh, Lord God, let us forget not to be kind!

—Mary Stewart.

The above "Collect" has been adopted by the National Federation of Women's Clubs.

duty in support of right and righteousness. Will you do this? What say, you fellow citizens? The fact is, patient as a people, we are too much "wrapped up" in securing financial possessions and well for us, will be, if we give more thought and heed to our duty, as good citizens of our state and nation.

The present troubled condition in Europe should cause every American, who has true love of country, to most carefully consider the obligations which accompany citizenship and then loyally decide to perform those obligations.—J. T. Daniels, Ex-Pres. of Michigan State Association of Farmers' Clubs and 83 years old on this pleasant "Christmas Day."

Superfluous Flesh.—In the women's department of the Business Farmer I saw where Mrs. F. is asking for some information regarding the reduction of superfluous flesh. I have been dreadfully afflicted too and could find no relief until a couple of months ago and now I am losing steadily, and feel fine. Please either send me Mrs. F's address or publish this in the woman's department.

Everyone knows that milk is a perfect food so will not be afraid to try this remedy. One day eat anything you wish and as much as the appetite desires. It is best, however, to avoid sweets and starches though not positively necessary. Do not lunch between meals. The next day take three meals (positively without lunching between meals) but make those three meals entirely of skimmed milk. Take all one wishes but be sure that all cream is removed. In doing this every alternate day, eating one day and the next day using skimmed milk, a gradual reduction will take place. The milk furnishes all the body needs except fat and what is needed of that must be used from the surplus of the body. I am losing from one-half to one pound a week. This is better than a rapid reduction as the waste is more easily removed and one will feel better during the period of reduction than with a more rapid loss.—An Interested Reader.

Burned Out.—I have several old quilts that are worn quite badly, and as I have not pieces enough to make tops to cover them, I thought perhaps you could help

me out, by putting a notice in our Business Farmer. I am a reader of it. I have not been able to get what quilts I need since I burned out, so wish the readers of the paper could send me anything that will make a patch for a top. I can use old worn out wool dress skirts or waists by cutting out the best of it. I wish to send my many thanks in advance for what anyone may send me.—Mrs. Pearl Cook, Roscommon, Mich. R. 2.

—if you are well bred!

Children and Table-Talk.—"Out of the abundance of the heart the mouth speaketh" is a saying which has no application to the child at the table. Self expression on the part of the child is one of the cardinal education principles in the child-training of our day but, as a rule, the table is not the place for it. The child cannot expect to share with table-talk of its elders as an equal. Hence it should, as a rule, speak only when spoken to. A careful mother, of course, who keeps an eye on her little ones during the meal, can easily see if the child is very eager to contribute some little conversational item. A kindly, questioning glance will suffice to grant the permission desired and—away from the table, for the children should not be corrected at the table, either before members of the family or guests—the child may easily be taught that what it has to say must be brief and to the point.

The Runner's Bible

(Copyright by Houghton-Mifflin Co.)

Thou shalt have no other gods before me. Ex. 20:3.

For all the gods of the peoples are things of nought. Ps. 96: 1, c. R. V.

We never fear a person, or thing until after we have ascribed power to it, which is to make of it "a god". Where you find yourself in fear turn with deep gratitude to the truth that all power comes from the one true God. (Rom. 13:1). Firmly deny that this thing which frightens you has any power whatsoever,

and you will be free from fear and from danger—freed by Truth.

RECIPES

Celery and Cheese Bake.—Six stalks celery, one-fourth cup grated cheese, butter or substitute, salt and white pepper, one-half cup white sauce, buttered bread crumbs.

Clean the celery, cut into inch lengths, and cook in enough slightly salted water to cover. When tender remove and drain, add the white sauce and the grated cheese and season with salt and pepper to taste. Place buttered crumbs in bottom of bakedish, add some of the celery mixture, more crumbs, the remainder of celery, and top with the crumbs. Bake about fifteen minutes in oven and serve at once.

Apple-Whip Cake.—One-fourth cup butter or substitute, two eggs, two cups sifted pastry flour, one large tart apple, one orange, two cups sugar, one-half cup sweet milk, three teaspoons baking-powder, Red raspberry or currant jelly, one teaspoon vanilla.

Cream together the butter and one cup of the sugar, add the egg-yolks, and beat up until light, add the milk, and the flour to which the baking powder has been added; add the juice and grated rind of orange. Beat up and bake in two layers.

Just before ready to serve spread with the jelly, and heap up on top the apple- whip. To make this grate the large, tart apple. Whip until stiff the whites of the eggs, fold gradually the sugar and the apple. Beat up until very white and light, flavor with the vanilla or a little orange extract.

WOMEN'S EXCHANGE

If you have something to exchange, we will print it FREE under this heading providing: First—it appeals to women and is a bonifide exchange, no cash involved. Second—it will go in three lines. Third—You are a paid-up subscriber to The Business Farmer and attach your address label from a recent issue to prove it. Exchange offers will be numbered and inserted in the order received as we have room.—MRS. ANNIE TAYLOR, Editor.

109.—Housekeeper wanted for family of two. Send extra postage to Annie Taylor, Michigan Business Farmer.

AIDS TO GOOD DRESSING

SEND IN YOUR SIZE

Lately some of you ladies have been sending for patterns without giving size. This means expense and delay for both of us. I hope you all realize the importance of sending in your size when asking for patterns.



4585. A Good House or Morning Dress.—This model is comfortable and practical. It is suitable for a nurse's uniform, or for a house dress. Linen, repp, drill, percale, gingham and flannel may be used to develop the dress. The Pattern is cut in 7 Sizes: 36, 38, 40, 42, 44, 46 and 48 inches bust measure. A 38 inch size requires 4 1/2 yards of 36 inch material. The width at the foot is 2 yards.

4583. A Popular Style with New Features.—This is a very pretty model. It is suitable for silk, alpaca, flannel and jersey cloth, as well as for wash materials. The shoulder and sleeve portions are combined. This Pattern is cut in 6 Sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. A 38 inch size requires 2 1/2 yards of 40 inch material.

4589. A Splendid Style for Mature Figures.—Velvet or satin, would be very attractive for this model. It is finished in slip on style. The plait portions afford becoming fullness at the sides. The facing and collar are new features. This Pattern is cut in 7 Sizes: 36, 38, 40, 42, 44, 46 and 48 inches bust measure. A 38 inch size requires 5 1/2 yards of 40 inch material. For collar and facings of contrasting material 3/4 yard is required. The width at the foot is 3 1/2 yards.

4588. A Pretty Frock for "Party" or "Best Wear."—Figured silk with facings of crepe in a contrasting color, made this attractive model. One could use taffeta or printed voile. The sleeve may be finished with or without puff. This Pattern is cut in 4 Sizes: 8, 10, 12, and 14 years. A 12 year size requires 4 yards of one material 40 inches wide. To trim as illustrated requires 1/2 yard of contrasting material.

4599. A Pleasing Model for School or "Afternoon" Wear.—This dress is in slip on style. It has lines that are becoming and girlish. A combination of cloth and velvet, or plaid suiting and serge would be very desirable for this style. The Pattern is cut in 4 Sizes: 8, 10, 12, and 14 years. A 12 year size requires 3 yards of 40 inch material of one kind. To make as illustrated requires 1 1/4 yard of plain material and 1 1/4 yard of checked material.

4597. A Smart Frock for the Growing Girl.—New features and becoming lines are expressed in this pretty one-piece model. The right front is slightly draped at the side closing. The sleeve may be in wrist or elbow length. Figured crepe, or twill or serge could be used for this design. The Pattern is cut in 3 Sizes: 12, 14 and 16 years. A 14 year size requires 2 1/2 yards of 54 inch material. To make collar, band cuffs and a narrow belt of contrasting material will require 1/2 yard of 40 inch material.

4581. A Jaunty Coat for a Tiny Tot.—Brown velours was used for this model. The collar and cuffs are of chiffon velvet trimmed with soutache braid. This style is good also for velvet, velours, kasha and twill. The Pattern is cut in 3 Sizes: 2, 4, and 6 years. A 4 year size requires 2 1/2 yards of 40 inch material. To make collar and cuffs of contrasting material will require 1/2 yard.

4584. A Pretty Apron.—Comfort and daintiness expressed in this model. One could use unbleached muslin and trim it with bias banding of cretonne or gingham, or, one could use satin or percale with a contrasting color for binding. The 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 4 1/2 yards of 27 inch material.

4604. A Popular and Seasonable Style.—Bolivia cloth, duvetyne or broad cloth could be used for this model. The fronts lap in double breasted style. The collar is convertible, and may be turned up high, or rolled low with the fronts of the coat open. This Pattern is cut in 4 Sizes: 4, 6, 8 and 10 years. A 6 year size requires 2 1/2 yards of 40 inch material. To trim with fur cloth or pile fabrics requires 1/4 yard 54 inches wide.

4607. A Simple, Stylish Frock.—French serge, kasha or jersey weaves are good for this model. It has graceful lines, and becoming plait fullness at the left side of the front. The sleeve features the new fitted model. This Pattern is cut in 7 Sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. The width at the foot with plaits extended is 2 yards. For a medium size 2 1/2 yards of 54 inch material will be required.

4602. A Good Style for a School Dress.—This model is finished in "wrap style" and has the new flare effect in the skirt portions. As illustrated plain and contrasting material may be effectively combined or, one could use wool crepe with wool or yarn embroidery for decoration. It is also a good style for velvet. The Pattern is cut in 4 Sizes: 8, 10 and 12 years. A 10 year size requires 3 1/2 yards of 27 inch material of one kind. If made as illustrated it will require 1 yard of figured material and 1 1/4 yard of plain material 36 inches wide.

4595. A Stylish Skirt Model.—Here is a splendid version of the popular "side drape." One may use any of the soft materials now in vogue for this model. The width of the skirt at the foot is about 1 1/2 yards. The Pattern is cut in 7 Sizes: 25, 27, 29, 31, 33, 35 and 37 inches waist measure. A 29 inch size requires 3 1/2 yards of 40 inch material.

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HERE is the last word in treating cold troubles—rub Vicks well in over throat and chest. Get into bed and leave the coverings loose about the neck. All night long you breathe in the healing vapors of camphor, menthol, eucalyptus, turpentine, etc. The application also acts like a heating liniment or plaster—almost sure to loosen the cold before morning.

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

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

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Mr. Jackson is responsible. Above statement true.

RADIO DEPARTMENT

FARM BUREAU RADIO PROGRAM

Station KYW, Chicago — Central Time 8:01. Wave Length 536 meters.

January 4—"What of 1924?" by O. E. Bradfute, President American Farm Bureau Federation.

"County Farm Bureau Tax Work," by John C. Watson, General Statistician, Illinois Agricultural Association.

January 8—"A Day on South Water Street," by W. H. Hall, Department of Agriculture, Bureau of Markets.

"Financing the Farmer," by Burton M. Smith, Chairman, Agricultural Commission of the American Bankers Association.

Station W. R. C., the voice of the capital, Washington, D. C., 8:00 P. M., Eastern Standard Time. Wave length 469 meters.

January 7—"The Northern Migration of Negroes," by E. V. Wilcox.

PLAN CO-OPERATIVE FARM MARKETING

(Continued on Page 2)

will be chairman ex-officio of the committee.

The program and policy sought to be established for the Grange, Mr. Taber said probably will include both legislative and administrative activities. "Some legislation may be necessary," he said, "but what the farmer needs is more team work, not more legislation."

Mr. Taber said indications are that plans may be worked out along lines of the federal farm loan system and that the out-standing purpose of any program will be to "improve the economic condition of the farmer."

TWO COUNTIES JOIN FOR CO-OP CHERRY CANNERY

THE cherry growers of Oceana and Mason counties plan a co-operative cannery and already \$20,000 of the necessary \$60,000 has been subscribed. The movement was launched at a meeting of growers of the two counties held at Hart last week and resulted in the naming of a committee to proceed with the organization. The subscriptions already obtained were volunteered.

The proposed plant probably will co-operate with the Grand Traverse Packing Co., another co-operative concern, which has been successful during the three years of its operation.

The movement for a co-operative plant is the result of the strike of

cherry growers here this year when they refused to sell to local canneries because of the price offered.

In the Grand Traverse plant 250 barrels of 50 gallons capacity are frozen daily during the canning season. In the storage plant, 5,000 barrels can be stored at zero temperature.

The Grand Improvement Association has donated a site for the plant.

OVER 5,000 FARMERS EXPECTED DURING FARMERS' WEEK

FARMERS' Week at the Michigan Agricultural College, which has grown to be the biggest conference of farmers of the state held during the year, will be staged February 4-8 this winter, according to the announcement of A. M. Berridge, chairman of the Farmers' Week committee at the college.

More than a dozen of the leading agricultural organizations of the state will hold their annual meetings at M. A. C. during this week. A program including some of the leading men and women in the agricultural and business life of the nation is being prepared. Special agricultural exhibits on various phases of farming and rural life will feature the week.

Last year more than 5,000 farmers and their families attended the gatherings, and the committee is making plans to care for an even greater number this year.—R. C. Groesbeck, M. A. C. Correspondent.

CALIFORNIA MAN ADVOCATES CO-OPERATIVE MARKETING

(Continued from Page 3)

strong and truly cooperative bean marketing association. We believe such an organization would be of material benefit, not only to the Michigan bean farmers, but to many of the Michigan bean elevators, to the bean growers and dealers in other states; to the bean jobbers and the whole grocery trade handling various varieties of beans, and to the consumers who eat these beans.—R. L. Churchill, Secretary and Manager, California Lima Bean Growers Association, Oxnard, Calif.

Base Ingrate

Zeke: "Wall, how ye feelin', Jed?"
Jed: "Oh! purty good."
Zeke: "What? Purty good, after me walkin' four mile to see ye?"—Brown Bull.

Simplification

The following is an example of the simplicities of "pidgin" English, as set forth in a bill rendered by a Jap taxi driver in Hilo, Hawaii:

"10 comes and 10 goes at 50c a went, \$5.—Washington Star.

It was a mathematician's son who, in class, when asked what a fortification was, answered: "Two tentifications."

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"Reo" Closter Metal Shingles, V-Crimp, Corrugated, Standing Seam, Painted or Galvanized Roofing, Siding, Wallboard, Paints, etc., direct to you at Rock-Bottom Factory Prices. Save money—get better quality and lasting satisfaction.

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Cured His Rupture

I was badly ruptured while lifting a trunk several years ago. Doctors said my only hope of cure was an operation. Trusses did me no good. Finally I got hold of something that quickly and completely cured me. Years have passed and the rupture has never returned, although I am doing hard work as a carpenter. There was no operation, no lost time, no trouble. I have nothing to sell, but will give full information about how you may find a complete cure without operation. If you write to me, Eugene M. Pullen, Carpenter, 59-K Marcellus Avenue, Manassas, N. J. Better cut out this notice and show it to any others who are ruptured—you may save a life or at least stop the misery of rupture and the worry and danger of an operation.

CLOVER \$4.90 Per Bu.
AND TIMOTHY

BIG BARGAIN—Sample Free—SAVE MONEY. Red Clover and Timothy mixed—Standard Grasses, unsurpassed for hay or pasture. Contains nice amount clover—ready to sow. Thoroughly reseeded, guaranteed and sold subject to your test and approval. A real Bargain. Have Pure Clover, Alfalfa, Clover, Timothy and all Field Seeds at amazingly low prices. Write for free samples and 62 page catalog.

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HOMESpun TOBACCO, FIVE POUNDS Chewing, \$1.75, ten, \$3.00, twenty, \$5.25; Smoking five pounds, \$1.25, ten, \$2.00, twenty, \$3.50. Pipe and Recipe free. Send no money. Pay when received. **KENTUCKY TOBACCO CO.,** Paducah, Ky.

FUR DEPARTMENT

HOME TANNING OF SKINS

WHEN it is desired to preserve the skins of wild animals which have been shot or trapped, these may be tanned either with the hair on or off, as desired. Hair can be removed from hides by soaking them in tepid water made alkaline by lye or lime. The following recipe for a tanning liquor is furnished by the Biological Survey of the United States Department of Agriculture: To each gallon of water add one quart of salt and one-half ounce of sulphuric acid. This mixture should not be kept in a metal container. Thin skins are tanned by this liquor in one day; heavy skins must remain in it longer. They may remain in it indefinitely without harm.

When removed from this liquor, the skins are washed several times in soapy water, wrung as dry as possible, and rubbed on the flesh side with a cake of hard soap. They are then folded in the middle, hung lengthwise over a line, hair side out, and left to dry. When both surfaces are barely dry, and the interior is still moist, they are laid over a smooth, rounded board and scraped on the flesh side with the edge of a worn flat file, or a similar blunted tool. In this way an inner layer is removed and the skins become nearly white in color. They are then stretched, rubbed, and twisted until quite dry. If parts of a skin are still hard and stiff, the soaping, drying, and stretching process is repeated until the entire skin is soft. Fresh butter, or other animal fat, worked into skins while they are warm, and then worked out again in dry hardwood sawdust, or extracted by a hasty bath in gasoline, increases their softness.

RACCOON RAISING

I wish to know in what way it is possible to raise raccoon and what I should feed them?—A Reader, Suttons Bay, Mich.

—They should be kept in an enclosure say 10 by 20 feet for each raccoon. Thus if you had a dozen animals the enclosure should be about 50 by 50 feet. There is a wire manufactured for fur farming purposes and for coon about 14 gauge is right size with a 2 inch mesh. Such wire can be had of B. F. Tarman, Quincy, Pa., I think. Coon are very fond of sweet milk and bread; they also eat table scraps, meat, etc. The raising of raccoon will soon become much more of a business than now altho there are numerous ones now raising.—A. R. Harding.

WIDEN ROAD BETWEEN DETROIT AND PONTIAC

THE "most dangerous" improved road in the country will soon be the safest. Work was started early this winter which, when completed, will form a 200 foot right of way between Detroit and Pontiac, Mich. This stretch of highway is reputed to be the most traveled strip of road in the world.

The history of this highway graphically illustrates the growth of automobile travel and the rapidity with which road conditions change. Only six years ago the last strip of concrete connecting these two cities was laid. At that time it was looked upon as an achievement, and it was predicted that here was a good road for a generation at least. Today it is less adequate for the demands put upon it than was the dirt road it succeeded.

About 10 years ago a short strip of concrete was laid on the road in what is now Detroit. The next improvement started in 1915 when another section of the Pontiac end was concreted. Additional strips were laid in the two following years, the final piece of concrete being completed late in 1917.

The completed road averaged 16 feet in width. There was one section 18 feet wide and another 15 feet. The new road was not more than a year old when it became apparent that it was too narrow to care for the ever increasing traffic. During the past two years the urgent requests of motorists to have the road widened were emphasized by a large number of fatal accidents, many of them due to automobiles being crowded off the road and onto tracks of an

greater portion of the right of way. This year the state legislature passed necessary laws to permit the improvement.

When the new highway is finished it will consist of two shoulders of gravel road, each 38 feet wide, at the extreme right and left. These will be for the use of slow-moving vehicles and for parking purposes. Next will come two concrete roadways, each 40 feet in width, automobiles. These will be separated in the center by a 44-foot space for the interurban tracks from the automobile highway.

SPECIAL WINTER COURSES AT M. A. C. OPEN JANUARY 7

A NUMBER of special winter courses in various phases of agriculture, including dairy, poultry, horticulture, and farm mechanics, as well as "general agriculture," will open at the Michigan Agricultural College on January 7, according to the announcement of A. M. Berridge, director of winter courses.

The work in all the courses is designed to be of the greatest value to the practical farmer who has not the time for the regular four year courses. It is limited to practical material of value to the man actually engaged in agricultural pursuits.

Every citizen of the state over sixteen years of age is eligible for admission, there being no educational requirements placed on the courses, although a good grade school education is advised for those who would gain the greatest advantage from the special classes.

The list of courses which open January 7 include: general agriculture, eight weeks for each of two years; dairy production, twelve weeks; dairy manufactures, eight weeks; horticulture, eight weeks; poultry, four weeks; farm engineering, eight weeks.

The first of three special four week courses in trucks and tractors opened December 31.—R. C. Groesbeck, M. A. C. Correspondent.

NEW LEADERSHIP FOR THE NEW YEAR

(Continued from Page 13)

boat had gone, and then it went to sleep again. Many churches are metamorphosed into mausoleums and have written over their doors, "Death sleeps here." Why? Not thru lack of men, money, or machinery; but thru a need of a warm and vital connection with the great Antecedent Life, Christ. Sadis, "Thou has a name that thou livest but—" "He that hath ears to hear, let him hear what the Spirit saith to the churches" in his year that is just now new.

BIBLE THOUGHTS

TASTE AND SEE:—O taste and see that the Lord is good.—Psalms 34:8.

SECRET OF PROSPERITY:—As long as he sought the Lord, God made him to prosper.—2 Chronicles 26:5.

CURSING or BLESSING?—Cursed be the man that trusteth in man, and maketh flesh his arm, and whose heart departeth from the Lord.

Blesseth is the man that trusteth in the Lord, and whose hope the Lord is.—Jeremiah 17:5, 7.

OBEEDIENCE:—If ye love me, keep my commandments.—John 14:15.

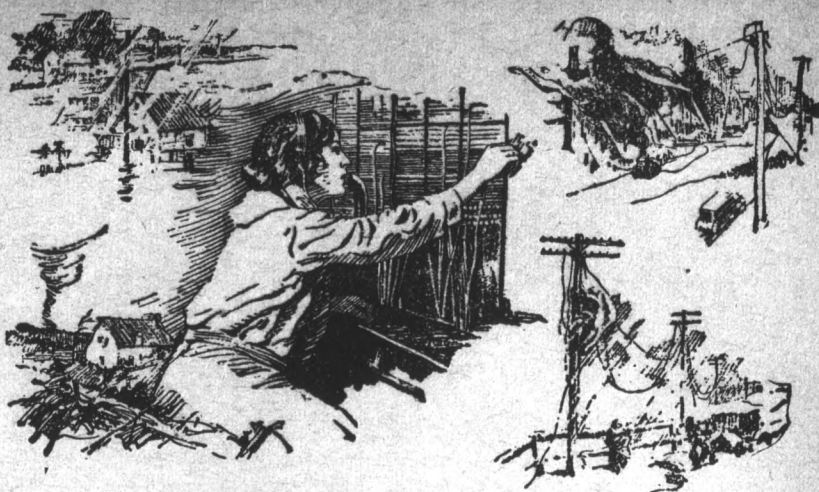
FULLNESS OF JOY:—Thou wilt shew me the path of life: in thy presence is fullness of joy; at thy right hand there are pleasures for evermore.—Psalm 1:11.

GOD'S DAILY BENEFITS:—Blessed be the Lord, who daily loadeth us with benefits, even the God of our salvation.—Psalm 68:19.

BETTER THAN SILVER AND GOLD:—Godliness with contentment is great gain. For we brought nothing into this world, and it is certain we can carry nothing out. And having food and raiment, let us here-with be content.—1 Timothy 6:6, 7, 8.

SOW BOUNTIFULLY:—He which soweth sparingly shall reap also sparingly; and he which soweth bountifully shall reap also bountifully.—2 Corinthians 9:6.

VICTORY SURE:—Greater is he that is in you, than he that is in the world.—1 John 4:4.



Priceless Service

Despite fire or storm or flood, a telephone operator sticks to her switchboard. A lineman risks life and limb that his wires may continue to vibrate with messages of business or social life. Other telephone employees forego comfort and even sacrifice health that the job may not be slighted.

True, the opportunity for these extremes of service has come to comparatively few; but they indicate the devotion to duty that prevails among the quarter-million telephone workers.

The mass of people called the public has come to take this type of service for granted and to use the telephone in its daily business and in emergencies, seldom realizing what it receives in human devotion to duty and what vast resources are drawn upon to restore service.

It is right that the public should receive this type of telephone service, that it should expect the employment of every practical improvement in the art, and should insist upon progress that keeps ahead of demand. Telephone users realize that dollars can never measure the value of many of their telephone calls. The public wants the service and, if it stops to think, cheerfully pays the moderate cost.



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seeds at 10¢ large pack. Or this handsomely decorated
Colonial Style 31 pc. Blue Bird Dinner Set given ac-
cording to your choice. Send today. Easily sold. Earn big money or presen-
ts. Send money. We trust you with seeds until sold.
American Seed Co., Box E 104, Lancaster, Pa.



COATS
AND
ROBES

Let us tan and manufacture your season's
catch into a coat, robe, neck piece, cap, mittens
of finest quality and latest design.
Custom Furriers Since 1878
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and make to your order from your
Cat, Horse and all kinds of Hides
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Coats and Fur Sets. Remodeling and
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work and save one-half. New Gal-
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FREE This Practical Book on CONTAGIOUS ABORTION

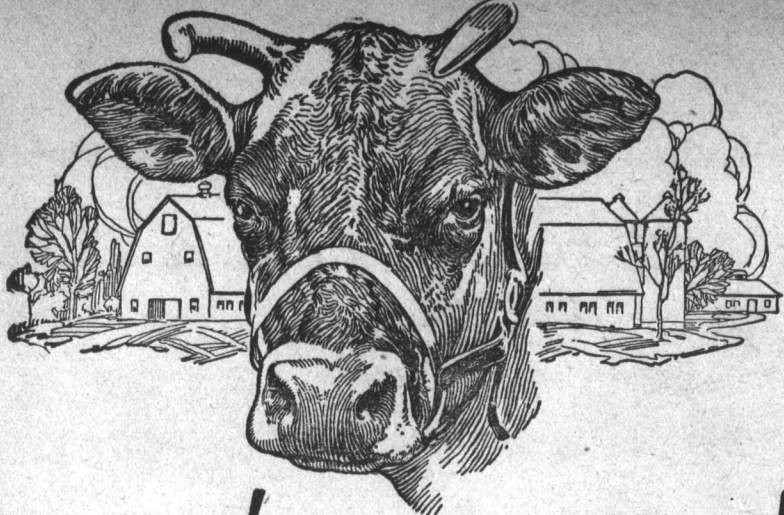
Tells you about cause, effects and treatment of
this dangerous disease; explains how, without
risk, you can, like thousands of other farmers
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ABORNO the pioneer, guaranteed remedy for
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LAKE LAND FUR EXCHANGE

Salem, Michigan.
Write for four grade list. No complaint from
shipper in over 2 years. Good treatment given
pays more than high prices.

If you have poultry for sale
put an ad in
The MICHIGAN
BUSINESS FARMER
You'll get Results!



Double the Net Dairy Profit!

— and stop dreading cow diseases, at one stroke —

One cent a day

per cow is the average cost of using Kow-Kare as a preventive of disease and aid to increased milk yield. Most dairymen feed a tablespoonful twice a day on week out of each month. Fed two weeks before and two weeks after calving, Kow-Kare strengthens the cow over this critical period.



The best dairy authorities say that, on the average, an increase in milk yield of only 10% will double the net profit. This is a goal so moderate that it can be attained in almost every dairy.

Cows are pretty hardy creatures, but their genital and digestive organs—always hard worked in the function of milk making—are prone to break down. The milk yield at once suffers.

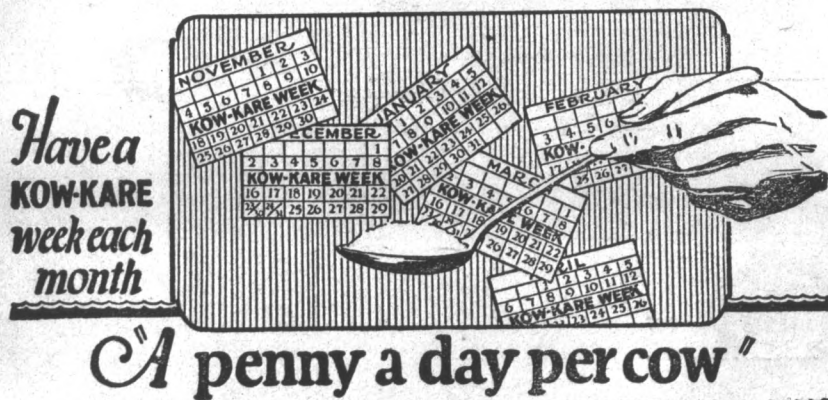
These milk-making functions of nearly every cow, need frequent aid to keep them toned up to top-notch production, and to ward off disease. Kow-Kare accomplishes just this purpose. Acts directly on the organs of production. Thus strengthened, you need have little fear of such cow diseases as Barrenness, Abortion, Retained Afterbirth, Scours, Bunches, Milk Fever, Lost Appetite.

The milk-flow, too, is surprisingly increased by the general conditioning action of Kow-Kare. A cow may have no sign of disease, yet show a substantial increase in yield when Kow-Kare is fed moderately.

Start now to get 10% more milk from your cows. Our free book, "The Home Cow Doctor" tells how to use Kow-Kare successfully. Write for your copy.

Feed dealers, general stores and druggists sell Kow-Kare; \$1.25 and 65c sizes. If your dealer is not supplied, we will mail postpaid upon receipt of remittance.

DAIRY ASSOCIATION CO., Inc., Lyndonville, Vt.
Makers also of Bag Balm, Grange Garget Remedy, Horse Comfort and American Horse Tonic.



BREEDERS DIRECTORY

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

CLAIM YOUR SALE DATE

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

Feb. 5—Poland Chinas, Detroit Creamery Farm, Mt. Clemens, Michigan.
Feb. 20—Durocs, Detroit Creamery Farm, Mt. Clemens, Michigan.

CATTLE

HOLSTEINS

HERD SIRE FOR SALE AT FARMERS PRICES. T. B. Tested guaranteed every way. Pontiac Romeo Pontiac DeKal No. 270204. H. F. H. B. sire Pontiac DeKal 2d Dam Pontiac Omega. H. B. BOWERMAN, Two Miles South of Romeo, Michigan.

FOR SALE: REGISTERED HOLSTEIN BULL of King Segis Pontiac and Pontiac Korndyke breeding. Ready for service. (Federal Accredited). Price \$100. GEORGE C. SPANGENBERG, Royal Oak, Michigan, R. 8, Box 108.

FOR SALE—Two Registered Holstein Heifers. One born Dec. 20, 1922 and the other May 28, 1923 from good producing stock and well developed. Price \$164.00 for both. Geo. Church, 1 mile south and 1 mile west of Imlay City, Mich.

FOR SALE—HOLSTEIN FRIESIAN REG. BULL. Calif., two-thirds white. Every Dam a R. O. cow. His 15 nearest Dams are 27 lb. A real show calf. Priced to sell.
H. W. MOHR, Elkton, Michigan.

AYRSHIRES

AYRSHIRES

To make room for winter we are offering bred cows and heifers also some well bred young bulls. Look up our winnings at leading state fairs.
W. T. SHUTTLEWORTH, Ypsilanti, Michigan.

FOR SALE—REGISTERED AYRSHIRE bulls and bull calves, heifers and heifer calves. Also some choice cows.
FINDLAY BROS., R. 8, Vassar, Mich.

DAIRY and LIVESTOCK

DETAILS COUNT IN DAIRYING

IN our eagerness to make every dollar possible we often overlook some of the smaller and seemingly lesser important things in the dairy, and by doing so are often unknowingly the losers. There are innumerable little things which cost practically nothing but which make a decided increase in the butterfat yield and consequently in the financial yield.

They are such simple things as regularity in time of milking, having the same person milk the same cows, quietness and gentleness while working around the cows, seeing to it that the cows are thoroughly milked clean and making it a practice to brush or clean the cows at intervals. These are some of the things that every cow keeper knows. Some may admit that they are all right for the man who has an extra large dairy or who gets a large price for his milk, but they think that they have no time to pay attention to all of those details.

Now the very fact that one is not getting the highest price for his produce or does not have a large dairy, should make him all the more anxious to get all the profit out of his cows possible under the existing conditions without the expenditure of too much extra capital. It is important to milk the cows regularly, or, in other words, as nearly at the same time as possible. And in order to obtain the best results they should not be milked hurriedly one time and then quite slowly at another. Neither should milking be stopped every few minutes. After the cow is started the milking should be steady until finished.

It is also essential that the same person milk the same cows, as a cow will never yield as much nor will she be as consistent if milked by different persons. Being noisy and rough around the cows is expensive. These things will probably not affect the yield as much as the test. I know this by actual observation in a herd that had been chased by a dog during the day. After testing the cows in the evening the average test was found to be just a trifle over 2.30 per cent, while ordinarily the average test of these cows was about 4.10 per cent. But the number of pounds of milk given was about the same. It is a well-known fact that cows when nervous or frightened will not yield the fat even though the quantity may not change materially.

There is a loss in two ways in not milking clean. Not only does the udder lose the milk, but the cow will soon have a swollen udder, which may result in the loss of a quarter or ruin the whole cow as far as milking is concerned. And besides, if a cow testing 4 per cent butterfat be milked and the first fourth of the milk be tested it will probably only test about 2 per cent and it even may be a little lower. The second fourth will test between 3 and 4 per cent and keep on increasing, and the very last milk or strippings sometimes tests as high as 12 and even 15 per cent. Hence the importance of getting the strippings.

On the majority of farms now the cows are kept in a fairly sanitary condition, but unfortunately there are some who are careless about the sanitary condition of the animals. In some cow stables the brush and curry comb are unknown articles. This is certainly not because the expense is too great. Keeping the cows clean is important and stables can be built in which the cows will keep quite clean with practically no expense.

Where a gutter is kept in back of the cows the error is so often made in giving the cows too much room between the feeding trough and the litter gutter. The litter will not drop in the gutter and consequently the cows are dirty. Where stanchions are used from 4½ to 5 feet is ample room between the stanchion and the gutter, varying of course with the size of cows. An ordinary sized Jersey or Guernsey will easily stand on 4½ feet. If, however, the cows are tied to a high trough they must have a little more room than I have mentioned in order to lie comfortably.

Every dairyman should have a Babcock tester of his own, or at least himself and a neighbor or two own one between them. There are, however, some who haven't got a tester nor have their cows been tested by someone else. By the following simple method they may test their cows so as to get a comparative idea of their value.

Get as many small-necked bottles as there are cows in the herd and after milking each cow perfectly dry weigh her milk to get the number of pounds. Then stir or pour it from one vessel to another until it is thoroughly mixed, and from the milk of each cow fill one of the bottles full and set away in a cool place until the cream has risen. The amount showing in the neck of the bottles will show at once which cows give the richest milk. The bottles should all be of the same size and make. Bottles in which catsup has been packed for sale in stores will make good test bottles for this purpose. A label should be pasted on each bottle on which is written the name or color of the cow from which the milk came. You know how many pounds each cow gives and which one gives the richest milk. Keep the milk from the best cow and that from the poorest one and take it to a creamery and have it tested, being sure to mix the milk well from each cow before taking samples for testing.

If a dairyman closer than the creamery has a tester the samples can be taken to him. The Babcock tester will show exactly what each cow is doing and from observing the difference in the various test bottles a very close estimate can be made of what any cow in the herd is doing. The man who takes the trouble to make a careful test of his cows often meets with a surprise in finding that some of his cows are getting their board without having to pay anything for it. When this is found to be true no time should be lost in getting rid of them and putting better ones in their place.—H. C. Warren.

CLINTON CO-OPERATIVE CREAMERY GREAT SUCCESS

EIGHT years ago a group of one hundred sixty-five men in and about Westphalia, a small town in Clinton county, elected to form a small co-operative creamery by each purchasing a ten dollar share thereby raising \$1,650.00. With this money a small plant and equipment was secured.

Had anyone prophesied the returns which this small investment would mean to those men over a period of eight years, it is doubtful if the prophecy would have received very much consideration.

However, during the eight years just passed \$14,673.64 in patronage dividends has been declared besides purchasing a house and lot valued at \$2,000.00 and paying for cream on the same basis with other creameries and cream buying stations.

The fact that during the last year their total business of \$34,035.00 shows an increase of approximately \$7,000.00 demonstrates that there is a considerable element of satisfaction in its management which during the past year decreased expenses \$600.00.

Mr. Theodore Bengel, who has been secretary for a number of years prepares each year a detailed statement assembled on a sheet of paper, which this year was nearly fourteen feet long and two feet wide, showing each patrons name, each check sent out, a total at the bottom of this column and also his patronage dividend figured out. This gives neighbor an opportunity to see just how they stand and also an opportunity to review their years work with the creamery.

Mr. Bengel also states that it also gives a very graphic record of the stability of patrons; that is, it is easy to note the blank column and weeks in which no check were sent to certain patrons showing that some were shopping around, which of course, tended to decrease the patronage dividend and this in some cases amounted to as much as \$40.00 which makes a splendid Christmas present for the loyal members.

The success of the creamery is re-

fected in the agricultural prosperity of the community and one has but to drive through to know that some force is behind the well kept farms and farm buildings.—H. V. Kittle.

BREEDS OF DAIRY CATTLE

No. 5—AYRSHIRE

THE Ayrshire breed originated in the county of Ayr, in south-western Scotland. In that region, which borders on the Irish Sea, the surface is rolling and has much rough woodland. Pastures therefore, are somewhat sparse and it is necessary for animals to graze large areas in order to obtain sufficient feed.

It is only within the last hundred years that Ayrshires have had a type well enough established to be entitled to the designation of breed. No exact account of the different infusions of blood of other breeds into the native Scotch cattle to form the Ayrshire breed is at hand. It is probable, however, that the Channel Islands, Dutch, and English cattle were all represented.

Importations and Distribution

The first importation of Ayrshires to this country was made in 1822, since which time there have been frequent importations into both the United States and Canada. New England, New York and Pennsylvania probably contain the largest number of representatives of the breed. There is a small distribution in the other Atlantic States and the Pacific Northwest. In Canada Ayrshires have had great popularity and the breed seems well able to withstand the rigors of the Canadian climate. The merits of the breed have not been advertised widely; consequently it is not well known in many sections of the United States.

Characteristics

The colors of Ayrshires may vary from medium red to a very dark mahogany brown and white, with either color predominating. Of late years among breeders there has been a decided tendency toward white with red markings. A black muzzle and a white switch are desired, but are not necessary for registration. Perhaps the most picturesque feature of animals of the breed is their long horns, which turn outward, then forward and upward. Another point of which breeders of the Ayrshire are very proud is the uniform, square, level udder with long body attachment which is common among the cows.

Quick, brisk actions are characteristic of the animals, which seem always to have an abundant store of energy and to be exceptionally alert. Ayrshires have a highly nervous disposition, which is useful for both production and self-support. Probably none of the other dairy breeds can compare with the Ayrshires in ability to obtain a livelihood on scant pastures. Their ability as "rustlers" has made them very useful in sections where there is much rough land in pasture.

In weight the cows may vary from 900 to 1,300 pounds (average about 1,000 pounds); bulls weigh between 1,400 and 2,000 pounds (average about 1,600 pounds). The animals are noticeably compact in body, with a tendency to smoothness over all parts. Formerly they were criticized for their short teats, but that fault has been removed largely by careful breeding. As a breed Ayrshires are generally very hardy and show great constitutional vigor.

At birth the calves weigh from 55 to 80 pounds, are very vigorous, easy to raise, and make rapid gains. Heifers reach maturity of frame at an age between the Holstein and the Jersey.

Production

Milk from Ayrshire cows contains comparatively little color and has the fat in uniformly small globules which average smaller in size than in any other breed. For these reasons the milk sometimes fails to show a distinct cream line, by which the consumer often judges the quality of the milk. Ayrshire milk, because of the small fat globules, stands shipping well without churning, and in other respects it is well adapted to the market-milk trade. The percentage of the butterfat in the milk is medium, and consequently there is no difficulty in conforming to local or state butterfat standards.

Families

On account of the comparatively

recent origin of the breed few families have been developed. The more prominent in the United States are the Brownie, Auchinbrain, Finlayston, White Cloud, Jean Armour, and Robin Hood.

MICHIGAN JERSEY QUALITIES FOR SILVER MEDAL

VARIELLA'S Creampot 538801, by producing 8,214 lbs. of milk and 507.05 lbs. of fat in 365 days, at 2 years, 2 months, becomes a Silver Medal cow in the herd of Mr. H. F. Probert of Jackson, Michigan. This fine cow is out of Champion's Creampot 377815 and by Variella's Flying Fox 168-679 having two Register of Merit daughters to his credit.

BREAKING AND TRAINING COLTS

IF a horse is to reach the stage of full value and usefulness possible for an animal of his type and class, he must be carefully broken and well trained when young, results which frequently are not accomplished by many horsemen. The best methods and practices for making a good work horse out of a good colt prospect are described in Farmers' Bulletin 1368, Breaking and

Training Colts, a revision of a former bulletin, which has just been prepared by the United States Department of Agriculture.

Since horses do things largely through habit, it is essential, says the bulletin, to establish good habits and to prevent colts from doing things which might develop into bad habits. It is of primary importance here that the colt should never be permitted to have his own way. If he can not do the one thing asked of him, the trainer immediately should make him do something else which he can do. In this way the colt is soon impressed with the fact that man is his master. Once this impression is firmly fixed in the colt's mind he is well on his way toward becoming a good, safe work horse.

The bulletin takes up in separate chapters such subjects as the age to break, gentling the colt, breaking to lead, handling and trimming the colt's feet, breaking to drive, stopping, backing, driving double, driving single, sights and sounds, breaking to ride, correcting bad habits, throwing a horse, harness, and the importance of a good mouth.

Copies of the bulletin may be had free as long as the supply lasts by addressing the Department of Agriculture, Washington, D. C.

USING CULL BEANS IN BALANCE RATION

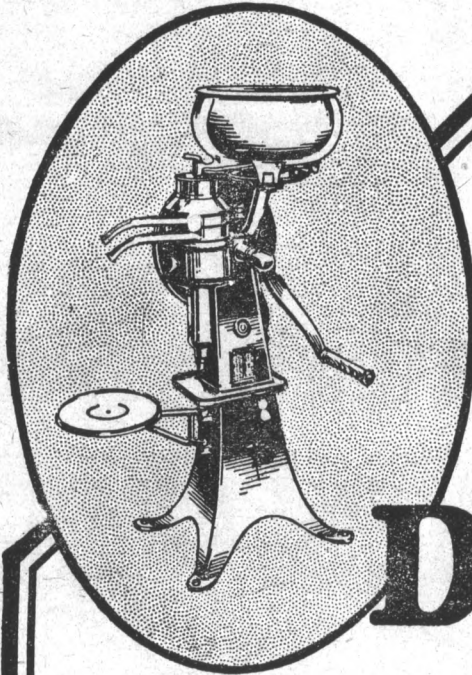
I have corn silage with a very little corn in it though. I figure to feed it twice a day with hay, corn stalks, or bean pods for roughage. Then for grain I buy cull beans and boil them, feed each cow about two quarts twice a day with a tin cupful of cotton seed meal. Is this anywhere near a balanced ration or not? If not, what would you advise me to add?—L. R. Whittemore, Mich.

—It is very difficult to say whether you are feeding a balanced ration or not from the measures that you use for feeding your cattle, that is, a tin cup might hold anywhere from a quart to two pounds of cottonseed meal.

Since you wish to feed cull beans, I would suggest this ration: 40 lbs. ground corn, 40 lbs. ground oats, 20 lbs. ground cull beans, 10 lbs. oil meal, 10 lbs. cottonseed meal.

If you feed alfalfa hay at the rate of 12 to 15 pounds per day instead of corn stalks, the ration would be satisfactory if the cottonseed meal were left out. However, you undoubtedly wish to utilize the feeds at hand and I would suggest for roughage that you feed 30 to 40 pounds of silage and 12 to 15 pounds of hay, which I assume contains a

(Continued on page 26)



**-Closer Skimming
-Easier Running
-Longer Life**

With the **NEW** **DE LAVAL** Cream Separator

A Better De Laval For Fewer Pounds of Butter

In 1913 it took 231 lbs. of butter (average price for the year) to pay for a popular size De Laval Cream Separator. In 1923 (average price for the first ten months) a De Laval of the same size can be purchased for 206 lbs. of butter, 25 lbs. or 11% less than in 1913. In addition, the De Laval of today is a very much better machine, having 10% more capacity, a Bell Speed-Indicator, self-centering bowl, a bowl holding device, and other improvements and refinements.

You Lose Money by Not Having a New De Laval

With high-priced butter-fat, you lose money by using an inferior or worn-out cream separator. There are hundreds of thousands of cream separators in use today waiting the price of a new De Laval in from six months to a year's time. There is enough butter-fat being wasted in this manner to keep several factories the size of the De Laval Plant, the largest in the world, running full force.

**\$6.60 to \$14.30 Down
\$3.96 to \$8.58 per Month**

If you want to buy a cream separator on the installment plan you can now get a De Laval on extremely easy terms. Practically all De Laval Agents sell them that way. For \$6.60 to \$14.30 (depending on the size) you can start using a high-quality, long-life, cream-saving De Laval; and then for \$3.96 to \$8.58 per month you can easily pay for it out of cream checks or butter money. (Prices slightly higher on Pacific Coast and in Canada.)

The De Laval Milker

If you are milking ten or more cows by hand you need a De Laval Milker. Like the De Laval Separator it will soon pay for itself, and is a quality product. There are already more than 15,000 in use giving remarkable satisfaction. A De Laval Milker not only saves a great deal of time and drudgery, but because of its pleasing and uniform action usually causes cows milked with it to give more than by any other method of milking. It also produces cleaner milk. Send coupon for complete information.

The new De Laval Separator, which has now been on the market for over a year and of which there are already more than 100,000 in use, is acclaimed on all sides as being the best De Laval ever made. That is saying a great deal when it is considered that De Laval Separators

- have millions of users who regard them as the finest machines made;
- have won more than 1100 prizes for superiority of operation and construction;
- are overwhelmingly endorsed for efficiency of service by cow testers, who reach over 6000 farms;
- are used and approved by creamerymen, college and dairy authorities;
- and have the longest record of use, as proved by the life of the thousands of machines in the "Oldest De Laval Users Contest," which averaged over 20 years.

With such remarkable achievements a new De Laval must be very good indeed to be better—and it is. Convince yourself. Ask your De Laval Dealer to show you the new De Laval. Try it alongside of any separator made and you will be convinced of its superiority.

The new De Laval has all the good features of the old, plus:

1. **Self-Centering Bowl.** The De Laval Bowl is so designed as to center itself when it attains separating speed, eliminating vibration, which adds to its efficiency and life.
2. **Light Running.** The De Laval Bowl is so designed as to shape, height, diameter and distribution of weight as to afford the least possible resistance in being revolved, which together with the automatic oiling system, and superior design and construction of the driving mechanism, requires the least power (per pound of capacity) to drive.
3. **All-Around Superiority.** A combination of the foregoing features, together with superiority of De Laval design, workmanship and materials, enables a De Laval to separate more thoroughly under all conditions of use, delivering a smoother and richer cream.
4. **Greater Convenience** is also obtained in the new De Laval through the use of a bowl holder which is attached to the machine.



SELF-CENTERING BOWL

Ask your De Laval Agent about it

DE LAVAL CREAM SEPARATORS



FARM & DAIRY SIZES

Send for this Free Catalog

**Tells All About
the New
De Laval**

The last word on Cream Separators.

THE DE LAVAL SEPARATOR COMPANY, Dept. 53,
165 Broadway, New York 22, N.Y.
Send Separator ☐ Milker ☐ catalog (check which)
Name _____
Town _____
State _____
No. _____
R.F.D. _____



Make Your MILKERS PAY

Every cow in your herd can be made to produce up to her full capacity

—if you look well to her ration, her health, her appetite and her digestion.

Balance the ration. Feed bran, oats and corn, or their equivalent, cottonseed or linseed meal, clover hay, alfalfa, silage—pasture in season.

Remember, the better the appetite the greater the food consumption, the greater the milk production.



I spent 30 years in perfecting this Tonic.
GILBERT HESS,
M.D., D.V.S.

DR. HESS STOCK TONIC

Keeps Cows Healthy Makes Cows Hungry

It conditions cows to turn their ration of grain, hay and fodder into pails of milk.

It contains *Nux Vomica*, greatest of all nerve tonics. *Quassia* produces appetite, aids digestion. *Salts of Iron* keeps the blood rich. There are *Laxatives* for the bowels, *Diuretics* for the kidneys, to help throw off the waste materials which so often clog the cow's system.

Excellent for cows at calving. Feed it before freshening. Good alike for all cattle.

Tell your dealer how many cows you have. He has a package to suit. **GUARANTEED.**

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?

DR. HESS & CLARK Ashland, O.

Dr. Hess Dip and Disinfectant

Keeps the Dairy and Stables Healthful and Clean Smelling

HEREFORDS

HEREFORDS

Registered Breeding Cattle, T. B. Tested at practical prices for production of Hereford Baby Bees profitably all ages.

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

Steers for Sale

70 Herefords 780 lbs. 70 Herefords 700 lbs.
50 Herefords 775 lbs. 50 Herefords 600 lbs.
All dehorned, deep reds and in good grass flesh.
Can also show you other bunches. If in the market for real quality one car load or more your choice. Write stating number and weight preferred.

VAN V. BALDWIN
ELDON, WAPELLO CO., IOWA

We Have Bred Herefords Since 1860

Spring calves for sale. Write us your wants. A few Chester White Boars and Sows for sale. **CRAPPO FARM, Swartz Creek, Michigan.**

4 HEREFORD BULLS, PRICED TO SELL. Dropped in March. 3 Polled, all good individuals. T. B. Tested. Wm. C. Dicken, Smyrna, Mich.

ANGUS

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

RED POLLED

FOR SALE—REGISTERED RED POLLED Cattle, Both Sex. **PIERCE BROS., R. 1, Eaton Rapids, Michigan.**

JERSEYS

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. **GUY C. WILBUR, SELDING, Mich.**

JERSEYS FOR SALE, FRESH COWS, Springers, Heifer Calves, one Bull. **LEROY KUNNEY, Adrian, Michigan.**

SHORTHORNS

FOR SALE: REGISTERED SHORTHORN Bull, 4 years old, of good size and dark red in color. Kind and gentle. Wonderful herd sire. Price right. If interested address **L. A. KING, R. 1, Harbor Springs, Michigan.**

REGISTERED MILKING SHORTHORN CATTLE. CLOVER GREST BARN, HANON, Mich. Also cut and feed cattle. Write for prices. Also cut and feed cattle. Write for prices.

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

GUERNSEYS

GUERNSEY BULL CALVES \$50. A. R. BREEDING. 50% to 75% breeding of Norman's Missaukee Red Rose. Bull soon ready for service \$100. **A. M. SMITH Lake City, Michigan.**

SWINE

O. I. C.

O. I. C'S: 75 LAST SPRING PIGS, PAIRS not skin. From 3 good strong sires. Also fall pigs. Recorded free. 1/2 mile west of depot. **OTTO SCHULZE & SONS, Nashville, Mich.**

HAMPSHIRE

WE GUARANTEE OUR REG. HAMPSHIRE satisfactory. Ask for literature and price. **LUCKHARD'S MODEL FARM, Bock, Michigan.**

REG. HAMPSHIRE HOGS FOR SALE Write your wants to **JOHN W. SNYDER, St. Johns, Michigan.**

POLAND CHINAS

100 SPOTTED POLAND CHINA PIGS, EITHER Sex for sale cheap. Also several bred sows for March and April farrow. Also 3 Registered Halstein bulls ready for service at your own price. **MERLE H. GREEN, Ashley, Michigan.**

DUROCS

AT THE STATE FAIR WE SHOWED ONE of the largest boars. He won 3rd in his working clothes (no fitting). He is back home and we want you to have a gilt or sow bred to this fine Colonial Boar. Write us. **SCHAFFER BROS., R. 4, Oxford, Michigan.**

SHEEP

FOR SHROPSHIRE RAMS WRITE OR CALL ON **DAN BOOHER, R. 4, Ewart, Michigan.**

HORSES

FOR SALE FULL BLOODED BELGIAN Stud Colt, coming two. **M. NISHLER, Route 4, Middlebury, Indiana.**

(Continued on page 29.)

considerable amount of timothy, and allow the cows to have such corn stalks and bean pods as they wish to pick over. The grain mixture should be fed at the rate of one pound of grain for each three and one-half pounds of milk produced.—**J. E. Burnett, Assoc. Prof. of Dairy Husbandry, M. A. C.**

Veterinary Department

MARE NEEDS GOOD FEED AND CARE

My brood sows will root one another in the side and then suck till they take the hair off. My young pigs are doing the same thing. I have put rings in their nose, but it isn't long until the rings are out. They don't root as long as the rings hold. I have them in clover pasture and feed corn and separator milk, fresh from the separator.

I have a young mare 6 years old that has been worked hard and half fed this last year or two. When I first got her about 6 weeks ago she was poor, had no life, and sure was hard looking. She is fattening up now though and looks lot better, but when I was plowing with her lately she would go along with her head down and if you spoke to her to go any faster, she seemed to pay no more attention than if she had not heard me. If you stop her when she is working, she drops her head and seems to go to sleep. If I hit her with the line she seems to have all kinds of life, but soon forgets.—**L. R. Whittemore, Mich.**

I do not know what is the matter with the brood sows. I would not like to make any suggestions without first having an opportunity to make a physical examination of the sows.

The six-year-old mare in all probability needs plenty of good feed and care more than anything else. Put her on a full feed of oats, corn and bran making the ration about one-half oats and the other half equal parts of corn and bran. A small handful of oil meal added to the ration night and morning would also be very good. Clover hay would be better than timothy. The addition of one teaspoonful of artificial carlsbad salts to the feed night and morning and continued for about one month would do very well. It may take all winter for your mare to get in good condition.—**John P. Hutton, Division of Veterinary Medicine, M. A. C.**

MILK THICK AND STRINGY

Would like to know what to do for my cow. Her milk is thick and stringy. She calved August 7th. Was not so bad when she came fresh as she is now. Her udder swells and she only gives half the milk. Last winter she tried to jump the fence and was hung on the fence. We think she might have gotten hurt.—**A. P., Onaway, Mich.**

—This cow is suffering from one of the forms of mastitis and I would suggest that you consult your local veterinarian relative to treatment and put the case in his charge. I would be glad to prescribe treatment but is very unsatisfactory to prescribe treatment for a case of this kind without first having an opportunity to make a physical examination of the patient. If you do not have a veterinarian in your community and will write me a letter giving as best as you can all the symptoms of the case I will be very glad to prescribe as best I can.—**John P. Hutton, Assoc. Prof. Surgery and Medicine, M. A. C.**

REMOVE BOTH HORNS WITH DEHORNING CLIPPERS

I have a cow that lost part of one horn last fall, just the inside is left. She did not seem to mind it at the time, but I don't think she looks as well as she did last year. Do you think losing the horn would have any effect on her health? She has had the same care this year as last year. It is one of my best cows, and I would like to keep her well. She just freshened in October. Would it be necessary to cover the horn with something? And what? I should also like to know why some cows like so well to lick a persons clothes, and if there is anything to do for it. The same cows do not drink water so well as the others. They sip it very slowly, stop drinking and start in again until they at last get to the bottom of the pail,

even when the water is not very cold. They seem to be in good health otherwise.—**C. J., Leelanau County, Mich.**

—I think it would be best for the cow to have both horns removed using the dehorning clippers. It is a habit that many healthy cows have to want to lick a persons clothes.—**Prof. John P. Hutton, Division of Veterinary Medicine, M. A. C.**

COW SWEATS

I have a three year old cow that sweats. Will be standing in the barn and be all wet with sweat. Seems to be well, eats hearty, and in fair condition, and is to freshen in March. She still seems to have her old hair, doesn't look as tho she had shed as she should. I have only owned her about six weeks.—**A. S., Fremont, Michigan.**

—I think that the sweating is due to the heavy coat of hair that the cow has. Groom the cow good twice daily, put her on a good balanced ration. The addition of a heaping tablespoonful of Glauber salts to her feed night and morning would be very beneficial.—**John P. Hutton, Asso. Prof. Surgery and Medicine, M. A. C.**

DOES YOUR SON WANT TO BECOME A VETERINARIAN?

(Continued from Page 8)

veterinary science is nothing more nor less than science applied to the solution of the problems of disease prevention and cure in the lower animals, and veterinary practice is only the legally sanctioned and protected method of effecting this application in every-day life. There may be some better way—we doubt it—of applying the science of the veterinarian but there is certainly no substitute for the science itself. It is not a problem that is vital alone to the veterinarian—he can find other work to do. A well educated veterinarian is a well educated man and as such he can look after himself. But without veterinary service our animal industry would be ruined. The effect on agriculture and consequently upon the general welfare is obvious. We beseech a thoughtful consideration of the veterinary problem on the part of your readers.

Appreciate Company

Two farmers met after church and had this conversation:
"I hear you've sold your pig?"
"Yes, sold him last Thursday."
"What'd ye get?"
"Eight dollars."
"What did it cost ye to raise it?"
"Paid three dollars for the shots, and five more for the feed."
"Didn't make much, did ye?"
"No, but I had the use of the pig all summer."—Exchange.

Why Not a Butcher Shop

Party on the phone—Have you any nice round steak?
Dispr Zachry—No, madam.
Party on phone—Have you any nice loin steak?
Dispr Zachry—No, madam.
Party on phone (much exasperated)—Well, for goodness sake, why haven't you?
Dispr Zachry—This is the dispatcher's office and our trains have not killed any cows lately.—**A. C. L. News.**

The Only Way

"The women of today are able to meet any situation," said a clerk in the general manager's office at Detroit.
"If I were to kiss you, how would you meet the situation?" asked her friend.
"Face to face," she replied.—Exchange.

NEW LAMP BURNS 94% AIR

Beats Electric or Gas

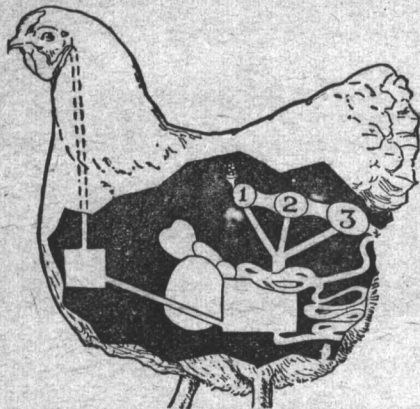
A new oil lamp that gives an amazingly brilliant, soft, white light, even better than gas or electricity, has been tested by the U. S. Government and 35 leading universities and found to be superior to 10 ordinary oil lamps. It burns without odor, smoke or noise—no pumping up, is simple, clean, safe. Burns 94% air and 6% common kerosene (coal oil). The inventor, **A. R. Johnson, 609 W. Lake St., Chicago, Ill.**, is offering to send a lamp on a 10 day's FREE trial, or even to give one FREE to the first user in each locality who will help him introduce it. Write him to-day for full particulars. Also ask him to explain how you can get the agency, and without experience or money make \$250 to \$500 per month. (Adv.)

Poultry Department

HOW TO MAKE A HEN MAKE EGGS

A HEN'S egg factory is departmentized. The egg she lays is made by piece work in three departments—just like Henry Ford makes an automobile, according to L. J. Brosemer of the Sears-Roebuck Agricultural Foundation, who shows that inside a hen is a plant that works with the system and regulation of an up-to-date automobile factory.

"There are three departments in the egg making plant," said the Foundation's expert. "The yolk is made in department No. 1. From



this department it moves through a passageway into the next department where the yolk is coated with white. When the coating job is completed in department No. 2, it is moved into department No. 3, where the egg is encased with a layer of the purest form of carbonate of lime, forming the egg shell. Then the egg is passed on to a hungry world—fresh, sanitary and sealed. These three departments of the egg making plant might be compared with an automobile factory. First, the engine is made, like the hen makes its yolk, then the chassis, as the chicken encases its yolk in white, finally, the auto body covering the whole, just as the hen puts a covering of lime over its product in the form of a shell.

Sometimes the egg plant fails to work. That is not due to laziness or labor unrest or strikes, but because the egg making material furnished the hen is not of the proper sort. The average American hen lays 72 eggs a year. She should manufacture twice that number. The reason she makes so few is because, as an honest manufacturer she refuses to manufacture anything but a whole and complete egg. Farmers and other poultry keepers are to blame, because they unknowingly do not provide the food material the hen requires to keep all three egg making departments working full time. When a hen is fed the right foods in the proper amounts so as to secure the greatest efficiency in her plant she has to make eggs or she'll burst.

"Hens must be given a balanced ration. If they are fed a mixture that produces 100 yolks for every 50 whites, then the egg making plant can only turn out 50 normal eggs. The same situation in an automobile factory would cut down the output, for what could be done with 100 engines if the auto maker had only enough material to manufacture 50 chassis? He is up against it the same as the hen's egg plant."

After working over gizzards and test tubes for years experts poultrymen are agreed that each particular kind of poultry feed contains a definite amount of yolk and white making material. A balanced ration that contains exactly the right proportions that will enable the egg making plant to turn out an equal number of yolks and whites and keep the hen's factory working full time is given below:

Kind of Food	Yolks	Whites	Shells
12 lbs. beef scrap.....	12	133	0
50 lbs. cracked corn.....	128	67	0
50 lbs. wheat.....	122	91	0
25 lbs. bran.....	39	51	0
25 lbs. shorts.....	51	53	0
20 lbs. corn meal.....	78	40	0
10 lbs. ground oats.....	20	15	0
Free access to oyster shells.....	0	0	450
	450	450	450

"The above ration fed to the average flock of fowls practically

will double the egg yield of the hen's factory," concluded Mr. Brosemer.

CHICKEN FRIENDS

ANY chicken that varies enough from its mates to be remembered as an individual may well be called a chicken friend.

The first chicken we remember was an exceptional layer. Her egg had pinkish spots entirely different from any other hen's egg. Also she was a pepper and salt type of plumage—a hen grown by one of the children from a chick, and distinctive in appearance so she was never mistaken for another hen. We put a leg band on her to give her a number. One day in September we saw she was beginning to molt; then we lost sight of her until one night while looking over the chickens preparatory to choosing some for exhibition, we found a snowy white hen with the legband of "Speckles." It didn't seem possible that she had molted pure white, but she had; it was Speckles all right as she proved by her eggs with the pinkish spots.

There was a Silver Laced Wyandotte pullet which showed from the time she was hatched a disposition to be friendly. She would follow us to the house and up on the porch if allowed. The coal chute was under the dining room window. One day Silver hopped up and looked thru the window. Not long after on a lovely October day, the screens were taken down, and Silver flew thru the window. No one noticed her coming in; when discovered she was making a nest of the corner of the couch, which she didn't leave until she had laid her first egg; then how she did cackle! The doings of the live stock the coming of the calves and pigs and chickens make up much of the excitement of the farm; the family were all curious as to where Silver would lay her next egg. When we saw her picking her way daintily towards the house, we opened the window. In she flew and laid another egg. In time the novelty wore off and we shut her up, but Silver was persistent so long as she was on range. She would fly up against the window until she was let lay in her first nest. As everyone knows, hens have favorite nests. Sometimes there is a regular line-up waiting to lay in one nest.

Beauty was another chicken friend. She was the prettiest White Wyandotte we ever saw. In her second year she took sweepstakes as the best bird in the show of 1,500. She was good tempered and prepotent as well as beautiful; her grand daughter took sweepstakes pullet in the American class at the state fair.

Beauty liked to pose; she would stay put in any position she was placed, but she would not go into a coop head first. Put her in backwards, and she was still; but let her see the coop before her body was in, and there was trouble.

We had two splendid cockerels one year, full brothers. We wished to use them alternately in the pen, and to separate them from the pullets gave them a yard to themselves. Sometimes they were peaceable; and again they would fight. Finally we took to tying them together at the first sign of trouble. With a wide strip of flannel we tied one leg of each about two feet apart. After an hour of being tied, they wouldn't look at one another. This is a good remedy for fighting males of all ages.

Strangers to chickens may say that they have no intelligence, that they are not temperamental, but anyone who has worked with chickens will tell a different story. Some chickens are sweet tempered, some are cross, some are jealous, some are cranky. One good breeder finds it well to humor his hens.

HATCHING DUCK EGGS

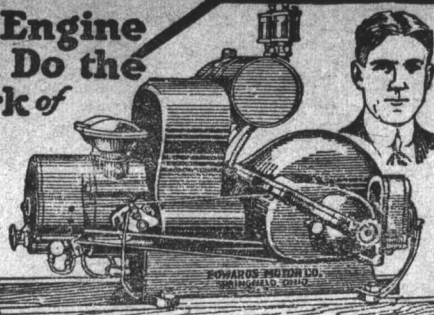
I wish to hatch my duck eggs in an incubator, and do not know how to go about it. Is it the same way as chicken eggs? Would you advise hatching duck eggs in an incubator?

—J. O., New Haven, Michigan.
The large commercial duck farms in the East hatch practically all of their eggs in the hot water type of incubator and secure very satisfactory results; in fact these hatches

(Continued on Page 28)

My Engine Will Do the Work of 6

6



"I set out to build a farm engine that would have every feature the farmer wanted and none he didn't want. It has now been on the market six years. Thousands of satisfied users tell me I've succeeded. I'm proud to have this engine bear my name."
—A. Y. EDWARDS

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There is no other farm engine like it. Simple in construction and easy to operate. It is only one engine, yet it takes the place of six engines. It will give from 1½ to 6 H. P., yet it is so light that two men can carry it easily. Set it anywhere and put it to work.

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Operates with kerosene or gasoline. Easy starting, no cranking. The greatest gas engine

value on the market. And you can prove all of these statements to your own satisfaction.

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Ivan L. Blake, of Hannibal, New York, says: "Only engine economical for all jobs. I run a 28-inch cord wood saw, a 24-inch rip saw, a washer, a pump, and a grinder, and it sure runs them fine. It has perfect running balance, and it sets quiet anywhere."

Clarence Rutledge, of Manitoulin Island, Ontario, says: "Have given my Edwards four years' steady work and like it fine. It uses very little fuel. I run a 28-inch cord wood saw, also a rip saw, 8-inch grinder, ensilage cutter, line shaft for shop, churn, washer, separator and pump. Have had ten other engines and the Edwards beats them all."

Frank Foell, of Cologne, New Jersey, says: "It's a great pleasure to own an Edwards engine. I run a wood saw, cement mixer,

threshing machine, etc. Do work for my neighbors. Easy to move around and easy to run. I would not have any other."

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Chicks sent by Insured Parcel Post prepaid to your door. 100% live delivery guaranteed. Sixteen years of experience in producing and shipping Chicks giving absolute satisfaction to thousands. Write for valuable illustrated free catalog and price list. Get lowest price on best quality Chicks before placing your order.
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Broiler Chix.....12c W. Wyandottes.....18c
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Sheppards Anconas.....16c Black Minorcas.....16c
Extra selected standard bred chicks \$4.00 per 100 more. Add 35c if less than 100 ordered.
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LEGHORNS

LEGHORNS

S. C. Buff Leghorn Hens, Pullets and Cockerels. Hens and pullets \$2.50 each; cockerels \$3.00 to \$5.00 each. Show birds a matter of correspondence. LAPHAM FARMS, Pinckney, Mich.

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WHITTAKER'S R. I. REDS. MICHIGAN'S greatest color and egg strain. Cockerel price list ready in September. Improve your flock with Whittaker's red cockerels.
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FOR SALE CHOICE S. C. R. I. RED COCKERELS. Have size, type color and breeding. G. W. VAN FOSSEN, 321 Hillsdale St., Hillsdale, Michigan.

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BUFF ORPINGTON COCKERELS FOR SALE. Cocks Strain.
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Silver Wyandottes. Prize Winning Strain, Detroit and Chicago. Some fine stock now \$4, \$5, and \$6 each. Alvan Stegenga, Portland, Mich.

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MRS. FRED KLOMP, St. Charles, Michigan.

Barred Rock Cockerels, Husky, Vigorous Birds bred from great layers. Sons of Detroit and Grand Rapids 1st prize males.
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PARK'S STRAIN BARRED ROCK COCKERELS from extra selected stock headed by M. A. C. cockerels. April hatched, \$4.00 each, 3 or more \$3.50 each. Shipped approval and prepaid on orders received before December 15.
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BARRED ROCK COCKERELS BRED FROM Holtermans Pedigreed Aristocrats direct. Both Light and Dark. Price \$4.00, two for \$7.00.
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(Continued on page 31)



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compare very favorably with those secured from the domestic hen. As a rule the hot water type of machine is preferred. Most varieties of ducks require about twenty eight days of incubation, but the Muscovy variety requires a period of about five weeks. It is a good practice to sprinkle the eggs with warm water by means of a whisk broom several times during the hatching period. About the 26th day it is also advisable to moisten a flannel cloth and lay it over the top of the eggs for a few hours. This of course is practiced primarily to provide additional moisture at the time of hatching. If you have a limited number of eggs to hatch it would probably be advisable to hen hatch them entirely.—E. C. Foreman, Professor of Poultry Husbandry, M. A. C.

NO CURE FOR WHITE DIARRHEA

I would like to know a cure for white diarrhea in poultry, especially baby chicks. Also a stimulant to feed hens for winter eggs. I would like a formula I could make.—E. O. D., Prescott, Mich.

—There is no cure for bacillary white diarrhea in adults or baby chicks. If the party concerned will correspond with the Veterinary Department of the Michigan Agricultural College, they can give them detailed information as to the handling of this disease.

As to stimulants to feed hens for winter eggs, I would say that this is a vicious habit and anyone who is at all interested in the continued well-being of their flock should abstain from such agents. Proper feeding and proper housing is the best means by which to obtain high production for any length of time.—H. J. Stafseth, Res. Assoc. in Bacteriology, M. A. C.

BABY BEEF PLAN INSURES GOOD CASH MARKET

(Continued from Page 4)

small farm or the large one, he is positive in his assertion that Michigan can produce Herefords more economically and more profitably than any other location in the world, while Michigan beef raising eliminates western mortality losses, compares favorably in land investment; the proximity to the population centers and the great markets eliminate loss from shrinkage in transportation and cut freight costs. Nor does Michigan fear terrible drouths when the profits of a season are wiped out, or losses from animal pests. Many are the advantages of Michigan over the so-called cattle country.

Mr. Sotham who has maintained a breeding herd, winning at the greater shows of the country, has witnessed the rise and fall of Herefords three different times. The present period is the low level. Confident of their ultimate rise to higher prices he has devised his Hereford baby beef plan to insure a brisk and profitable cash market for Herefords in Michigan. Briefly, a market for Hereford baby beef has been established in Detroit that insures top prices, according to the Chicago market for Hereford baby beef, according to quality and dressing per cent. This per cent is based

reasonably and Michigan producers have had little difficulty in making it. Some have even dressed more, demanding a premium, while others that do not make the base per cent receive a lesser sum for each one per cent less dress.

Purebred Hereford cattle are used because at present they can be purchased very reasonably, because they are more thrifty and make bigger gains, thus arriving at the desired weight more quickly, so much so that it more than offsets the difference in interest on investment. And then purebreds have two markets—breeding and beef; while the grade has one—beef. Not all the produce of these purebred Hereford breeding cattle are used for beef. The outstanding individuals are raised the same way but are kept for breeding purposes. They are disposed of privately or by auction sale. As the breeder is sure of his baby beef price he knows that a purchaser in the sale must pay more than he is worth for beef. As a result eight successful purebred Hereford sales have been held in Michigan during the last eighteen months, the breeders realizing a substantial profit over and above baby beef prices.

The production of these beeves requires the least possible amount of labor necessary to any method of stock feeding. Cows are preferably run loose with their calves in the winter, a creep being built in one end of the barn that enables the calf to get in but keeps the cow out. In this creep is built a self-feeder, allowing the calf to have what grain he wants when he desires it. Good silage with either clover or alfalfa hay will keep the cow in a good condition throughout the winter. Oat straw in addition is an economical change. In the summer a creep built in the field where the calf comes for water or salt lets the calf have what grain he wants while on grass. In other words, the calf is pushed from date of birth until ready for market. Full benefit of his growth is taken. He is castrated while from two to three months of age, lessening the grief caused when older. Thus at from ten to fourteen months of age a mature baby beef is produced and realizes extreme top prices.

Whole oats and whole cornmeal are used in feeder for calves that are just beginning to eat grain. This is kept up until incomplete digestion requires grinding, unless hogs run with cattle. Corn, oats, and bran are the standbys, with barley a good substitute for corn. Oil meal, pea size, is very beneficial on the finish. While providing profitable to the producer, the consumer in turn receives real value for his money.

To the interesting of Michigan farmers in the production of Hereford baby beef have Mr. Sotham and his son, W. H. Sotham, also of St. Clair, and Earl C. McCarty, Bad Axe, Michigan, spend all of their time, with the result that over a thousand purebred Herefords have been imported into Michigan and found new homes within her borders. A good indication of the success of the plan is the increased output of baby beeves from producers that have been in from the start.

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Please send without cost or obligation to me your Free Proof Treatment.

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DRUGGIST



Straight Edge, No. 1169786, herd sire owned by T. F. B. Sotham, of St. Clair, is the only living bull sired by Perfection Fairfax and out of a Disturber cow.

How Banks Act Under Federal Farm Loan

(Continued from Page 7)

They are not hypercritical as to title, but Abstracts must show at least a good title in the name of the borrower. There is nothing in these loans which hinders the borrower from selling his farm. As a matter of fact, a farm which has a mortgage of this type on it will sell for a better price than if the purchaser had to pay the entire sales price in cash or to obtain a loan for himself. The fact that the land is permanently financed is always an inducement to the purchaser. In case of a sale, of course, the bank must be notified that the sale has taken place and must give its sanction as to the loan being assumed by the new owner.

The cost of making a loan from one of these banks is small but varies somewhat on account of the different manner in which the Federal Land Banks and the Joint Stock Land Banks transact their business. These banks are limited to loans not to exceed \$100 an acre and only take into consideration the agricultural value of the security. They do, of course, take into consideration the location value insofar as it adds to the agricultural value in the way of marketing farm products, school facilities, etc. However, loans are not made on the basis of suburban valuation.

This System of financing has made available money at low rates of interest and on convenient time, and any system which has done this can help the farmer who wishes to finance himself, and this is what the Federal Farm Loan System was intended for and is doing. The men, who undertook to develop this System of financing the farmer properly and in a manner adapted to the needs of agriculture, began by accepting the first principles in order to eradicate the abuses and difficulties surrounding the business of supplying capital for agriculture.

The first step in properly financing agriculture was to arrange for securing capital investments in land on convenient terms—terms which would give the farmer an opportunity to make the farm help pay for itself over a period of years out of the money earned in actual operation. Land Banks give the man who heretofore has been renewing his mortgage every five years, dabbling along and paying the highest rate of interest, or at least a good stiff one, and paying a commission every time he renewed a loan, a chance to get on his feet by giving him thirty-three years in which to pay the loan and at a rate of interest not to exceed 6 per cent. While there is no such thing as an easy way of paying a debt, the fact remains that the type of loan made by these banks is a very easy loan for the farmer compared with the one he used to have to carry.

There are no more than enough funds in the average country community to take care of the seasonable demands for loans from farmers who wish to use the funds for operating capital. Naturally, the country banker is interested in an outlet or a connection which will furnish him adequate funds to properly finance land purchases or to refinance existing mortgages, and in doing this, with the farmer, is interested in several matters. One is the type of contract, another one is the rate of interest.

The farmer who is permanently financed on a loan such as these banks make is head and shoulders above the man who is temporarily financed, and who has signed a large obligation for a short term knowing that he cannot meet it at its maturity. This, in itself, is unsound business and when this man goes to a local bank to borrow money for a short time for buying cattle, equipment, fertilizer or any improvements on the farm the banker must take into consideration the fact that he has a large obligation maturing within a short time which he knows that he cannot meet at its maturity, and about which there may be uncertainty of cost of renewal. The banker, as a good credit man, must take this into consideration in extending credit. On the other hand, the man who is permanently financed on a contract such as these banks offer can go into the local bank to borrow funds for operating purposes

or for improvements and be taken care of, if his general reputation entitles him to credit.

The interest rate of these banks is about the same as charged by loan companies on desirable loans, but the borrower saves the commissions charged by the agents of these companies and also gets permanent financing. The real cost of a Land Bank Loan is much less than in other loans on good security.

The agencies have been provided by the United States Government to properly take care of the farmers needs for capital for the purchase of land for refinancing existing farm loans and for other long time farm investments and every farmer who needs and entitled to this service should for his own interests familiarize himself with this service.

JAPAN INDEPENDENT OF OTHER NATIONS FOR SUGAR SUPPLY

THE last country to build up a home sugar industry of sufficient size to render it independent of the world for its sugar supply is far away Japan, the dream of whose statesmen long has been to make the Empire as nearly self-supporting as possible.

For two centuries small quantities of crude sugar have been produced in primitive bull-power mills in Japan, but until recently the bulk of her sugar requirements was imported from other countries.

After acquiring the island of Formosa, the Japanese government set to work vigorously to develop sugar production wherever sugar could be produced in the Empire. It levied a protective duty on sugar; established a sugar bureau; sent students to Germany, Hawaii, Louisiana, Java and other countries to study and report on their sugar industry; imported beet seed and new varieties of cane; established experiment stations; set aside large tracts of land for new sugar companies; granted an annual subsidy of 6 per cent for 5 years on the capital invested; purchased and loaned sugar machinery to new companies; furnished manure gratuitously for 5 years and in various other ways stimulated the development of the industry. The early modern mills were entirely equipped with American, German or British machinery, all of which was copied and reproduced until now, only the rolls are imported.

As a result, a hundred of the primitive mills in old Japan have been modernized, 52 new cane mills have been built in old Japan and Formosa 4 beet sugar factories have been erected in old Japan, Manchuria and Korea and 13 refineries have been constructed in old Japan. Several of her mills grind a thousand or more tons of cane per day, while the largest has a capacity of 3,000 tons, one of the largest mills in the world.

The sugar industry of Japan now profitably employs \$250,000,000 of private capital and produces four to five hundred thousand tons of sugar annually, about as much sugar as the Japanese people consume. In the event of war Japan will not be made to submit to the rapacity of foreign sugar producers, as were the United States and Great Britain during and after the world war.—Truman G. Palmer, Sugar Statistician, Washington, D. C.

THE CORN'S IN THE SILO

THE corn is in the silo
And the wheat is in the bin
And the frogs way down the meadow
Are losing of their vim.

The air is keen and snappy
And the eaves are falling down
And where the wood once was green
Now 'tis a russet brown.

Now every one's preparin'
For the winter's coming on
The frost has glazed the pumpkin
But it cannot touch the corn.

FOR

The corn's packed in the silo
And the wheat is in the bin
It took a year in making
Thank God we've got it in.

Mr. T. O. Kraenel,
Park Avenue Hotel,
New York City.

Father's Blow to Mother
"Poor Broome! He's gone over to the
silent majority."
"Why—I—when did he—is he dead?"
"Well, no; but he's married."—Tit-Bits.

CHANGE OF NAME

EFFECTIVE January 1, 1924, the name of this Company was changed to The Michigan Bell Telephone Company.

The Michigan Bell Telephone Company is a Michigan corporation, organized in Michigan for the purpose of furnishing Michigan people with Universal Telephone Service.

Change in name was made in order to identify this Company in name with the Bell System, of which it is a part. Through the Company's association in the Bell System, telephone users in Michigan are assured the highest standard of service—Bell Service.



MICHIGAN BELL
TELEPHONE COMPANY

(Continued from Page 26)

PET STOCK

DOGS

German Shepherd, Airdales, Collies, Old English Shepherd dogs, Puppies, 10c illustrated instructive list. W. B. Watson, Box 27, Macon, Mo.

HUNDRED HUNTING HOUNDS CHEAP.
C. O. D. Trial.
KASKENNELS, BUFA, Herrick, Ills.

Have You
Live Stock
For Sale?

An Ad in The
Michigan
Business
Farmer
will sell it.

WHEN WRITING TO ADVERTISERS, PLEASE MENTION
THE BUSINESS FARMER

MARKET FLASHES

FOOTE'S MARKET LETTER

BY W. W. FOOTE

Increase in Business

THAT American farmers are regaining in part at least their old time purchasing power is an undeniable fact, and perhaps the most striking index of improvement in the agricultural situation is the renewed business reported by the mail-order houses. The year's combined sales of the two large Chicago mail order firms for the year just closed aggregated around \$350,000,000, an increase of about \$83,000,000 over 1922. Farmers because of over production have been forced to sell their wheat and hogs at such reduced prices as to make big inroads in their profits, but lambs have been highly profitable, as have well fattened cattle. Dairy interests have been extremely prosperous, and farmers have made good money on their eggs, poultry, milk, etc. Wages paid to farm hands are far higher than before the war, and so are railroad freight rates, and the entire scale of living has had the biggest kind of a boom, workmen's wages having soared to figures never deemed possible ten years ago. In the production of wheat the enormous farms of the Canadian western provinces stand a good show of coming out ahead over the little farms of the United States, with their enormously powerful sowing and harvesting implements, and this is bound to become even greater in the future. Legislation to solve the problem of our vanishing forests is expected to be enacted in the near future, and "keep the fires out and the taxes down" is one of the popular ways of expressing the sentiments of owners of forests. For nearly a year a committee appointed by the United States Senate has been traveling all over the country studying the forestry and lumber question. The foreign commerce of this country has been large in volume, and enormous exports of lard and cured hog meats have been brought about through much reduced prices.

Advice to Farmers

Strange to say, after all the painful experience of wheat farmers during the past year in finding an unsatisfactory market for their crop on account of enormous overproduction in exporting countries, there looms up what looks very much like danger of a repetition of the same thing, the decrease in the winter wheat acreage as reported by the Department of Agriculture being much less than it should be. It remains for the spring wheat farmer to take a hand in the game and devote less acreage to that grain than they did last year. Wheat is an easy crop to raise, and farmers are apt to let the other fellow do the reduced area line and fail to do so themselves. As has been pointed out many times, farmers have made a serious mistake by keeping up the wheat acreage to the huge requirements of war times, and now it looks like a continuance of low prices indefinitely or until much less land is sown to wheat. The world's wheat crop for 1923 amounted to 3,461,000,000 bushels, or 500,000,000 bushels in excess of the pre-war era, exclusive of Russia, and that country furnished in the past only 164,000,000 bushels to importing countries. As estimated by the Department of Agriculture, the reduction in the winter wheat acreage amounts to less than 13 per cent, which is much less than it should be to bring about a sufficient rise in prices to allow fair profits to farmers. Talk of outside help in advancing prices had died down, the crops is much needed, and it has future appears to lie in the hands of wheat growers. Diversification of been suggested that in some districts raising flax seed might be a good substitute for part of the wheat acreage.

The Grain Markets

Within a short time cash wheat has declined on the Chicago Board of Trade to \$1 a bushel, comparing with \$1.26 a year ago, with a poor

MARKET SUMMARY

Wheat steady. Corn and oats show some activity. Receipts of beans small and demand slack. Hay easy with large supply. Butter firm. Large supply of eggs. Potatoes steady. Demand for poultry greater than supply. Cattle active and higher. Hogs average higher. Sheep trade strong.

(Note: The above summarized information was received AFTER the balance of the market page was set in type. It contains last minute information up to within one-half hour of going to press—Editor.)

domestic demand for consumption, although recent exports attained very good proportions. Speculators in wheat evidently lack faith in its higher value, and the visible supply is much larger than a year ago. Corn in sight, on the contrary is far less than is usual at the beginning of a year, the crop of 1922 having been pretty closely used up when the 1923 crop began to move to market, and very little is being exported. Corn prices have fallen below those of a year ago, with late sales on the Chicago market around 70 cents a bushel, but it looks high when it is recalled that a little more than two years ago it sold down to 47 cents. Much corn was saved for marketing by the unusually mild weather extending into the winter period, giving live stock a chance to remain in pastures. Rough feed is abundant, and farmers have plenty of corn. Oats have sold around 41½ cents, being slightly lower than a year ago; while May rye sold as low as 73½ cents, comparing with 90½ cents a year ago. With rye so cheap, it seems strange that exporters do not buy more liberally.

The Chicago Live Stock Exchange announces that, effective Jan. 1, the Union Stock Yard and Transit Company will reduce the price of corn fed live stock on this market from \$1.35 per bushel to \$1.25 per bushel.

This saving to the shippers to this market of 10c per bushel on corn is the result of the agreement between the stock yard company and the committee of the exchange.

An Object Lesson

To improve the standard of the live stock in Colorado the Burlington Railroad has traded evenly fifty-eight purebred bulls and boars for the same number of scrubs. All of the scrubs were killed immediately. The total value of the pedigreed animals was \$10,000, while the scrubs were valued at about \$500, or an average of \$250 for the good stock and \$17 for the poor ones.

The Cattle Industry

Most of the time there is an excellent demand for well fattened beef cattle, the times being good and labor well employed throughout the country at extremely high wages. The demand was curtailed temporarily during the holidays, however, when poultry was largely substituted for beef, pork and mutton, and despite much smaller receipts of cattle in the Chicago market than usual, prices suffered sharp reductions. Even the better class of cattle shared in the declines, and killers discriminated to a marked degree against heavy long-fed steers. Occasionally there are upward spurts in prices for weighty steers, but most of the time the local packers and eastern shippers buy them much less freely than the choice light weight yearling steers and heifers. Fancy fat cattle were pretty closely marketed several weeks ago, and few or none are arriving on the market now. Many of the offerings grade rather poorly, and only a small percentage sell near the top figures. There is a moderate demand for stockers and feeders, with low prices for the poorer lots and not many of the choicer kinds on the market. Plenty of cattle are being fed in the corn belt states, and there is no danger of a beef scarcity. The supply of cattle offered in Chicago for Christmas week was so unusually small that desirable light cattle, especially yearlings, sold higher, but heavy steers were neglected and lower. The bulk of the beef steers offered brought \$8 to \$10.75, the choicer yearlings going

at \$10.75 to \$11.75 and the best heavy steers at \$10 to \$11, with no heavy lots going later above \$10.75. Common steers sold down to \$6.25 to \$7.25, and inferior little steers brought \$4 to \$6. Butchering cows and heifers sold at \$3.25 to \$7.50 mostly, and limited numbers of stockers and feeders sold at \$4 to \$7.50, not many going above \$6.50. Calves were scarce and higher at \$5 to \$13.50.

The Hog Problem

In answer to farmers who ask what course to follow in breeding sows and maturing pigs until suitable for marketing, it may be said that this is a big country, and it is not easy to predict the future. Even the Bureau of Agriculture sometimes makes blunders in its estimates. However, late reliable advices indicate a considerable lowering of the number of sows that were bred for spring farrowing, and this would naturally have a marked effect on future markets. A well informed authority estimates a reduction of 25 per cent in the number of sows bred, but this seems an over estimate. At the same time, whether correct or otherwise, it is never wise for farmers to stay out altogether of hog breeding, while at times it is advisable to lower or increase operations. The rush to get hogs marketed is likely to be kept up for several weeks more, and then there will be, probably, a let up and advance in prices. Low prices greatly stimulate the consumption of hog products, and the exports of lard and cured hog meats for the past year mounted up to nearly two billion pounds, being much larger than for the previous year and about twice as much as before the war. Chicago received unusually small supplies of hogs during Christmas week, and the best lots advanced 20 cents. Late sales were at \$6.30 to \$7.25, with heavy butchers at the top and bringing 20 cents more than the best bacon hogs. A year ago hogs sold at \$7.40 to \$8.45 and eight years ago at \$6.70 to \$7.25. Combined receipts in twenty markets for 1923 to late date amount to 31,124,000 hogs comparing with 33,053,000 a year ago.

Good Prices For Lambs

Recent receipts of lambs in the Chicago market were unusually small, and prices had a sharp upward movement, especially for the choicer offerings of fat handy weights, those weighting 90 pounds and over being discriminated against by the packers. Colorado is marketing lambs more freely than is usual so early in the year, and the other day a sale was made of 1,000 lambs which tipped the scales at 77 pounds and brought \$13.50 per 100 pounds. Lambs comprise nearly all the receipts, as is usual at this season. Michigan farmers have marketed large numbers of corn-fed lambs.

WHEAT

Wheat had a holiday week last week and made little change in any direction. They are figuring that American wheat must decline part of the way to meet Canadian wheat, it being admitted that the two must come closer together before the end of the crop year. The belief now is that a great deal of Canadian wheat will be needed on this side of the line in order to fill the needs of bakers who use spring wheat flour. It is said that the spring wheat production here has been too small to meet the needs of consumers and the Canadian grain will be used as a blend to bring up both the quality of the flour and the quantity. The

market shows not hurry about slumping although everything in the line of statistics points in a declining direction. When the market appears easy and ready to slump some buying power comes into the market and the offerings are absorbed. This has happened so often that bears are afraid to follow a decline with more selling and it becomes an easy matter to stop the decline and give the market an upturn. The buying is always credited to eastern dealers who are the chief owners of the American visible supply and willing to continue accumulating supplies in order that wheat may not decline. The holiday week developed nothing of importance in the deal. Stocks continue heavy and there is still no sign of activity in foreign buying. Domestic demand is slow, which is usually the case at this time of year.

OATS

Oats were active last week and prices advanced slightly although buyers were scarce.

Rye

Rye advanced slightly last week in sympathy with other grains.

BEANS

Demand for beans was slow at Detroit and the market was called steady at the close of last week. There was a dull tone to the market in general as there always is during the holiday period. At this time of the year, a great many dealers cut down orders on account of their practice to take inventories and naturally want as little stock possible. It is observed, however, that dealers are not anxious to sell when concessions are demanded.

POTATOES

Potatoes are strong to quiet. At western points they are strong while in the east there are some markets that report trading dull. Eastern dealers stocked up rather heavy previous to Christmas expecting a heavy demand during the holiday period and they find they purchased more than they needed so they are not going to buy any more until they get rid of their present stocks.

HAY

Holiday dullness continued in all markets last week. Receipts are not heavy at present but the demand is limited. There is a good demand for the best grades of all sorts, but low grades are very slow. Bad weather in the west is restricting the movement of hay and this is keeping those markets from becoming overstocked under the light demand.

CORN

Trade in the corn market was a little more active at Chicago last week. Commission houses were buying on a larger scale, and report demand showed some improvement. An active feeding demand in the west is reported. Receipts are not large and bulls feel very confident about future prices. The Detroit market closed firm last week.

MARKET QUOTATIONS

Wheat

Detroit—Cash No. 1 red, \$1.12; No. 2 red, \$1.11; No. 2 white, \$1.12; No. 2 mixed, \$1.11.

Chicago—No. 2 hard, \$1.14½. Prices one year ago—Detroit, Cash No. 2, 1.36½; No. 2 white and No. 2 mixed, \$1.34½.

Corn

Detroit—Cash No. 3 yellow, 77½c; No. 4, 73½c.

Chicago—Cash No. 2 yellow, 72@ 72½c; No. 3, 69½@ 71c.

Prices one year ago—Detroit, Cash No. 2 yellow, 79c; No. 3, 78c.

Oats

Detroit—Cash No. 2 white, 47½c; No. 3, 45½c.

Chicago—Cash No. 3 white, 43½@ 44c.

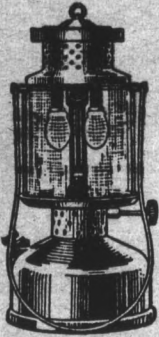
Prices one year ago—Detroit, Cash No. 2 white, 51½c; No. 3, 50c.

Rye

Detroit—Cash No. 2, 74c. Chicago—Cash No. 2, 69½c.

10 Cents

worth of ordinary fuel will keep this Sunray lamp or lantern in operation for 30 hours. Produces 300 candle power of the purest, whitest and best light known to science. Nothing to wear, simple, safe, 10 days' trial.



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As a special introductory offer, we will give you a 300 Candle Power Sunray Lantern FREE with the first purchase of a Sunray Lamp. Lights up the yard or barn like a search light. Write today for full information and agency proposition.

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GARLOCK - WILLIAMS CO., Inc.

2463 RIOPELLE ST., DETROIT, MICH.
WE SOLICIT YOUR SHIPMENTS of live poultry, veal and eggs.

Our commission is 5%.

References: Wayne County and Home Savings Bank, Bradstreet.



POULTRY

(Continued from page 27)

TURKEYS

BOURBON RED TURKEYS: THE BEST SIDE line for a farm. We sold \$400.00 worth last year. Write for prices, etc.
R. W. ROBERTSON, Hesperia, Michigan.

Pure Bred Mammoth Bronze Turkeys. Stiffian Buttercup, S. O. Buff Leghorn and Silver Wyandotte cockerels. Caroline Kunkel, R. 4, Boyne City, Michigan.

Highest Quality White Holland Turkeys. Large, hardy, home-loving birds. Real producers. Toms \$11.00-\$14.00. Hens, \$10.00-\$12.00.
Alvah Stegenga, Portland, Michigan.

PURE BRED BIG TYPE BRONZE TURKEYS. Hugo Strain. Pullets six dollars, Toms nine.
HOWARD E. LEVITT, Crossville, Michigan.

S. C. R. I. RED COCKERELS, PURE BRED Dark and even color. \$3 and \$5 each.
LOUIS MORRIS, Mt. Morris, Mich., R. 1.

LARGE VIGOROUS PUREBRED WHITE Holland Turkeys For Sale.
MRS. EDNA DRIVER, Fowlerville, Mich., R. 3.

PURE BRED GIANT STRAIN BOURBON Red Turkeys.
MRS. RENA MEEK, Belmont, Michigan.

ONE PUREBRED WHITE HOLLAND TOM, \$9.00. A fine bird.
ERNEST MARCH, R. 1, Box 128, Twining, Mich.

Pure Bred Mammoth Bronze Toms One 2 Year old hardy beautiful well marked birds. Write for prices.
Mrs. F. Griffin, Riverdale, Michigan.

WHITE HOLLAND TURKEYS FOR SALE. Prices reasonable. Write for particulars.
E. H. HAWLEY, North Star, Michigan.

GIANT BRONZE TURKEYS FROM PRIZE Winning birds. Large, healthy, unrelated stock furnished.
Mrs. La Verne Brownell, Belmont, Mich.

MAHMOOTH BRONZE TURKEYS, LARGE beautiful birds. Write for prices.
MRS. BEN JOHNSTON, Onaway, Mich., R. 1.

Mammoth Bronze Turkeys. Goldbank Strain. Unrelated stock. Vigorous healthy birds. Write for prices.
Mrs. Perry Stebbins, Saranac, Mich.

THOROUGHbred GIANT BRONZE TOMS FOR Sale. Large beautiful birds. Michigan's best strain. Write for prices.
MARY A. JOYNT, Onawa, Mich.

UNRELATED STOCK, VIGOROUS HEALTHY Birds. Write for prices. Bronze Turkeys, a nice flock of both Toms and Hens.
ALONZO PRATT, LeRoy, Michigan, R. 3.

PURE BRED LIGHT BRAHMA COCKERELS \$4.00 each.
MRS. E. B. WILLITS, Reading, Michigan.

SEND \$3.00, \$5.00 OR \$7.50 AND I WILL ship by express the best S. C. R. I. Red cockerel you can get for the money.
F. W. KENDRICK, Dryden, Michigan.



We can use a few earnest men and women part or full time in soliciting subscriptions and acting as our agents. Write

Circulation Manager
THE BUSINESS FARMER
Mt. Clemens, Mich.

Prices one year ago—Detroit, Cash No. 2, 93c.

Beans
Detroit—C. H. P., \$4.75 per cwt.
Chicago—C. H. P., \$5@5.50 per cwt.

Prices one year ago—Detroit, C. H. P., \$7.40 per cwt.

Potatoes
Detroit—\$1.26@1.33 per cwt.
Chicago—\$1.25@1.45 per cwt.

Prices one year ago—Detroit, \$1@1.10 per cwt.

Hay
Detroit—No. 1 timothy, \$22@23;
No. 2, \$20@21; No. 1 clover, \$20@21; light clover mixed, \$21.50@22.

Chicago—No. 1 timothy, \$26@27; No. 2, \$24@26; No. 1 clover, \$23@25; light timothy and clover mixed, \$24@26.

Prices one year ago—Detroit, No. 1 timothy, \$16.50@17; standard, \$16@16.50; light mixed, \$16@16.50; No. 1 clover, \$14.50@15 per ton.



Week of January 6

LIGHT rain or snow flurries are probable in Michigan during first part of the week of January 6 but before the middle of the week there will be sunshiny days and clear skies. Following the middle part of the week we look for renewed storminess with an addition of gales and some sleet. At the close of the week temperatures will be somewhat colder.

Week of January 13

Clear, cold weather is expected for the early part of the week of January 13 but by the middle of the week there will be a decided moderation in the temperature. There will be thawing conditions in some parts of this state and winter rains but the change to lower temperatures during end of this week will change the rain to snow flurries.

1924 to Average Warm

The year 1924 as a whole will average warmer than normal with the summer and early fall months producing rainfall above the average. These statements, while correct from a statistical standpoint, should be taken advisedly by the average farmer whose use of such a forecast is naturally limited to his own fence line. We mean by this there will be many extremes and that each locality will have its own modifying effect. These changes will be considered from week to week in this column.

We foresee a mild winter but with numerous temperature extremes during January and a cold spell from about two weeks before to two weeks after the solar eclipse in March. We look for quite a little snow and cold close to the eclipse date.

Fall Forecast Verified

Our forecast of a mild, dry fall as written last June has been verified. This weather not only hindered the holiday trade and probably made hundreds of dollars of difference in the northern states but also upset the wool garment trade and many other commercial enterprises depending upon cold and snow. On the other hand, the weather added hundreds of dollars to the farmer's next year's profits because he was able to get a lot of next springs work done this last fall.

Our prediction of a "White Christmas" was also verified in most counties of the state.

Some Trip

Motorist: "Say, buddy, how far is it to Bingville?"

Schoolboy: "Well, mister, the way you are headed now it is just 24,996 miles; but if you turn around it is only four miles.—Exchange.

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

Genuine Army Goods At LOWEST PRICES "America"

SEND NO MONEY

Examine goods and if you are not more than satisfied with your bargain, we will gladly return your money.

PAY ON ARRIVAL



4 Buckle Cloth O.D. Wool Top Arctic Coats \$1.45

Arctic tops of heavy snowproof cashmere, full lined with heavy warm fleece, double corrugated soles, reinforced seams. They have been used very little and are in perfect condition. If you want a good over shoe for less than pair of rubber order today as stock is limited. Sizes 7 to 12.

Army regulation O. D. wool blouses—slightly used, but in perfect condition, in fact like new. Made of fine wool serge and melton with four pockets. Sizes 34 to 40. Plus Postage.



NEW O.D. 269 WOOL COATS

\$5.00 Would not duplicate this value.

U. S. Army O. D. wool coats made of fine wool serge and melton, have four pockets, and all are lined. Sizes 35 to 44. Plus Postage. Extra sizes 46, 48, 50 and 52. \$2.69 Postage.

Khaki Coats (Blouses) 39c

Army regulation cotton Khaki coats, reclaimed by the government. Just the thing for outdoor wear as for hunting, camping, farm work, etc. Four pockets, metal buttons. Sizes 32 to 37. A dollar value at our special price 39c Plus Postage.

New Khaki Blouses. Sizes 34 89c Plus Postage.

Genuine army regulation, pure wool sock with reinforced heel and toe. Medium heavy weight. Worth 70c a pair at only 39c a pair for Plus Postage.

All Wool Sox 3 Pair for 89c 89c Plus Postage.

All Wool O.D. Trousers \$2.98

U. S. Army O. D. wool serge and melton trousers. Well tailored, made of excellent quality 20 oz. wool serge and melton without cuffs. Have four pockets of extra quality drill and the trousers are double stitched throughout. Worth at least \$6.00. Sizes waist 28 to 38. Plus Postage.

Extra Heavy O.D. Wool Trousers made of 28 oz. melton. Wonderful for cold weather. Sizes 34 to 42. \$3.59 Plus Postage. Sizes 44 and 46 \$3.89 Plus Postage.

O.D. WOOL ARMY GLOVES 29c PAIR

Worth 75c a pair at only 29c

Regulation army olive drab all wool heavy knitted gloves with extra long snug fitting wristlets. In both warm and durable. Can also be used as a liner for a chopper mitt. Order several pairs as per pair. 29c Plus Postage.

ARMY HORSE BLANKETS \$2.29

2 for \$4.49

Brand new Government Horse Blankets. Made of heavy treated waterproof duck, burlap lined, weight about 7 pounds. This blanket, each \$2.29 Plus Postage. Set is worth at least \$4.50, each \$2.29 Plus Postage.

NEW ARMY O.D. WOOL BREECHES \$3.47 PLUS POSTAGE

28 oz. Melton

Brand new heavy Army O. D. all wool breeches made of best wool serge and melton materials, with large extra patches on knees. Plus Postage.

Sizes 28 to 46. ALL WOOL NEW O. D. WRAP LEGGINGS. A bargain at 69c Plus Postage.

WEB BELTS Made of olive drab webbing with metal buckles and tips. Brand new—10c Plus Postage.

ARMY PURE WOOL UNDERWEAR 89c

Men stock up on these fine suits of wool underwear made for the U. S. Army. Our price is only 89c per garment. You would rightly expect it to be \$1.50. Shirt sizes 34 to 42. Drawers 30 to 40. 89c Plus Postage.

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\$44 Buys the New Butterfly Jr. No. 2 1/2

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offers its services to the Farmers of Michigan as a high class, reliable commission house for the sale of Dressed Calves and live poultry. Write us for information how to dress and ship calves to market. \$250,000 capital and surplus. 34 years in business in the same place and same management.

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100 cars or any part. Wheat, oat, rye, barley or mixed. Must be sound and clean. January shipment. Car lots good hay and potatoes at all times. Quote at once.

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5003 Trumbull Ave. Detroit
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Reference: First National Bank of Detroit.

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80-ACRE MICHIGAN FARM WITH STOCK, Tools, Crops, \$1000 Cash. Owner a business man with distant interests, sacrifices all for amount insurance buildings; fertile district, fine co-operative creamery, splendid high school, close 2 depot towns; 3 noted lakes; 38 acres loamy fields, 10-cow pasture, woodlot, 55 fruit trees, grapes, berries; excellent 2-story 9-room brick house, porches, 2 barns, granary, windmill, etc. \$3600 gets it, horses, 3 cows, poultry, tools, implements, vehicles, crops etc. included if taken now. Part cash. See picture and details page 38 New Illus. Bargain Catalog, covers many states. Copy free. STROUT FARM AGENCY, 427KJ Marquette Bldg., Chicago, Ill.

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\$7.50
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Metal-to-metal construction is not a new thing. We just put in practice the time-old knowledge that nothing can wear like metal. Everywhere there is wear or strain we have placed metal against metal. The harness is as light as any other harness, yet every point of contact is protected with tough, high quality metal shaped and fitted so that rounded steel parts take away all corner strains and pulls. First there is the finest leather that can be tanned then metal to protect the leather.

The superior quality of the leather in Olde-Tan Harness is recognized throughout America. 70-year-old tanning skill is behind it. It is tanned by a tanner-manufacturer and then made into Olde-Tan Harness. The tanner-manufacturer care-

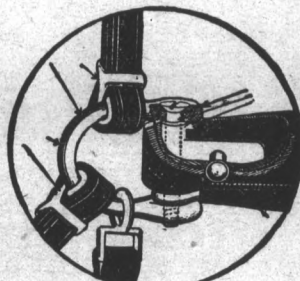
fully supervises every step through the tannery and the factory until the harness is ready for your horses.

When you buy Olde-Tan Harness you don't have to worry about the quality of the leather. You are sure of the best. The high grade leather and metal-to-metal construction insures at the very least double harness wear.

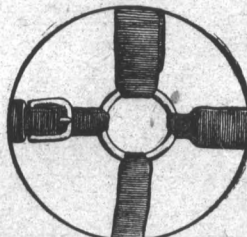
Did your last harness last 30 years? There are hundreds of Olde-Tan Harness in use today that old and older. What is more, they have required almost no patching — no mending during all those years. There are positively no places for Olde-Tan Harness to wear out. We give a guarantee which protects you during the entire life of the harness.

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But no place on Olde-Tan where there is excessive strain will you find a buckle because buckles cut down the strength of a strap 30%. So it is from beginning to end—every item having received such practical and common-sense consideration that you instantly appreciate its all around superiority. Our free book tells you all about these many special features of Olde-Tan Harness. Be sure that you don't make a mistake on your next harness. Write for and read this harness book before you buy.



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