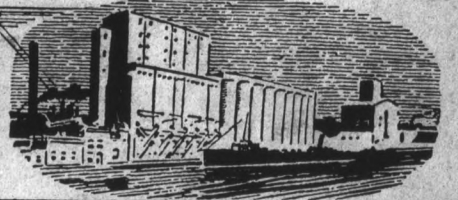


The Michigan
BUSINESS FARMER

(Keep the Business Farmer coming—
see Coupon page 25)



An Independent
Farm Magazine Owned and
Edited in Michigan



VOL. X, NO. 11

MOUNT CLEMENS, SATURDAY, JANUARY 20, 1923

\$1 PER YEAR



Not too Early to Get the Tools in Shape!

Don't Forget Farmers' Week, Michigan Agricultural College, East Lansing, January 29th to
February 2nd, 1923—Dr. Friday Extends You a Personal Invitation—see page 3.

Current Agricultural News

JERSEY MEN MEET DURING FARMERS' WEEK

THE annual winter meeting of the Michigan Jersey Cattle Club will take place during Farmer's Week at the Michigan Agriculture College January 30th and 31st, Tuesday and Wednesday. The first meeting will be held at 10:30 a. m., Tuesday and the members will be addressed by three speakers. Prof. O. E. Reed of the College will speak on "The Future of the Jersey in Michigan." Mr. H. F. Probert will address the assembly on "Breeding for Type and Production." Also an interesting talk will be given by Prof. H. E. Dennison of the College. A business meeting is to be held on Wednesday and at that time officers for the new year will be elected. Also there will be a general discussion on breeding, feeding and testing led by Pres. Probert. All Jersey breeders in Michigan are cordially invited and urged to attend.

CHICAGO PRODUCERS IN FIRST PLACE

THE Chicago Producers' Commission Association stepped into first place at the Union Stock Yards in Chicago the week ending January 6th. The weeks business of 246 cars was greater than that of any other firm at the yards, where there are more than 100 commission houses. The Chicago Producers have been juggling between second and third place for several months, and have finally reached the top at the Chicago terminal. It is regarded as a sensational achieve-

ment of the farmers' live stock marketing program.

The Producers stood in first place at Buffalo, Indianapolis and Peoria last week as well as in Chicago. This is the association of which Michigan is a member. The Producers' Live Stock Commission Association at East St. Louis stood in second place with 135 cars.

The Producers at Indianapolis marketed 230 cars, or one-fourth of all the live stock in the Indianapolis yards. At Buffalo the Producers had 16 per cent of all the live stock—116 cars.

POTATO PRODUCERS MEET FEBRUARY 1 AND 2

THE Michigan Potato Producers' Association will hold a big annual meet and potato show during Farmers' Week. The meeting will last for two days, Thursday morning at 9:00 and the last meeting will begin Friday at the same hour. "What the College is doing for the Potato Producers" will be the topic discussed by Prof. J. F. Cox, Farm Crops Department of the College. Thomas Buell, president of the association will take for his talk "Michigan's Place in the Production of Certified Seed Potatoes." Hal B. Fullerton, director of agriculture, Long Island Railroad, Medford, Long Island, N. Y., will talk on "Healthy Spuds for Long Island." Prof. J. W. Weston, potato specialist of the College will give a report of the season's experimental work with potatoes. And Prof. J. E. Kotila of the Botany Department of the College will dis-

cuss the potato diseases in Michigan. On Friday Prof. Wm. Stuart, U. S. Department of Agriculture, will talk on "Interstate Tests for Bettering the Quality of Certified Seed Potatoes." Sec'y-Treas. H. C. Moore will make a report for the past year. Also a general business meeting and election of officers will take place. Classes and list premiums in the potato show are as follows:

Petoskey Golden Russet (Russet Rural) Exhibit of 32 potatoes: 1st prize \$20; 2nd prize \$15; 3rd prize \$10; next 3 best exhibits, each \$5.

Any other variety, exhibit of 32 potatoes; 1st prize \$15; 2nd prize \$10; 3rd prize \$5; next 5 best exhibits, each \$2.

Boys' and Girls' Potato Club, Individual exhibits of 32 potatoes each, (any variety) 1st prize \$5; 2nd prize \$3; 3rd prize \$2.

The Michigan Potato Growers' Exchange will award a silver cup to the individual winner of the State Club Championship provided there at least 20 exhibits entered. The State Championship will be decided on the Four Point Basis: Quality, Yield per acre, Report and Profit, being considered according to percentage given on report blanks for the various projects. No exhibits will be eligible to compete for championship prizes unless the report and story have been sent to R. A. Turner, State Club Leader, East Lansing, Michigan.

Certified Seed Sale Exhibit: Entries in this class are not in competition for prizes. They are composed of sample 100 pound bag seed stock. Growers of certified seed are encouraged to exhibit samples of their certified seed that are representative of the stocks they have for sale. The samples will be seen by several

thousand farmers and will furnish the exhibitors a good means of advertising their seed potatoes.

General Suggestions for Selecting

Select 32 potatoes that are uniform in size, shape and color and that average from 8 to 10 ounces each in weight. The potatoes should be of the same variety and true in type. Do not select potatoes that show scab, black scurf or other diseases. The potatoes should be clean, bright, firm and free from blemishes, growth cracks and any mechanical injuries.

Clean the potatoes with a soft brush or woolen cloth. Do not wash them. Wrap the potatoes separately in paper and pack them tightly in a stout wooden box that is well lined with paper.

Shipping Suggestions

The grower should place on the inside of the box a card bearing his name, address and the name of the variety. Ship the potatoes by prepaid express so that they will arrive at East Lansing on or before Jan. 25. Ship the potatoes to the Michigan Agricultural College, Farm Crops Department, East Lansing, Michigan and mark the package, "Potatoes for Exhibit."

Potatoes that are sent by a Boys' and Girls' Club member should be marked "Club Exhibit." Certified seed potatoes for the 100 pound Seed Sales exhibit should be double sacked.

Competition is open to any potato growers in Michigan. No entry fee will be charged exhibitors. If interested write Mr. H. C. Moore, Sec'y-Treas., East Lansing, Michigan.

SAGINAW COUNTY GRAIN SHOW

A MEETING of the Saginaw Grain Growers Association was held at the Court House, January 2nd. Arrangements were completed for the First Annual Grain Show to be held in Saginaw, January 18th, 19th, and 20th, 1923.

Secretary Douglas Bow announces there will be complete classes for corn, wheat, oats, rye, barley, beans, and other small grains, seeds and potatoes. There will be about 60 premiums in each class.

All grain growers in Saginaw and adjoining counties are competing at this show. There will be no entry charges and admittance is free. Judging will be by competent judges from M. A. C.

Saginaw Valley Grain Growers have recently won many honors at the National Show just concluded at Chicago. They won places on all entries sent and brought home more honors than any other county in Michigan.

FOR FARM LOAN INCREASE

HERBERT Quick, who was one of the Federal Farm Loan Commissioners at the time the Federal Farm Loan System was established, has declared himself in favor of the Strong-Norbeck bill which would amend the Federal Farm Loan Act making it possible to lend as high as \$25,000 to an individual through the Federal Farm Loan Banks instead of \$10,000, the present limitation, and would permit the appointment of agents of the 12 Farm Land Banks to make loans without the forming of local co-operative organizations providing for a permanent board for the land banks and permitting farmers to place mortgages on their land in order to pay off debts already contracted.

Mr. Quick said: "The Joint Stock Land Banks enjoy the privilege of making larger loans and that the same privilege should be accorded to the co-operative loan associations which can make amortized loans from one-half to one per cent cheaper than the Joint Stock Land Banks. By increasing the individual loan limit from \$10,000 to \$25,000 the interest of the small borrower will not be jeopardized and the Federal Land mortgages will continue to be the excellent investment which they have been to date.

Nearly half the exports of corn from the United States in 1921—58,582,806 bushels—went to Canada, according to the United States Department of Agriculture. Much of this corn, however, was later shipped to Europe, Canadian statistics showing that only 12,000,000 bushels were imported from the United States for consumption.

How to use Long Distance Economically

In your use of Long Distance, you can get better and cheaper service if you know the way in which Long Distance messages have been classified for your convenience.

"ANYONE" CALLS—When you do not need to speak with a particular person but will talk with anyone who answers the call, tell your operator you wish to make an "Anyone" call. "Anyone" calls can be made quickly and cost less.

"CERTAIN PERSON" Calls—These are calls in which you tell the operator you wish to speak to a particular person. "Certain Person" calls cost more and take longer than "Anyone" calls because more time and expense are required to locate the person wanted.

On a "Certain Person" call, if you do not talk with your party, through no fault of the Telephone Company, a "Report" charge applies, providing you are given information concerning the person called.

EVENING CALLS—Between 8:30 and 12 o'clock in the evening, "Anyone" calls can be made at a reduced rate—approximately one-half the day cost. "Certain Person" calls cost the same day or night.

NIGHT CALLS—After midnight and before 4:30 a. m., "Anyone" calls may be made for about one-fourth the day rate.

APPOINTMENT CALLS and messenger Service—You can arrange an appointment to talk at a definite time by telling the operator. You can have a messenger bring your party to the telephone by requesting message service. Both of these calls cost more than "Anyone" or "Certain Person" calls.

MICHIGAN STATE TELEPHONE CO.

SATURDAY
JANUARY 20th,
1922
—
VOL. X, NO. 11
—

Being absolutely independent
our columns are open for the
discussion of any subject per-
taining to the farming business.

"How to the line, let the chips fall where they may!"

The Michigan BUSINESS FARMER

"The Only Farm Magazine Owned and Edited in Michigan"

Published Bi-Weekly
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\$1 PER YEAR
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ter, August 22, 1917, at the
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Mich., under act of March
3rd, 1879.

We'll Meet You Farmers' Week at East Lansing

*This is the year you ought to take Mother and Enjoy a Profitable Week at the Biggest
Round-up of Farmers Ever Staged in Michigan*

INDICATIONS are that this year will see the largest attendance in the history of Farmers' Week. More than 5000 registered in 1922, and this record will be broken, it is expected by a considerable margin.

Thirty different state agricultural associations and groups will hold their annual meetings at M. A. C., during Farmers' Week. This number is nearly twice as large as that for any previous year. The Michigan Livestock Breeders and Feeders Association, with its dozen or more association groups, will meet during Farmers' Week for the first time. In other years, the livestock men have held a separate meeting earlier in the winter. Their addition to the Farmers' Week groups has brought the number up so high this year. Attendance at these association meetings alone will guarantee a big crowd for Farmers' Week, in addition to those who do not belong to any of the different groups.

Speakers listed for Farmers' Week this year include many national figures and the program will be one of the strongest ever given during Farmers' Week.

David Friday, new president of the Michigan Agricultural College, will be appearing before his first Farmers' Week crowds, and is scheduled for two stirring addresses, which will be full of "meat" for agricultural people of the state. Friday was unable to attend last year's Farmers' Week because of important investigational work at Washington, and his addresses this year are looked forward to with double interest.

Other headliner among the speakers will be Congressman Sydney Anderson, of Minnesota, brilliant agricultural leader at Washington; Signora Agresti, of Rome, Italy; Eugene Davenport, former dean of agriculture at Illinois University, and famous writer; Donald Conn, transportation expert of Washington; Dr. G. F. Warren, famous farm management specialist at Cornell University; and Charles E. Snyder, editor of the Chicago Drovers Journal.

Many other prominent figures in state and national agricultural life will appear upon the individual programs of the different association meetings.

Exhibits at this year's Farmers' Week are to be new and interesting. Most of the material will center around livestock production, in honor of the attendance of the various livestock associations at Farmer's Week.

One of the interesting displays will be the educational farm crops exhibit which won high praise for Michigan at the recent International Grain and Hay Show. Entries in the annual Michigan Crop Improvement Association show will also be on display. This show will bring together the finest grain samples of its class in America, and will include many of the entries with which farmers of Michigan cleaned up at the International.

The Horticultural Show, an annual feature of Farmers' Week prepared by students of the college, will be housed as usual in the College Armory. Extensive displays of fruit and flowers will transform this building into a veritable fairyland.

Special exhibits on home economics, farm mechanics, soils, dairy, livestock, and all other phases of agriculture and rural life will be on display in their respective booths.

For the Women

A special program of interest to the women has been planned which will be vital to every woman in the

A PERSONAL INVITATION TO READERS OF THE BUSINESS FARMER FROM PRESIDENT FRIDAY:

TO the Editor of Michigan Business Farmer:—Will you kindly extend to the readers of your journal an invitation from the State Board of Agriculture and myself to be present at the Michigan Farmers' Week which will be held at the Agricultural College at East Lansing, January 29th to February 2nd.

During this week we hope to have at the College the leaders of every phase of the agricultural industry in the state. Special programs have been arranged at which the problems of the various phases of agriculture will be discussed by people technically competent to bring to their audiences the latest developments and discoveries.

In addition to these meetings there will be general meetings every afternoon and evening at which men of national reputation will address the conference. The subjects of taxation, transportation, the future of prices, and general agricultural policy will be especially featured at these afternoon and evening meetings.

I consider such a gathering of the people engaged in agriculture especially important at this juncture in the affairs of our state and nation. There are an unusual number of problems confronting our industry which call for sound leadership based upon a competent knowledge of facts. This meeting will do much to discover and develop just such leadership.—David Friday, President.

state, and to the farmer's wife especially. A large attendance this year, as in previous years, is being looked forward to.

Dean Louise H. Campbell, State Leader of Home Economics Extension Work, who has this year been made head of the Home Economics Division of the College, with her staff of Extension and Resident Instructors, have been working on the program for several weeks and they insure to every woman who attends, a week of profit and pleasure.

Dr. Marie Dye, Research Specialist in Nutrition, who has come to the College from the University of Chicago, has been feeding a group of rats with special diets for experimental tests. Dr. Dye appears on the program for Farmers' Week and will illustrate her talk on "Experimental Work in Nutrition" with her rat colony. The Nutritional Research Department is in a position to render valuable assistance to the home makers of this state, under Dr. Dye's able leadership.

PROGRAM OF THE WEEK

GENERAL sessions—Afternoons and evenings on Monday, Tuesday, Wednesday, and Thursday, January 29—February 1, and on Friday morning, February 2. (These meetings will all be held in the college gymnasium. Motion pictures and other entertainment features will be mixed in with the main Farmers' Week addresses at these meetings.)

Housewives Congress—Tuesday, Wednesday, Thursday, Friday, January 30—February 2. All meetings to be held in College Women's Building.

Monday, January 29

Poland China Breeders Ass'n	Home Demonstration Agents
County Agricultural Agents	Boys and Girls Club Leaders

Tuesday, January 30

Breeders and Feeders Ass'n	Duroc-Jersey Breeders Ass'n
Hereford Breeders Ass'n	Muck Farmers Ass'n
Jersey Cattle Club	Beekeepers Ass'n
Ayrshire Breeders Ass'n	Boys and Girls Club Leaders
Aberdeen-Angus Breeders Ass'n	Hampshire Swine Breeders Ass'n

Wednesday, January 31

Crop Improvement Ass'n	Horse Breeders Ass'n
Sheep Breeders-Feeders Ass'n	Beef Breeders Ass'n
Oxford Sheep Breeders Ass'n	Soils Ass'n
Red Pooled Breeders Ass'n	Muck Farmers Ass'n
Guernsey Cattle Breeders Ass'n	Beekeepers Ass'n
Holstein-Friesian Ass'n	Poultry Ass'n
Swine Breeders Ass'n	County Y. M. C. A. Secretaries
Chester White Breeders Ass'n	

Thursday, February 1

State Farm Bureau	Soils Ass'n
Crop Improvement Ass'n	Poultry Ass'n
Shorthorn Breeders Ass'n	County Y. M. C. A. Secretaries
Potato Producers Ass'n	High School Boys

Friday, February 2

State Farm Bureau	County Y. M. C. A. Secretaries
Potato Producers Ass'n	High School Boys
Poultry Ass'n	County Red Cross Chairman
Rural Press Ass'n	

Saturday, February 3

Michigan Rural Press Association

Miss Mariel Hopkins, Nutritional Specialist with the Extension Department, will discuss the "Extension Program of Nutrition." Miss Hopkins is well known throughout the state for her splendid work in behalf of better health through correct feeding.

Michigan Agricultural College has always given to her women students unusually fine social supervision, through their home life in dormitories, supervised by competent and able House Mothers. Mrs. Maude C. Thompson, Social Director at M. A. C., is in charge of this work and will speak on "The Home Life of Girls at M. A. C." The Shephert-Towner Maternity Bill, recently passed by Congress, is vitally important to every woman at this time. No person in Michigan is better prepared to discuss this subject than Dr. Blanche Haines, of the State Department of Health, who is in direct charge of the administration of this Act in this state.

Miss Ethel G. Webb, who has been connected for several years with the Clothing Economics Departments of the University of Chicago and Carnegie Institute of Technology, has recently joined the college faculty. Her long experience with the work of clothing selection and construction makes her especially suited to discuss "Some Stumbling Blocks in Clothing Construction," for the women in attendance at Farmers' Week.

Miss Eunice Ryan, who has recently joined the Extension Faculty as Clothing Specialist, is bringing to the women of Michigan the benefit of years of special training in clothing work. She has a real contribution to make to every farm woman and farm home in her talk on "Hygienic Requirements of Clothing."

In addition to the speakers, several prominent persons from outside will have leading places on the week's program for women.

Mrs. W. R. Alvord, Ex-president of the State Federation of Women's Clubs, appears on the program at one of the joint evening meetings. Mrs. Alvord is a speaker of poise and forcefulness and always has a message of vital interest for everyone.

Miss Grace E. Frysinger, Field Agent in Extension Methods, States Relation Service, Washington, D. C., will speak on the subject "The Farm Home as the Fountain Head of Social and Economic Organization of the Nation."

Miss Bess Rowe, Field Editor of the Farmers' Wife, is to talk on the results of the contest recently conducted by her paper on "Do You want your Daughter to marry a Farmer?" This contest attracted nation wide attention and the conclusions drawn by Miss Rowe are sure to be of interest.

Between the regular meetings, many special features will be offered. Exhibits of work done by the home economic students, in all of their courses, will be on display during the entire week. Through these the regular work of the College can be observed and judged.

A rest room, or silent room, will be provided in the basement of the Woman's Building, where women may lie down and rest at any time. There will also be a nursery where children may be left in charge of competent students trained in the health and care of children, so that mothers may be free to give their whole attention to the meetings.

The teaching staff and students want every woman in the state to feel that M. A. C., is her College and their whole time and effort will be spent during the Farmers' Week in
(Continued on page 23)

Fifteen Years of Wood Life Tragedy

James Oliver Curwood, Native Son and Internationally Known for His Stories of Forest Life, Appeals for the Conservation of what Little Remains in Michigan

(Contributed especially for The Business Farmer.)



James Oliver Curwood

Born near Owosso, Michigan and a resident of this state who has won international fame as the author of books on the great Canadian Northwest. Author of "Nomads of the North," our recent serial and "The Hunted Woman," the wonderful story now appearing in every issue of the Business Farmer.

MORE than once I have been asked to give the fundamental reason for my fight to preserve what remaining wild life and forests we still have in my native state of Michigan—a bitter fight waged against those same elements of political machinery, incompetence and lack of practical intelligence which have played such deadly parts in the slaughter of natural resources throughout our country, and always my mind has swept back over the tragedy of the last fifteen years to find its answer. While my own state, where I was born and where I have lived for almost forty years, is in my opinion the darkest blot on the map of the American continent when it comes to the matter of forest destruction, and while I am confident it will take a quarter of a century of intelligence and technical ability to give back to us the wild life which lack of conservation has lost to us in a pitiable fraction of that time; and while, moreover, I shall continue to wage war until big and broad-minded men, specially fitted to direct the conservation machinery of a mighty state replace the present system of political appointments, I am convinced that every true conservationist should put his shoulder to the "national wheel," and pull for the country at large as well as for his local environment if the ultimate and greater triumph is to be achieved.

We Americans are, and have been, a breed of destroyers and of monumental egoists; in the blindness of self-conceit we have reaped but we have not sown; on the treacherous sands of human "almightiness" we have set ourselves up on pedestals, and we are only now beginning to see our sins and our weaknesses. My own life has been typical of millions whose boyhood began a generation ago. From the beginning, as a boy, I did not need argument or education to tell me that I was the greatest of all created things—that my particular brand of life, of all life on earth, was the only life that God intended to be inviolate. That fact was pounded home to me in the public schools; it was preached to me in the churches. I was part and parcel of the great "I Am." For me, all universe had been built. For me, the Great Hereafter was solely created. All other life was mere incidental, and made especially for my benefit. It was mine to do with as I pleased. In a mild sort of way, the school and the church told me to have a little charity, and not to "hurt the poor little birdies." But at the same time both religion and school instilled into me that I was next in place to God, and that all other life, from the life of trees and flowers to that of beasts and birds, was put on earth for my special benefit, and that no other life had a right to exist unless the human ego saw fit to let it live.

While we are slowly but surely awakening to the deadly error of these teachings of our youth, and while the necessity for a proper conservation of the resources which God gave to us in the beginning is becoming a living thought throughout our commonwealth, in our homes, our churches and our schools, one still cannot feel himself a fighter in the ranks until he or she realizes the awful devastation of the past few years. Our youth did not pass through the grimmest of that tragedy, and millions of boys and girls now in our public schools, our conservationists of tomorrow, must depend upon us for those visions of the past by which they will be guided to the possibilities of the future.

Fifteen Years Ago

For those who have not seen the Great Change with their own eyes, and who have not been in a position to witness the tragedy of destruction—not only in a local environment but in a scope covering two-thirds of a continent, my own experience of fifteen years in the open spaces may be of interest, if not of actual value, in showing how swiftly the destruction of our wild life has swept upon us, and how quickly we must now act to save it from utter annihilation.

With the beginning of those fifteen years, almost the entire northern half of our continent was one vast breeding ground of wild life and this in spite of the fact that for nearly two hundred years the Hudson's Bay Company had steadily used large areas of it as their hunting and trapping grounds. Fifteen years ago the buffalo were gone, it is true, with the exception of a few survivors in the Athabasca country. In those days I was employed by the Canadian Government as a sort of "last frontier" investigator and explorer, and I had unexcelled opportunities for coming in contact with the wild life between Montreal and the Pacific. On every railroad then running in western Canada the daily recreation of passengers was counting coyotes and antelopes. The buffalo trails and wallows were then, and even later, plainly visible from the car windows, and over vast areas the prairies were criss-crossed with them. But in the face of this tragedy of the recent passing of the buffalo people marveled at what seemed to be the inexhaustible supply of wild life still left. From the car windows wildfowl could be seen not

only in thousands, but in countless millions. Every bog-hole and lake was black with them. One early autumn, when I rode several hundred miles horseback from Medicine Hat to the Caribou Mountains to run down a rumor of buffalo living there, I was not for an hour at a time where I could not hear the thunder of the wings of rising wildfowl. For years I looked upon the tragedy of settlers slaughtering ducks and geese literally by the wagon load. At Dundern, Saskatchewan, I was the guest of a wealthy rancher when a hunt was planned. There were six of us in the party that visited a lake several miles out in the prairies. Shooting began at dawn. Marksmanship was not necessary, and by the time the evening shoot was over the kill was over six hundred ducks and filled a wagon. In those days game was slaughtered in this way, cleaned and placed in ice houses for winter use.

Occasionally, in the years that followed, I went over these same tramping grounds. Year by year I watched the going of the wildfowl and the prairie chicken. During a "flight" season of wild geese I have counted as many as thirty straw-stacks on a single night, around which the slaughterers were gathered to kill the geese that circled low in the illuminations.

Result Appalling

The result was appalling. Today, at the end of those few years, if you ride from Winnipeg to the mountains on either the Grand Trunk Pacific or the Canadian Pacific the probability is that you will not see even a coyote. Surely you will not see an antelope. The ponds and lakes once black with wildfowl will occasionally hold a family of ducks, or a small flock. There are no wild geese; even prairie chickens create an unusual interest when they are seen. The greatest breeding grounds that North America has ever known outside of the Arctic tundras, are gone. In those days of a wild life paradise I saw a letter to the factor at Fort Churchill, on Hudson's Bay, from the factor at York Factory, lower down on the Bay, in which the latter asked if he might purchase or trade for a supply of wild geese, as his own luck had been poor that year. In reply, the factor at Churchill sent back word that he could not spare any geese, as his hunters had also had exceedingly bad luck that autumn, and had only succeeded in killing eight

thousand geese, which was not as many as he could use in his district during the coming winter.

And yet, in spite of that, it has not been the Hudson's Bay Company's trappers and hunters or the Indians who have destroyed the wild life of Canada, from which the United States have very largely drawn their supply. The settler and the hunter, together with political stupidity and selfish ambition, have been almost entirely responsible in our own country. Not only have they "hogged" the wild life of lake and stream and forest, but so long as their own immediate wants have been filled they have not cared but little of the future. They have not made intelligent laws, and when such laws have occasionally been made they have not used the power of their vote to demand an enforcement of them. In almost every instance true conservation, where it has won out at all, has had to ride over rotten politics.

Within these same fifteen years I went ahead of the "line of rail" of the Grand Trunk Pacific, through Yellowhead Pass and the British Columbia mountains. This was before a mile of steel had been laid beyond the prairie foothills, and I found a game paradise which some might consider an exaggeration if I could describe it as it actually existed. Bear, deer, sheep, goat and caribou literally swarmed in these regions. At one time I counted eleven bears on one mountain slide, all visible at the same time, and I have seen bands of sheep which numbered as high as a hundred. Several times, since those days I have gone through these same regions. The so-called "sportsman" with his automatic and his pump-gun, has wrought frightful havoc. Today one must outfit a pack-train and go deep into the mountains for days and weeks at a time to find a single grizzly or sheep, and he is a fortunate hunter if he brings home either. During one season which I spent in the Firepan Mountains gathering material for my "Grizzly King" I saw twenty-seven grizzlies, innumerable blacks and hosts of other game. On my last trip I spent six weeks and saw three bears.

Destruction Farther North

Still farther north one sees the result of modern day destruction. Less than fifteen years ago I was in the Artillery Lakes country at the time of the annual migration of caribou. All one day what was supposed to be the main herd crossed a stream, and three different individuals made their estimate of its numbers, added the estimates, then divided the total by three, which approximately figured the herd at thirty thousand head. Two days later an Indian brought information that this was not the main herd, but a branch of it, and that the main herd was still farther north!

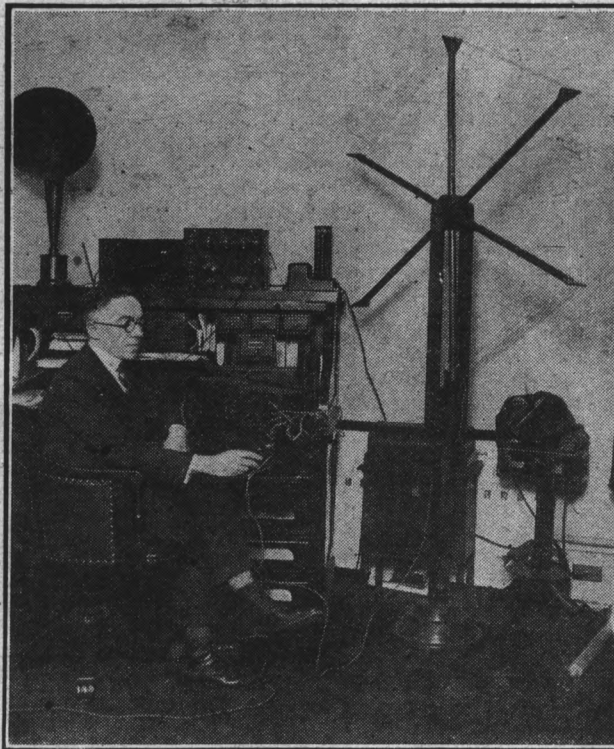
Today, even to the Arctic coast, a caribou herd of a thousand head, even in migration, is unusual. All through the northland they have split into smaller bands. Rifles have come in with the white man. The slaughter of the wildfowl life of North America on the prairies of Western Canada and our own western states has also sounded the doom of the hoofed beasts. We must remember that the geese and ducks on Lake Superior today were on the Arctic tundras a few weeks ago, and will be in the tropics a few weeks hence. A slaughter in Florida may bring hunger and starvation to the Indian three thousand miles north. There was a time when the Arctic tundras were what the Indians conceive their Happy Hunting Grounds to be. They were the Canadian prairies, multiplied ten times; it seemed as though the wild life of the earth gathered there to breed. But the man from Saskatoon, Winnipeg, Topeka, Milwaukee, Detroit, and St. Augustine has robbed

(Continued on page 24.)



James Oliver Curwood at his camp with his Indian guide and dog team, on the shores of Great Slave Lake, north of the arctic circle in northern Canada. Mr. Curwood is a true sportsman and believes in getting the material for his wonderful fiction stories at first hand, spending part of each year in the great Canadian Northwest. His home is at Owosso, Michigan.

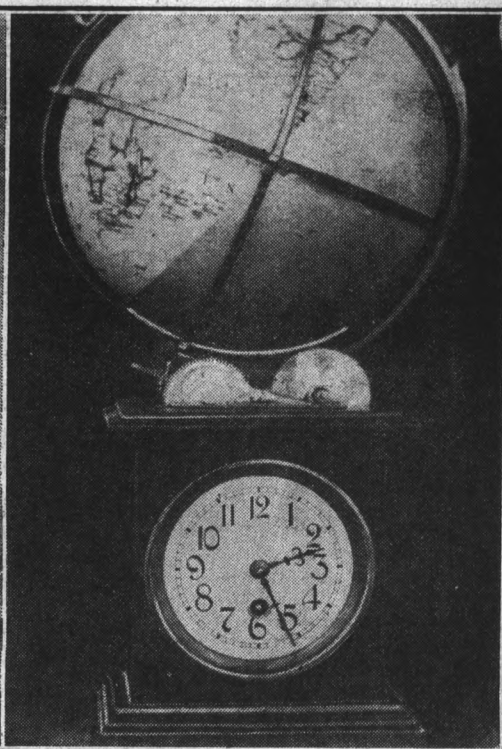
PICTURES FROM FAR AND NEAR



No necessity for attending congressional debates.—Representative Vincent M. Brennan, (Republican) of Michigan, demonstrates that in the future it will not be necessary for a congressman to attend sessions simply to listen to debates. He has had a radio installed in the House Office Building, Washington, D. C., and through the instrument he hears all that is going on.



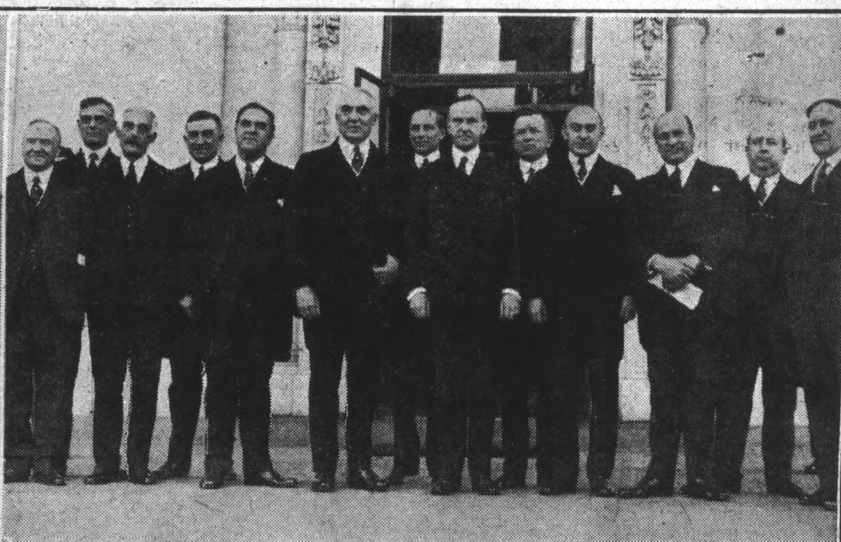
A sight that thrills thousands.—To the many foreigners coming to American shores, the Statue of Liberty is a symbol of freedom and enlightenment. It is a thrilling and heartening sight, this statue on Bedloe's Island, in the New York Bay, the gift to this country from French school children. This unusual picture was taken from an airplane encircling New York.



A unique clock.—Invented by Johann Vernedel of Atzgersdorf, near Vienna, Austria, which tells the time in every part of the globe at once. This clock and its globe-like attachment shows even more than the time of day. It indicates the exact time of sunrise, when it is noon, the time of sunset, the year, month and day, at all points of the earth.



Where coal is more precious than gold.—Some of the German Provincial towns are hard up for coal, and that commodity is becoming the rate of exchange, instead of German paper marks which have lost their value. Here are a group of kiddies in front of a movie theatre ready to pay their admission fee in "black diamonds." I suppose we would be considered multi-millionaires if we lived in Germany because we have a couple of tons of coal.



Putting the prohibit in prohibition.—Fifteen Governors met with President Harding at the White House while the chief executive expressed his ideas on prohibition. Left to right:—Gov. Ritchie, Maryland; McKelvie, Nebraska; Kilby, Alabama; Secretary of Treasury Mellon; Gov. Trinkle, Virginia; President Harding; Vice President Coolidge; Gov. Davis, Idaho; Cox, Massachusetts; Allen, Kansas; McCray, Indiana and Campbell, Arizona.



Youthful musician plays way to fame.—Max Goberman, aged 11, of Camden, N. J., created quite a furore in eastern musical circles recently when he won the scholarship to the Philadelphia Musical Academy, the only one to be granted. This young prodigy is the son of a motorman, and is in his junior year in high school. Max has won several honors during the past year and musical authorities predict a great future for him.



An interesting page in Father Time's diary.—Billie Dove, of movie fame, declared that 1922 was the happiest year of her life. A contract, a fine home and important roles in two notable productions, this is what this fair young lady had to be thankful for in 1922. She has been going through Father Time's diary and says that while she is pleased with past years she is going to make 1923 the best of all.



Still swings a wicked axe at 103.—"Uncle Joe" Daubeney, as he is known to all Taylor's Falls, Minn., is that state's oldest citizen and entering his 104th year he is still on the job as wood chopper. "Uncle" reads without glasses and often drives 50 miles in his flivver to Stillwater to see the latest movie. At the age of 100 he gave up smoking, but still chews tobacco.

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Gasoline Tax Becomes the Burning Question

MICHIGAN has just reason to be proud of her highway system.

One can now drive from one end of the state to the other over roads such as our fathers never dreamed of. It is now almost possible to go from Detroit, Grand Rapids, Flint, Saginaw, Lansing or any of the principal cities of the state to any other city, village or hamlet over highways which may be traveled with perfect safety and comfort at any season of the year. But it is costing a large sum of money to carry out this program and it is well for us to consider whether or not that cost is being properly apportioned to those who are most directly benefiting from it. At first the entire cost of constructing a highway was paid by the township in which it was built; then to encourage faster progress in road construction, laws were passed by which a certain amount of financial aid was given from State funds, provided the road was built according to certain specifications, but by far the greater portion of the cost was still borne by the taxpayers of the township in which the road was built; then the "County Road System" was adopted, by which certain roads were constructed by the county and the cost charged to the taxpayers of the entire county, including the cities, state aid being given on these roads also the same as on those entirely constructed by the townships; then the State Highway Department was organized and the amount of State aid was materially increased on all roads designated as part of the state trunk line system. These funds for payment of State aid have come out only from licensing motor vehicles but also largely from appropriations by the legislature, met by general taxation. Within the past few years in order to make more rapid progress so that we who are alive today could receive good roads benefits, funds for giving State aid have been provided by the issue of bonds to the extent of \$50,000,000 if necessary, the voters of the State having so voted by an overwhelming majority, the proceeds to be expended under the direction of the State Highway Department. These bonds have not as yet all been issued, but the interest on those already outstanding even now constitutes a substantial item in the State tax budget, and provisions must also be made in future budgets for a sinking fund with which to retire the bonds when due. Thus far the principal part of the cost of our highways has been borne by the general taxpayers of the State in the manner here described. The great increase in the amount demanded each year for highway purposes, together with the constantly increasing cost of practically every activity supported by the taxpayers of Michigan, and especially school and municipal expenses, constitute a burden on the property owner so large that it is now a serious question with thousands of taxpayers how the load can be borne.

There is no question but that the remarkable improvement in our highways is due almost entirely to and in fact demanded by the advent of the automobile. Until we began traveling in the fast moving motor car, comparatively few people other than residents of the agricultural districts made any extended use of the country roads. The farmers were able to haul their produce to market fairly well on existing highways and very little effort was made to secure better roads. Today our improved highways are crowded with motor vehicles carrying people through the country, giving them both pleasure and profit, and thousands of people are now becoming acquainted with distant parts of the state, and with other states as well, who until they began traveling in automobiles rarely, if ever, went outside the corporate limits of the cities in which they reside, except on a railroad train. It is true that almost every farm is considered increased in value when a good road connects it with the market-place, and the property in the city or village is likewise increased in worth, as improved highways make it easier for the farmer to transport his pro-

duct to market, yet can it be said that the benefit is as much more to the property owner, either in city or country, as is indicated in the proportionate cost of the highways he is at present called upon to bear? The injustice would not exist to the same extent if every owner of an automobile was the owner also of other taxable property for then all would be contributing in fairer proportion. The condition would be much better even if the automobile was taxable in the same manner as real estate and tangible personal property, or if the license fee now required equalled the amount of tax an automobile owner would be required to pay were his car subject to a general property tax; but there are thousands of owners of motor vehicles in the State of Michigan who are not owners of property taxable under the general tax law and whose contribution toward supporting the highways is limited to the amount paid for their automobile licenses, and they contribute nothing whatever, as they should, to the other activities of government that are supported by a general property tax. It seems to me that those who travel

be paid by the person, firm or corporation to whom gasoline is shipped within the State; in other words, the tax should be collected on bulk lots only from the wholesaler or distributor. This would necessitate but a very small force and could be made a part of the duty of some department already in existence. Settlements would have to be made with comparatively few dealers and the cost of collection should be lower than for almost any other tax now being collected. The wholesaler would simply add the amount of the tax to the price charged the retailer and the consumer would pay the slight added charge when purchasing at the filling station. With the unquestioned cooperation of the railroad companies a very close check could be made on the gasoline shipped into the State and evasion of the law be effectively prevented.

The only possible excuse for the levy of new taxes is that the overburdened property taxable under our present general property tax law may be relieved. The farm, the home, and even the factory are to-day actually taxed up to and in some cases beyond their ability to pay, and re-

will eventually be called upon to pay in exactly the same proportion as other property, i. e. in proportion to the actual value of taxable property within the district.

It is suggested by some that this highway budget should be met by a mill tax on all property in the State. This would provide no relief whatever, as the entire amount would be collected from property which is now bearing practically the entire burden and which already is paying much more than its fair share of the cost of the government. A one-mill tax sounds like a very small amount and so it is of itself, but with a one-mill tax for this purpose, another tax for another purpose and so on ad infinitum, the burden becomes heavier than the taxpayer can bear; and it is for the one and only one reason that that point has already been reached that we are now seeking new sources from which to obtain help.

A proposal has been made that two propositions for maintaining a highway budget be submitted to the voters of the State: One—the gasoline tax; the other—a one-mill tax on all taxable property of the State. This would be a perfectly fair proposal if every voter was a property owner, but it is hardly to be expected that thousands of automobile owners who are not owners of other taxable property would vote in favor of a tax upon themselves if there was a possibility of requiring someone else to stand the burden. This, then, is a question not to be so decided. The decision must be made by the Legislature, a body chosen by all citizens, and the rights and interest of all the people must be impartially considered to the end that the highway burden may be borne in the most equitable manner possible.—B. F. Burtless, Sec'y, Michigan Board of Tax Commission.

Not for Either Plan

I am neither an advocate of a tax upon gasoline or a mill tax upon property, for road maintenance, but I do not know that unless something is done soon you will find a greater problem ahead of you.

At present there are 50 per cent of the farms for sale and no chance to sell. Mr. Earle said that those who did not want to pay a mill tax to sell or give away. Now if Mr. Earle will please explain himself, some of we farmers will be very grateful, we are unable to do either, and with the tax rate where it is, about 75 per cent cannot keep this up very long. Locally the tax rate is 5.3 per cent plus special on roads, making some taxes \$5.00 per acre. This is as much as you have to pay to rent the best of land.

If Mr. Earle is in the market for good land at give away prices, send him up here and I can show him lots of it, even in Midland county.

I do not believe Mr. Earle can show us that he has made his money at farming and he talks just like most all men do that have money in the bank and can check it out for taxes. But how about the man who has some interest to pay also, or even the man just out of debt, he cannot borrow the money, here at least, even if his credit is good.

I noticed also that the Highway Department plans to finish spending that \$50,000,000 in the next two years. Why do we need six or seven trunk lines to the northern part of the state, through state land where no taxes are paid, shifting the expense back to the settled sections? Also why do we need a cement road through towns that have gravel roads already built? Some of these are only a year old and none of them worn out when they come in and tear up for pavement.

We have a very sensible highway department and there is no wonder that Mr. Earle is a pioneer good roads man, as he is president of a Road Builders Supply Company.

Mr. Earle also states that one sharp shod horse does more damage than a thousand autos. He may be right, but I fail to see any horses sharp shod or shod at all except on icy roads. I notice that most horses here travel at the side of these good roads if possible and sometimes go

BOARD OF TAX COMMISSIONERS FAVOR TAX

"THIS Board is on record as favoring a gasoline tax, believing that the general property of the State is, under our present system, required to pay more than its fair proportion of the cost of our highways."—B. F. Burtless, Secretary, Michigan Board of State Tax Commissioners.

by truck or car are deriving the greatest, most direct, and immediate benefit from the highways and that therefore they should bear a greater and more reasonable portion of the cost. I can see no fairer method of accomplishing this than to levy a tax on every gallon of gasoline sold within the State. The tax would naturally be added to the price of gasoline, but would be paid in such small amounts that one would hardly realize that it was being paid; no more attention would be paid to the matter than is now given when the price of gasoline is raised or lowered. No one purchases any less gasoline for use in a motor vehicle when the price advances a cent or two cents per gallon; now would the tax have the least effect upon the motor car industry. The sale of cars does not depend upon the price of fuel, but upon the condition of the times. When one considers the purchase of a car he gives no thought whatever as to whether gasoline will cost him twenty cents per gallon or twenty-five cents. This is proven by the fact that gasoline costs more than double to-day what it did when the automobile industry was started, yet the industry has grown faster than any other in the history of the world. It is to be presumed that the benefit and pleasure derived from good roads is in proportion to the use made of such roads and to the grade of the vehicle used in traveling the roads; a tax on gasoline therefore would be a levy almost in direct proportion to the benefit and pleasure received, for the greater the distance traveled or the larger and more powerful and comfortable the car driven the greater would be the consumption of gasoline. Likewise in the case of the truck and the bus, the consumption of gasoline being greater than that of the ordinary car, the contribution would be proportionately greater, as it should be. Then, too, the tourists from other states and countries, and no one derives more pleasure from our good roads than they, would also contribute toward the cost of our highways in proportion to the use they make of them and while the individual payment would not be large enough to be burdensome, the aggregate received would be large enough to be of very material assistance to Michigan taxpayers.

That the enactment of a law taxing gasoline would require the establishment of a large department and the employment of "practical proteges" is ridiculous and positively not true. The law should and undoubtedly will provide that the tax

lie must come from some source and that right soon. It is estimated that the whole tax burden is borne by less than one-half the actual wealth of the State and a tax of this character is one of the means students of the subject of taxation believe will help to remedy conditions with the least hardship to others. To make sure that the right result will be obtained care must be exercised in drafting the law to the end that the proceeds will be so disposed of that the owners of taxable property will actually benefit. The proceeds must be devoted entirely to the payment of charges which must otherwise come from the general property tax. If any attempt is made to divide the receipts and distribute them to the localities in which they are collected there is great danger that the money received will be considered as just so much more money available for spending and no relief would be obtained. A tax of more than two million dollars must be levied by the State each year for interest alone when the highway bonds authorized by the voters of the State have all been issued, and a sinking fund must also be provided with which to retire the bonds as they become due. At present there is no source from which these funds can be obtained except the general property tax. It is estimated that a tax of one cent per gallon on gasoline would yield approximately three million dollars; how could the proceeds of such a tax be more effectively expended than for the payment of interest on the highway bonds and for the creation of the required sinking fund? Under the present system every property owner in the State will have to pay his share of these obligations, that share being based upon the value of the taxable property he owns; then, if these funds can be provided through a gasoline tax, every owner of taxable property in the State will be directly benefitted and the funds will actually be raised from those who are deriving the most good, either in pleasure or profit, from the highways of the State.

It is objected to a gasoline tax that a large part of the automobile mileage is on city streets and that the cities to receive no outside help toward construction or maintenance of these streets. This objection would be well founded if the proceeds were to be based only for the maintenance of the country highways, but if applied on State highway bonds, as here recommended, the receipts will then be used to pay charges toward which city property

in Michigan! Read and Judge for Yourself

out of their way to avoid them, being hard on unshod animals.

All of the money that most of us get over a living goes to taxes and about 30 per cent last year did not have that much ahead. We pay the truckman the same rate as we do the railroads for freight, so who wins in this case?

As far as the city worker is concerned, I notice that he goes on vacations and uses the state roads as much as I do. When you pay \$5.00 per acre taxes, with markets where they are, you will have no time or money to chase over the country. You know the condition in the city today and you know that there are no young people left on the farms. They know where they can at least have time to enjoy themselves a little instead of slaving all hours to pay taxes. If we fail, we know there are others that will suffer with us, so go to it, you may be fixing your own funeral.

I believe the road user should pay for the road and I also drive an automobile.—E. N., Coleman, Mich.

Mr. Newton's Article Fine

The article by Mr. F. S. Newton of Saginaw, as reported in The Business Farmer of January 6th, I have read with deep interest and consider the article entirely logical, proving Mr. Newton to be a deep thinker.

Everyone who is conversant with present financial conditions, is aware that the Michigan Farmer is already taxed to near the "breaking point" and to place an additional tax upon him, as proposed by Mr. Horatio Earle, would be no less than an unmitigated injustice.

As stated by Mr. Newton, we as a people, have "gone wild" on the subject of "Good Roads" and a halt should be called until better financial conditions prevail. The proposition to make the highway from Detroit to Grand Rapids 100 feet in width illustrates the absurd condition of some men's "think tank". "We Farmers" enjoy riding on good roads but we do not want to "break our backs" with hard work to provide for their making and maintenance.

It would seem to be most proper for Granges and Farmers' Clubs to bombard the Legislature with resolutions, something like the following: Resolved by (name of Grange or Club) that we do hereby ask most earnestly of our members in the Legislature, that the expenses of the State government be kept at the very lowest amount consistent with the proper caring for the financial needs of the State and this we ask in view of the heavy burden of taxation which real estate of the Farmer is compelled to be at under the present unequal and unjust levying of taxes, and we feel assured that it will be far the best interests of all to recognize that upon the welfare of the Farmer depends the welfare of all classes of citizens, it being absolutely and everlastingly true—"The Farmer: He garners, from the soil, the primal wealth of nations."—J. T. Daniells.

Township Treasurer for Tax

As you have given us the opportunity to express our opinions on this state-wide issue "Gasoline Tax" I'll add a few facts as I see them here in the northern part of the state. I agree with F. S. Newton.

The "One Mill" tax on the farmers of this state would be the last nail in his coffin for today he is little better than a slave to taxation. Who was it that said "Let every man and woman be free and independent?" Are the farmers independent? No, a thousand times no. But thank God they are free—and if anyone well read the reports of the Farm Bureaus, Granges, and Farmers' Clubs, I believe they will wake up to the fact that they are very much alive. The trouble is, we farmers have been too easy and put much trust in our state officials.

Mr. Earle says if we don't want to pay our tax, let us sell, "and get out." This is an insult to the average farmer, the real honest farmer, not the dude. If Mr. Earle will send buyers up in this part he can buy nine out of ten farms, for a lot less than our much talked of State men valued them at. Good farms

too, good homes, well tilled fields and well stocked. Why? Because he cannot make a living for himself and family and pay his taxes. Mr. Earle spoke of owning several farms, yes, and when he has only a short distance to haul to a good market, "by truck" thus the holler on gas tax. If his farms were up here where he had to depend on R. R. freight rates, he would sing a different song.

I am in a position to know, being treasurer of this township, where up to date only eight farmers have paid their taxes. Why? Because they cannot sell their produce to get the money. I know of several good industrious farmers that have butchered and hung up most of their cattle and hogs and left wife and children to care for the rest and gone to camp to earn tax money. One man shipped two crates of fifty chickens each to the city, expecting a good return but the market had taken a slump and after paying the railroad he had just four dollars and sixty-three cents for his poultry, about one cent per pound. Now if

I would say reduce the license tax to two or three dollars regardless of size of car and collect the rest through a gas tax.

Mr. Earle proposes to put an additional tax on real estate when there are thousands of real estate owners who never use the roads for anything more than to walk on.

It seems to worry Mr. Earle that they are going to tax the city of Detroit for helping to keep up the roads in other parts of the state. I know I have seen a lot of cars from Detroit up this way last summer and they don't stay on the state or county roads either. They go over our township roads which we farmers have to maintain without state or county aid. The way I look at it the Farmers ought to stand for it to the man.—N. T. Powell, Emmett County, Michigan.

"Hurrah, for Gas Tax!"

Why I think a gasoline tax a just tax is because it would make them that ride most pay most. Was the trunk line built for the farmers? No. It was built for the pleasure

THAT PROPOSED GASOLINE TAX

IN theory the tax proposal has irreparable weakness. It would tax every user of gasoline for the maintenance of good roads when it is perfectly clear that many users, tractor operators, owners of gas engines on farms, and a vast number of vessels, for example, are not concerned with roads at all insofar as these activities are concerned. * * * Suggests a very grave objection to the gas tariff proposition. That is the necessity it would involve immediately of providing a new and highly expensive state agency for its collection.

Instead of the gas tax Col. Waldon suggests an increase in license fees if the automobilist must bear the road cost burden alone. That increase would not involve the employment of another clerk by the state, would add not another penny to the ordinary cost of running the Secretary of State's office.

The gas tax idea is impolitic and unfair in theory; it would prove improvident and wrong in practice. If the automobilist is going to pay a new tax there is now an ample sufficiency of machinery in the state of Michigan for its collection.—Detroit News Editorial.

he had been in Mr. Earle's place he would have phoned out, "take the truck and bring in those 100 good fat chickens, price is high" and presto, it's done! But this is not the life of the common farmer.

Again I take exception to Mr. Earle's remark that "One sharp shod horse did more damage to the good roads on one trip over than a thousand autos." The auto has it all over the poor horse—when it comes to cutting up roads. Now that Mr. Slocum has given us the chance to express our opinion I hope the real farmers will not be backward. Remember the Business Farmer stands for a square deal. Once and for all a good income tax and put the gas tax on to build the rich mans roads.—One of the Northern Michigan taxpayers, Cheboygan County, Mich.

Gas Tax Will Get Outsiders

I have just finished reading an article in the M. B. F. written by Horatio S. Earle on the proposed gasoline tax in Michigan, in fact I have read several articles written by Mr. Earle in opposition to this tax. His argument is applied to Detroit might be good, but as applied to the whole state, I consider it mighty thin.

I live in the midst of a resort region and during the summer months cars pass through here from nearly every state in the union. Some stay several months and some are campers and none of them, except those that own property here, pay one cent highway tax. And this tourist traffic is something immense and growing all the time. They wear out our roads more while they are here than our home people do in the whole year and a tax on gasoline would make those who wear out the roads keep them up whether they are from Michigan or California.

Mr. Earle's argument about the aeroplanes, motor boat and washing machine is a joke and the farm tractors use mostly kerosene.

Another injustice under our present taxing system is that the upper peninsula and northern part of the lower peninsula can use cars about two-thirds of the year and yet pay at the same rate as the whole state.

cars and automobile industry and the millionaire, and they bonded our county for millions of dollars with 20-year bonds for the farmers to pay.

Mr. Earle says who shall pay the tax, the truck man that hauls the farmers produce? Now I think Mr. Earle knows the farmers would pay at least the gasoline tax.

Mr. Earle speaks of the poor washer-woman. Now if a man took a dirty shirt to get washed, when he got the clean one who would pay the tax?

He says the cities maintain their streets but 75 per cent of the cars that run over our trunk lines are city trucks. Mr. Earle speaks of marching the Israelites out of the swamps now I don't know whether he did or not but what has that got to do with the gasoline tax.

Mr. Earle speaks of exempting Mr. Ford from taxation. Would a gasoline tax exempt Mr. Ford? He says Mr. Ford doesn't pay a tenth part of the tax he should pay. Now Mr. Earle lives in that neck of the woods why doesn't he see that Mr. Ford pays his taxes or is he afraid that a gasoline tax would hurt the sale of Ford cars.

My taxes have doubled in four years at the same valuation. Now Mr. Earle says he pays 50 times the taxes of an ordinary farmer and pays them cheerfully and if the farmers don't want to pay their taxes let them give their farms away. Now how did Mr. Earle get his vast wealth, farming or out of the good roads system? Now Mr. Earle wants the farmers to vote a mill tax. I think what Mr. Earle wants we don't and what he doesn't we do. So hurrah for a gasoline tax.—Arthur Sterim, Osceola County, Michigan.

Taxes on Real Estate High Enough

I note in the December 9th issue, Mr. Horatio S. Earle, on the highway tax problem, and think such an article worthy of notice. His claim of being a farmer and farm owner is a broad claim often used by men that are not dirt farmers, that depend on farming for their income and living.

I think a reasonable tax on property is all right but most dirt farm-

ers and home owners know by this time that they are getting hit hard enough with taxes.

We have no state tax based on the value of motor cars. An old car worth \$100 is taxed the same as a new car worth \$1,000. A farmer in the north part of the state that makes a few trips to town with car in summer is taxed the same as a car owner in south part that drives car nearly every day in the year.

The statement that motorists are paying 5 per cent tax doesn't seem to balance right as far as state taxes go. Reports from states that have a gasoline tax show that it is one of the easiest taxes they have to collect and motorists do not consider it unreasonable as it is used to improve roads which benefit them and saves them money in running their cars.

I think the more farm and home owners we have the better and it will prove a poor policy to tax the people off from their farms. When the state builds and maintains an improved highway system at great expense it must be met by a tax and I fail to see any injustice in placing part of the tax on the traffic that uses the roads, in proportion to use.

Some states have a 2 cent per gallon tax on gasoline for highway purposes and it works well, why won't it work well here?—Earnest S. Allen, Osceola County, Michigan.

Wants Both Gas and Income Taxes

I was very much pleased to read the article in your paper of December 9th, concerning the gasoline tax by Mr. Earle. He sure brought out some good suggestions, but I hardly agree on the mill tax at present for the highway department, and will try and give my reasons.

I believe the way conditions are in Michigan at present, we should have a gasoline tax and an income tax and every good honest citizen who believes in doing his share and have others do the same will get out and vote for both. They tell us in Michigan 79 per cent of all taxes are on real estate. Real estate represents 35 per cent of the wealth of Michigan. That leaves 65 per cent of the wealth of the state to pay 21 per cent of taxes. Take the man with most of his money in non-taxable property who is probably raising a family has a machine, and is wearing out the roads that real estate pays about eighty-five per cent of the cost when built, or the man who makes his living trucking, some do not own a home, and have their money in trucks and non-taxable property. Where are they to get their just share, will not a gasoline tax help, also an income tax?—Henry D. Phillip.

Gas Engine Owner Speaks

Would a tax on gas be a just tax? How about the man who has no car, but owns a gas engine? Must he pay on power, not using the highway, or such power traveling on water? A tax on gas would make openings for some work dodging individuals to collect said tax. The people are grating under the tax burdens now. That does not indicate they want more. Unload, must be the slogan of every fair minded citizen. Where will we start.—C. H. A., Iosco County, Mich.

Tax-Exempt Securities

How different we see things. I am rather surprised at Brother Earle's article in which he proposes to add a one mill tax on all real estate for highway purposes. There seems to be about all the tax on real estate already that it can stand, more than it ought to stand. There are thousands of small real estate owners who are old, with small income not sufficient to support them, and when they apply to the mill or factory work they are met with this "you are too old to do our work." There are thousands of men that own machines that do not own real estate who would go free under Brother Earle's plan. I think a better plan would be for a vote at the spring election to empower the legislature to amend the constitution to tax tax-exempt securities.—Reader, White Pigeon, Michigan.

Historical Background of Michigan Agriculture

Second Installment of Historical Outline of Rural Life in Michigan, by Prof. L. A. Chase

THE primal need of the settler is for transportation. Michigan's rivers were mostly shallow and crooked, obstructed with drift-wood and sometimes completely blocked for long distances by it, and, after deforestation had advanced, sandbars likewise impeded navigation and there were great fluctuations in the depth of the water from season to season. In winter they were iced over and mill dams were at frequent intervals thrown athwart their channels. Makeshift roads were early constructed—some of the most important ones by the United States government, before Michigan became a state, and that for military reasons. Territorial and, later, state roads were laid out by the territorial and state governments in accordance with acts of the legislature, while each township was expected to attend to the building of such portion of these roads as lay within its limits. Working out the road tax was for many years a familiar feature of rural economy in Michigan, with results that were unfavorable to good roads. But for many years the most that Michigan farmers could contribute for this object was labor. The people—pioneers in a wilderness—were poor and distances were great. Often the "road" lacked grading and a metallic surface, although where need was, in crossing a marsh or swamp, the log corduroy gave a painful passage to the wayfarer. The town-meeting, introduced from New York and New England even before statehood was attained, gave most of its attention, it may be presumed, to road work, as it still does in those rural sections where it is still held. It was only with the coming of the automobile that effective county and state highways systems have superseded the township-district system of the earlier period.

Need of Transportation

This need for transportation explains the fantastic effects at railway construction and internal improvements which featured the history of Michigan as soon as statehood was secured, and the people became masters of their own governmental affairs. The first railroad—the Erie and Kalamazoo—was opened from Toledo, Ohio, to Adrian, Michigan in 1836, although charters and projects had been provided in plenty during several years previous. This was a private undertaking as was that from Detroit to Pontiac, almost as early; but private effort was too conservative. The young state required vigorous action and got it through its own efforts. A great system of internal improvements was laid out by the governor and legislature in 1837, which with the hard times that came on about that time, well-nigh bankrupted the state and brought, in 1850, a constitutional prohibition of such state enterprises in the future. Three state-constructed railroads were built well into the interior of the state—from Detroit to Kalamazoo (designed to reach Lake Michigan at the mouth of the St. Joseph River) and the other from Monroe to Hillsdale (designed to reach Lake Michigan at New Buffalo). All these railways were built with the wooden rails with a metallic strap to cover the running surface, and some of them used horse-drawn vehicles at first. Indeed it is said to have been designed that farm-wagons should be provided with flanged wheels so that anyone could haul his wagon on the line as if on a country highway—safely out of the mud and sloughs of the public roads. Over these early lines the farmers shipped their grain, flour and other marketable produce to the lake ports and market towns, and received manufactured and non-domestic materials in return. Railway capacity was small. Trains on the state-owned roads ran only in the day time and sometimes it became necessary to call in wagon transport to relieve the congestion on the railways. The state went out of railroading in 1846, and it was

left to private capital and effort to cover the state with its present system of steam and electric transportation. Chicago was reached in 1852 and the two peninsulas were joined by railroad in 1881. In the southern counties it appears to have been the advancing agricultural frontier that promoted the extension of the railroad system, while farther to the northward, where good agricultural lands were less readily available, lumbering gave the incentive still further north, in the Upper Peninsula, mining, and later lumbering, led to railroad construction. But even in the north, agriculture where it was replaced by forest industries, directly depends upon the railroad. Electric inter-urban transportation is scarcely more than a generation in developing from its first small beginnings between Ann Arbor and Ypsilanti in 1890. But it, too, has come to have a very great importance to rural life in Michigan. The canal system which the state government contemplated in 1837, soon was dropped after some slight efforts were made close to Lake St. Clair and in the Saginaw valley, although the great lock and canal system at Sault Ste. Marie, first opened in 1855, has come to have a tonnage some three times that of the combined Panama and Suez canal traffic. But this has little direct connection with Michigan agriculture.

Education and Religion

The rural pioneers of Michigan were not indifferent to education or to religion. Territorial legislation had taken in account of public schools, but little seems to have been accomplished before statehood was attained. The state constitution of 1835 gave the state educational leadership by creating the office of superintendent of public instruction and devoted the proceeds from the sales of such lands as might be received from the United States for this purpose to the use of such schools. This primary school interest fund later was increased by

the addition of taxes on railroads and certain other transportation companies as well as the tax on inheritances, and has been an important aid especially in some rural sections of the state where the proportion of school children to taxable valuation is high. Yet, the first schools were not free. The teachers kept account of the attendance from each family and at intervals a rate-bill was presented for payment of tuition. The constitution of 1850 directed that the legislature provide free schooling, but it was nearly a score of years before this was done. The teachers were poorly trained and poorly paid. The course of study was limited mainly to reading, writing, and arithmetic (there was for many years no attention given to agriculture). Schoolhouses were made of the same crude construction that characterized the homes of the people. Text-books were few and of all sorts and conditions. Special school equipment was largely lacking. Yet the schoolhouse filled an important place in the rural life of pioneer Michigan. It was a place for public meetings—religious, political, social. It afforded all the schooling that many eminent men and women of Michigan received.

The circuit rider moved about from place to place carrying the Gospel to remote hamlet and lonely fireside. His equipment was in his saddle-bags. His pay was trifling, his zeal was great. Like the physician, he made long and hard journeys. Occasionally there were settlements of persons having a common religious bond whose members were chiefly engaged in agriculture, such as the Mennonites already referred to, the Quakers, the United Brethren, the Dunkards, the Mormons of Beaver Island, and latterly the Israelite House of David. The most striking example of re-colonization of co-religionists on a large scale is that of the Dutch settlement of Ottawa County, just before the middle of the last century.

As the mainland of Michigan extends through some six degrees of

latitude there was found to be considerable divergence in the farm crops that could be grown. Among the early farmers wheat was a favored grain crop and the farmers chief dependence for a cash income. It has from the beginning been a leading crop of the southern counties. It has borne many names and varied greatly in quality. For years after the Civil War the "Clawson" wheat said to have been introduced in New York State stood in high repute. Of late interest has been shown in the new type, called "Red Rock" bred from a single kernel selected in 1908 by the plant breeder at the Michigan Agricultural College. Under pioneer conditions wheat was sown broadcast from the hand and covered with the spike-toothed drag. Its yield would run from thirty to forty bushels per acre but in time this yield was not maintained and farmers came to plant wheat rather from force of habit or for seeding of the hay-crop than for any good business reason on its own account. From the first winter wheat has been chiefly grown in Michigan, but in the northern sections of the state spring wheat predominates, although an early planting of winter wheat is apt to turn out well.

Crops Raised

Corn—already grown in the state by the Indians when the whites arrived, was planted sometimes on the untilled ground among the stumps. The surrounding forest, by interfering with air drainage, increased the liability to frost on the corn-field, until clearing operations reduced this danger. With corn as with wheat there was the same lack of standard varieties until recent years through the efforts of crop improvement associations and the Agricultural College standardization has been brought about. This applies also to other grains. In the pioneer era grain-growing suffered somewhat, too, from the depredations of wild animals. The succulent shoots of the growing grain suited the taste of the deer, and grain in the shock attracted the approving attention of raccoons, squirrels and wild turkeys. On the other hand, many of our destructive plant diseases did not make their appearance for some years. Wheat flour was produced at the water-driven mill reached, it might be, after many days of arduous traveling. The Indians knew how to reduce corn by breaking it in a hollowed end of a log or stump, while the whites improved on these methods by using a hand-mill or even a large coffee-mill.

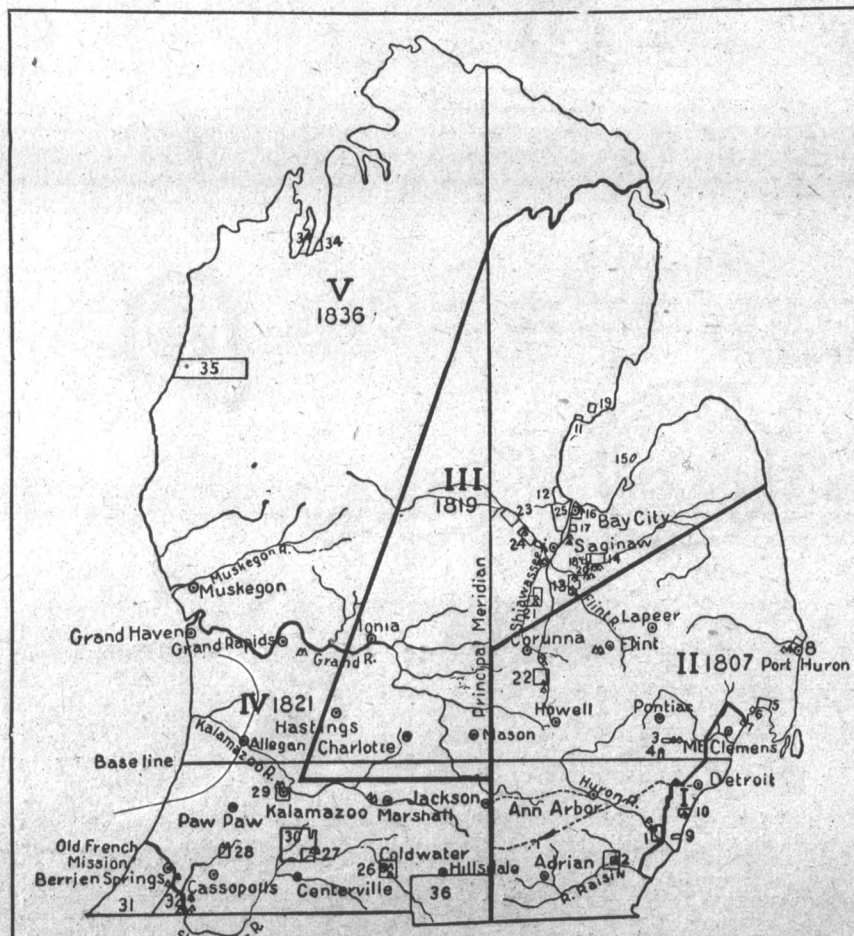
In the pioneer period the prairies and marshes produced wild hay, and even yet there are times and places in which such wild grass is not scorned. For many years clover and timothy was almost entirely grown as a hay crop, but during the past score of years alfalfa and more recently, sweet clover and sunflowers have been winning favor for forage. The southern counties lead in the hay crop, but the eastern section of the Upper Peninsula is distinctively a hay-producing and hay-exporting region.

It was early discovered that the light soils of the northern counties were suited to the growing of potatoes and this region remains the leading potato section of Michigan and one of the most important potato sections of the country. As with the grains, varieties have become standardized and adapted to local conditions.

Sugar Beet District

The area of sugar beet culture is not far south of the potato belt but on soils that are stronger in clay in their composition. The state legislature in 1881 had tried to stimulate the home production of sugar through a bounty, but efforts to obtain crystalline sugar from the syrup of sorghum, or Chinese sugar-cane were not successful, although considerable sorghum molasses was being produced at that time in Mich-

(Continued on page 23.)



Indian land cessions, 1795-1837. The first strip of land the United States secured from the Indians was a narrow strip extending from a few miles north of Mount Clemens south to the Raisin river in Monroe county. Through a treaty of 1807 the boundary line was extended from the Michigan-Ohio line through Jackson, Mason, Corunna, along the Saginaw valley to the shore of Lake Huron. The treaty of 1819 ceded territory around Charlotte, Ionia, the Saginaw valley and north to Presque Isle county. The treaty of 1821 ceded the land south of Grand river and through the treaty of 1836 the United States secured possession of all of the lower peninsula and the eastern part of the upper peninsula. In 1843 the Indians ceded their last claim upon Michigan, the western portion of the upper peninsula.

Chicago Daily Tribune

THE WORLD'S GREATEST NEWSPAPER

Announces

A BIG REDUCTION IN SUBSCRIPTION RATES

For the Benefit of the Farmer

THE CHICAGO TRIBUNE, realizing that its phenomenal success is due in a large measure to the fact that for seventy-five years it has numbered among its readers a large proportion of the residents of farms and small cities, announces for their benefit a big reduction in subscription rates effective January 15th, 1923.

*The reduction ranges from 1/3 to 1/2
below former rates*

In 1917, as a war measure, Congress passed a bill providing for four annual raises in Postal Rates for newspaper subscriptions. As The Tribune had, for many years before, sold its paper to out-of-town readers at less than cost, it felt compelled to add a portion of these postage increases to its subscription rates.

For the past three years The Chicago Tribune has been leading the fight to obtain a reduction in second-class postage rates so that it could reduce to pre-war prices its subscription rates to residents of farms and small cities.

Although every one of the other ten taxes established by the war revenue act of 1917 has been reduced, Congress has not seen fit as yet to reduce the tax on second-class postage.

At the present Postal Rates it costs The Tribune from \$3.20 to \$6.79 a year for Postage alone to send the paper to each subscriber in the States of Illinois, Indiana, Iowa, Michigan and Wisconsin. In many instances this is more than The Tribune's entire subscription price—without considering the cost of the product.

Many of our farmer friends have stated that it required from 10 to 12 bushels of corn to pay for a year's subscription to The Chicago Daily Tribune. The Tribune is anxious to remedy that fact.

**TO TAKE ADVANTAGE OF THIS
OFFER TEAR OUT COUPON and**

MAIL AT ONCE!



If you prefer to do so, you may turn subscription coupon below over to your postmaster, publisher, or newsdealer who will forward it to us.

Therefore, without waiting further for Congress to act, The Tribune announces a reduction in subscription rates ranging from 1/3 to 1/2. This cut in rates will cost The Tribune approximately \$200,000.00 each year, but The Tribune will pay the bill in the interest of its many country readers.

New subscriptions to The Chicago Daily Tribune, starting on and after January 15th, 1923, will be accepted at the following rates:

THE CHICAGO DAILY TRIBUNE

[By Mail, Six Days a Week]

These Rates Apply Only to Subscriptions in States of Illinois, Indiana, Iowa, Michigan and Wisconsin. [Cities, Towns and Rural Routes included.]

Period	Old Rate	New Rate
1 Month.....	\$1.00.....	\$.50
3 Months.....	2.50.....	1.25
6 Months.....	3.75.....	2.50
12 Months.....	7.50.....	5.00

The Chicago Daily Tribune today enjoys the largest circulation in its history and the largest morning circulation in America—averaging over 530,000 copies daily. It will readily be seen, therefore, that the reduction is not made primarily to secure more circulation.

If you wish to receive The Chicago Daily Tribune—with its many wonderful features—regularly, take advantage of these new, low rates now. Mail subscription coupon below. Note that \$2.50 will now bring you The Chicago Daily Tribune by mail for six months, or \$5.00 for a whole year.

For the benefit of its country readers The Tribune will continue its fight for fairer postage rates.

SUBSCRIPTION COUPON

The Tribune Company,
Dept. 17 Chicago, Illinois,

Date.....

I want to take advantage of your reduced subscription rates. Enclosed find \$..... for which send The Chicago Daily Tribune [by Mail, Six Days a Week] as follows:

- ☐ 1 MONTH [50c] ☐ 6 MONTHS [\$2.50]
☐ 3 MONTHS [\$1.25] ☐ 12 MONTHS [\$5.00]

Check the Subscription wanted

Name.....

Street Address or R.F.D.

Post Office.....

State.....

"Every Day in Every Way We Are Getting Better and Better."

FINANCIAL STATEMENT

GLEANER CO-OPERATIVE MUTUAL FIRE INSURANCE CO.,

The following financial statement is a copy of the report submitted to Hon. L. T. Hands, Commissioner of Insurance, Lansing, for the year ending December 31st, 1922. In submitting reports to our members we conform exactly to the requirements of the state, therefore it may be depended upon as absolutely correct.

The Company is in splendid condition, the best since its organization six years ago. In reading this report we want it understood that while the indebtedness of the company is \$28,172.40, that the last assessment was called September 1st, 1922, and this twenty-eight thousand dollars has been used to pay the losses and expenses for four months since assessment was called—September, October, November, and December. Our assessment year ends September 1st, and this report is made for the calendar year 1922. Bear in mind, we have operated the company, paying all losses for a third of a year and it has cost us \$28,172.40. We have about \$28,000,000 at risk. If we assessed \$1 per thousand it would raise \$28,000, and would pay up everything. If we should run along in the same ratio for the following eight months of our year we would assess \$3 per \$1,000. It would be very unwise to prophesy the future. We can only tell you what it has cost us to run a third of our next year.

This statement is combined, both Rodded and Unrodded classes made to meet the requirements of the State Insurance Department. We will say, however, that both classes are in equally good condition when separated. We want to call your attention to the fact that this company own no automobiles, the office furniture, safes, fireproof files, typewriters, adding machines, dictaphones, printed matter, etc., which has been paid for and in the office costing a lot of money is not carried as an asset. We have considerable money due us that we are going to get on assessments back of 1922, but as the Insurance Department does not allow us to carry these as an asset they are not included in this report.

We ask that you take special note of the expense of adjusting losses and inspecting risks on the twenty-eight million dollar company. There were 174 losses on both classes, scattered about the state and the expense of adjusting these losses averaged \$16.90 each, which covered railroad fare, automobile hire, hotel expenses and salary paid the adjuster.

The exact amount of insurance at risk January 1st, 1923, was \$27,697,422.75, or a net gain after all cancellation and decreases, of \$4,244,318.50 and a net gain in membership of 911, making a total membership in both classes of 8,011. The two classes are two-thirds Rodded and one-third Unrodded.

INCOME		
1. Total assets at the close of business.....		\$ 4,935.00
2. Assessments levied during the year.....	\$ 79,054.66	
3. Premiums paid by new members.....	5,211.16	
4. Policy Fees.....	2,206.90	
5. Interest Received.....	2,246.86	
6. Borrowed Money Received.....	57,500.00	
7. Transfer Fees.....	148.33	
8. Assessments of Year 1921, paid 1922.....	8,724.47	
9. Assessments, prior to 1921.....	127.37	
12. Cancelled Insurance.....	2,646.89	
13. Excess.....	205.57	
14. Total Income for Above Period.....	\$158,074.21	\$158,074.21
15. TOTAL.....		\$163,009.21

DISBURSEMENTS		
16. Amount of Losses Paid.....	\$ 78,381.67	
17. Adjusting and Settlement of Losses.....	3,285.06	
18. Officers Salaries and Fees.....	4,450.22	
19. Directors Fees and Expenses.....	353.05	
20. Revenue Stamps.....	57.20	
21. Clerk Hire.....	6,106.13	
22. Advertising, Printing and Stationery.....	1,550.95	
23. Postage and Stamped Envelopes.....	793.42	
24. Commissions to Agents.....	3,474.96	
25. Return to Policy Holders.....	11.60	
26. Borrowed Money Repaid.....	45,500.00	
Interest on Same.....	4,119.06	
27. Attorney Fees and other Legal Expenses.....	124.14	
28. Miscellaneous Account.....	100.75	
29. Telegrams and Telephone.....	215.12	
30. Rent.....	600.00	
32. Office Supplies.....	274.67	
33. Notes Receivable.....	1,499.82	
34. Inspecting.....	412.58	
35. Cash Deposited in Reserve Fund.....	6,914.39	
36. Collection Account.....	180.91	
37. Bad Debt Charged Off.....	37.77	
38. BALANCE.....	\$158,523.57	\$158,523.57

LIABILITIES		
Borrowed Money.....	\$ 50,000.00	
Losses Unsettled and Not Adjusted (2).....	2,250.00	
TOTAL.....	\$ 52,250.00	\$ 52,250.00

ASSETS		
Cash on Hand.....	\$ 4,465.64	
Due on 1922 Assessments.....	12,836.67	
Due on Cancelled Insurance.....	440.90	
Money Deposited in Reserve Fund.....	6,914.39	
BALANCE.....		\$ 24,657.60
		\$ 28,172.40

We realize that some who read the above statement may not be able to fully understand same, and our aim has always been to keep our membership well informed, and thus we offer the following explanations:

No. 1—The money we had on hand when we started the year 1922. No. 2—Amount of assessments paid by our members. 3rd and 4th—Money paid by new members to join our company. Some of this was paid to agents for writing the applications. The amount so paid is item No. 24. 5th—This is the amount of interest we received from members who did not pay their assessments soon enough to avoid paying interest, most of whom took the full three months to pay same. We gave them extra time to pay if they paid a small interest. Notice item No. 26. We paid \$4,119.06 interest on borrowed money, and our members paid in \$2,246.86, therefore we were really out only \$1,872.20 for interest the entire year for money advanced by the bank to pay the losses and expenses for the members. No. 7—This is self-explanatory. No. 8—Money received for transferring policies. Nos. 8 and 9—Self explanatory. No. 12—Assessments paid when insurance was cancelled. No. 13—Money sent in by agents more than required which was returned in item No. 24. No. 14—All the money received during the year.

The disbursement explanation is quite clear. Nos. 16, 17 and 18 are self explanatory. No. 19—Paid directors for attending meetings, travel, expenses and per diem. Nos. 20, 21, 22 and 23 are self explanatory. No. 24—This is the amount paid agents for writing applications. The money they sent in is covered by Nos. 3 and 4, and was returned to them. No. 25—Money sent in above the amount required and returned. Nos. 26 and 7 are self explanatory. See our explanation to No. 5 above. No. 28—Typewriter and other office furniture and fixtures. Nos. 29, 30 and 32 are self explanatory. No. 33—Notes taken in payment and credited on assessment book, charged as a disbursement until notes are paid.

No. 35 is the amount of money received from new members for joining the company, which in most mutual companies goes to the officers as commissions. This is the start in our reserve fund that we are building without assessing our members therefor. It is deposited in the National Bank of Commerce, Detroit, as a savings account and is drawing interest. It will be added to every month.

No. 36—Paid for collecting accounts. No. 37—Bad debts charged off as uncollectable. The liabilities and assets are self explanatory.

Notice the item in liabilities: "Losses unsettled and not adjusted." There were but two losses unpaid at the close of the year, one occurring December 26th, 1922, and the other is a loss where there is a grave doubt as to whether the company is responsible for anything whatever. Isn't this a wonderfully clean slate for a big company?

Never was the Gleaner's Co-Operative Mutual Fire Insurance Company in better condition, financially or otherwise. It is being operated safely and conservatively. Insurance risks have been kept within the safety point and those who joined to sell their property to the company through the incendiarism route have been smoked out, and the suspicious are under surveillance.

We gladly open our gates to every good farm owner, whether he be a member of the Gleaner organization or not. We have issued a booklet covering every detail of the advantages and operation of the company which we will gladly send to anyone who desires same. We can only say to you that if you place your insurance with us we shall do our utmost to give you the best insurance to be had at the least possible cost, and that the management will be safe, careful and conservative.

L. F. BOSWORTH, President.

JAMES SLOCUM, Secretary.

Home Office: National Gleaner Temple, Detroit.

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.)

A PATHETIC REQUEST

DURING years of reading your paper, I have seen many troubles cleared up. We would like to know if you can help us by printing the following:

Our daughter, Bernice De Hart disappeared from Harbor Springs, Michigan, Nov. 24th. Her description: age 23, weight 110 pounds, height 5 ft. 3 inches, color of hair, medium brown, color of eyes, blue. Slight scar on right cheek. When last seen she was wearing a small black velvet hat, wine colored coat, with large black collar and black kid oxfords. She is a pianist of excellent ability.

We will give to anyone who can give us information concerning her whereabouts \$300.00 in cash.—F. G. De Hart, Post Master, Vickeryville, Michigan.

DEPENDS ON WORDING OF CONTRACT

If A sells B a parcel of land on contract and after two or three years B is unable to meet payments when due, has A the right to step in and take the land back at once? Or has B a right to pay up later and redeem the land the same as on a mortgage? R. P. R., Kingsley, Michigan.

—The time when A may regain possession of the land sold on contract to B depends upon the wording of the contract itself. A notice of forfeiture probably must be served of from seven days to three months depending upon the wording of the contract. Under the statute if B retains possession until A commences an action against him notwithstanding B has not paid he may require the court to find the amount then due on the contract. B would then have five days to pay it or he may be put off the premises.—Legal Editor.

BRIEF COURSE FOR ELECTRICIAN OR PLUMBER

Can you give me any information, as to the learning to be either an electrician or plumber? Is there any other way other than being an apprentice or in the case of an electrician, taking a university course. Are there not some reliable trade schools that one might attend? One similar to the Detroit Automobile School, for learning the trades pertaining to automobiles? Are there any you could recommend?—W. M., Mt. Pleasant, Mich.

—The best place I know of is The Ohio Mechanics Institute, Cincinnati, Ohio. However, the Detroit University or The Arthur Hill Trade School, Saginaw, or the Milwaukee School of Electrical Engineering might serve your purpose.—A. R. Sawyer, Professor of Electrical Engineering, M. A. C.

HOUSEWORK AND GENERAL HOUSEWORK

Will you please tell me if there is any difference between the terms "housework," and "general housework"?—A. R., Marilla, Mich.

—The distinction is simply one of custom. The term "general housework" is supposed to mean all types which would include the laundry, while "house work" would include only the care of the house and includes neither the laundry nor the culinary work.—Edna V. Smith, Asst. State Home Demonstration Leader.

WHO IS ENTITLED TO PENSION?

What widow and children are entitled to a pension?—Mrs. M. E. W., Honor, Mich.

—The mother of any dependent or neglected child under the age of seventeen years of age who is unmarried or divorced, or is a widow, or has been deserted by her husband, or if her husband has been declared insane or is feeble-minded, epileptic, paralytic, or blind, and is confined in a state hospital or other state institution, or is the wife of an inmate of some state penal institution serving sentence therein

for crime, or if an inmate of a hospital for the treatment of insane who is confined therein for the purpose of being treated for insanity or other diseased mental condition and such mother is poor and unable to properly care and provide for said child, but is otherwise a proper guardian, the court may enter an order providing for the payment of not to exceed ten dollars per week and not less than two dollars per week in case said mother has but one child, with an additional sum of two dollars per week for each such additional child.—Charles J. Deland, Secretary of State.

OWE AGENT NOTHING

A year ago last spring an agent came to my place to sell me a cultivator. I wanted an Oliver but they did not have any. They had the Rodgerick Lean. I told them that I would think it over and let them know. I told them not to bring one out unless they heard from me. Two or three days later this man sent out a cultivator and I not being at home he unloaded it and went away. I gave it a fair trial and did not like it so when he came to draw up the papers I would not sign as I did not want it. We later bought an Oliver. I notified the firm I did not want the cultivator, to come and get it. He came out and I told him I did not like it and he put it up in the tool shed in the barn and went away. This fall he sent notice and we payed no attention to it. The other evening he came and said if I would pay him \$15.00 he would take the cultivator, if not he would make us pay all of it. I want to know if I have to pay him \$15.00 when I signed no papers for the cultivator and have kept it in storage for 16 months.—L. F., St. Charles, Michigan.

—Under the facts related you owe the agent nothing. If he sues you, you will have to defend yourself and if the justice of the peace decides against you get a good lawyer and appeal the case. The circuit court judge will see that justice is done upon the trial.—Legal Editor.

TRAVELING EXPENSES FOR HIGHWAY COMMISSIONER

Will a highway commissioner serving a township, such service requiring the constant use of an auto, be required to furnish same from his salary or is he entitled to compensation for same?—L. B., Spring Arbor, Mich.

—Act 57, of the Public Acts of 1921 fixes the compensation of the Highway Commissioner at four dollars per day for each day actually and necessarily devoted by him to the service of the township in the duties of his office. This does not include his actual and necessary traveling expenses, which should be provided.—State Highway Department.

TRANSPLANT IN SPRING

Is it advisable to take up hardy plants like flax, peonies and iris now and store them down in cellar through the winter and set them out side next spring?—J. K., Dryden, Michigan.

—Flax, peonies and iris are much better in the ground for the winter than in any cellar protection you could give them. If they have to be moved for some cause or other from the position they are occupying, I would advise planting them in some permanent place protected by leaves or straw but they would be much better if transplanted in the spring.—Thos. Gunson, Asst Professor of Horticulture, M. A. C.

LANDLORD FURNISHES ALL BUT LABOR

I would like to know your idea of the subject of rent for a one hundred and twenty acre farm; horses and tools furnished, renter doing all the work. If the tenant received one-third of all the crops would this be fair to both? Who should pay, or what part of the threshing expenses should tenant pay? Tenant

may keep some chickens, farmer will furnish pasture for one cow.

—The usual practice under the above conditions, where the landlord furnishes everything except labor, is that the landlord receive two-thirds of income and tenant one-third, the tenant to pay one-third of thresh bill, seed purchased etc., and the landlord the other two-thirds.

As to the chickens and pasture for cow, this is an individual matter and can be agreed upon by landlord and tenant to suit conditions.—F. T. Ridell, Farm Management Demonstrator, M. A. C.

NOT OBLIGED TO MAINTAIN SLAUGHTER HOUSE

A butcher who has just been compelled to rebuild his slaughter house to make it sanitary, told me that the laws says, that all meat put on the market for the use of the public must be killed in a sanitary slaughter house. That the farmers could not kill meat and put it on the market. Does this law stop me from killing my hogs and selling them?—L. A. W., St. Clair County, Mich.

—There is no law nor department ruling in existence which seeks to compel a farmer to maintain a slaughter house or kill animals of his own raising in a slaughter house. He has a perfect right to do all of his butchering at any place on his farm, having in mind that if the meat is

to be offered for sale it must be prepared under sanitary and clean conditions.

Slaughter house regulations apply only to butchers and others who buy wherever an opportunity affords, and from any source from which animals are available.—M. J. Smith, Solicitor, State Department of Agriculture.

SEE ATTORNEY

One of my neighbors was driving on a highway and was put in the ditch by an auto. This driver was altogether to blame and does not deny it. My neighbor was hurt, the buggy broke and the harness. He went to justice of the town and the justice would serve papers to auto driver to settle, but he never came. This happened some time ago, and I would like to know if the matter could be taken up yet.—Mrs. M. B., Merrill, Michigan.

—I do not understand what is meant by "justice serve papers to settle." If it was a letter from the justice to the party who caused the account he would be under no legal obligations to answer it nor does it lessen the injured parties rights. The justice of the peace if not an attorney at law has no right to practice law. If the injury has not outlawed the injured party should consult a good attorney and he will tell him what to do and what he can do, to collect his damages.—Legal Editor.

MICHIGAN CROPS

WHAT IS DIVERSIFIED FARMING?

WHAT is meant by diversified farming, about which so much has been said of late? Prof. P. E. McNall of the Wisconsin College of Agriculture says it means anything but "jumping in and out of every sort of agricultural activity."

"The farmer who diversifies has important major source of income," declares Prof. McNall. "Usually this is some class of live stock; occasionally in this state it is some cash crop. This one enterprise must form the backbone of the farming business. It is the farmer's specialty. He knows and loves the work with this particular stock. He is in it because he expects to remain in the production of the stock and he will not drop it because prices are not temporarily as he would have them."

In addition to his main line of live stock production, the farmer who practices a good form of diversification, according to Prof. McNall, keeps stock of other kinds, to make the best use of farm by-products, perhaps, and he generally grows a cash crop as well. The idea is to have a number of sources of cash income, so that there will always be the chance of hitting a good market on some things produced.

Conditions the past two years have emphasized the need for great diversification. "Between 1916 and 1920," says Prof. McNall, "any farmer with energy could make money. A herd of cows, a few acres of crops, pigs, chickens or whatever the farmer had, was effective capital for bringing in the dollars. Neither management nor saving was required to pay all current expenses, and income which could have been used as reserve was expended either to increase the volume of business or to raise the standard of living. Since 1920 conditions have reversed. Very few farmers are making money."

Has diversification made headway the past two years? Think of the increased interest in hens. That is one step in diversified corn belt farming. Chicago Daily Drivers Journal.

POTATOES ON SAND

I have a sandy soil which has been farmed in following rotation as far back as I know. First year clover, second year corn, third year oats, fourth year clover (this was a poor crop) fifth year or 1922 crop soy beans for seed—the roots of which did not seem to have any nodules. There are 90 acres in this field. I want to put this all in potatoes in 1923 but will only have enough manure to cover at the rate of 10 or 12

loads per acre. Do you think this amount is sufficient or would it be best to only plant 6 acres of potatoes and apply manure more heavily? Is there any commercial fertilizer suitable for potatoes on sandy soil with gravel subsoil? If so what? On the same sandy soil in same field as described on this letter this year 1922 potatoes made 130 bushels per acre. the patch was manured at the rate of 18 loads per acre. This was a very dry year. What I wish to get at is, would not 10 loads of manure produce nearly as good results as the 18 loads? Is the Irish cobbler potato the best early market variety? How many bushels per acre for seed of the above variety?—R. S. Coldwater, Michigan.

—The application of manure, where ground is not so irregular as to cause washing, is best applied the previous fall, during the winter or early spring. Disk thoroughly before plowing. 8 to 10 tons of manure properly incorporated will give very good results. Too heavy an application of coarse strawy manure may cause the land to dry out excessively in a dry season, and especially if the manure is plowed down late and in such a way as to make a mat in the bottom of the furrow.

Slice by thorough disking before plowing, the manure is placed in the soil, in the position of a wick in a lamp and assists the action of capillary water rather than retarding it.

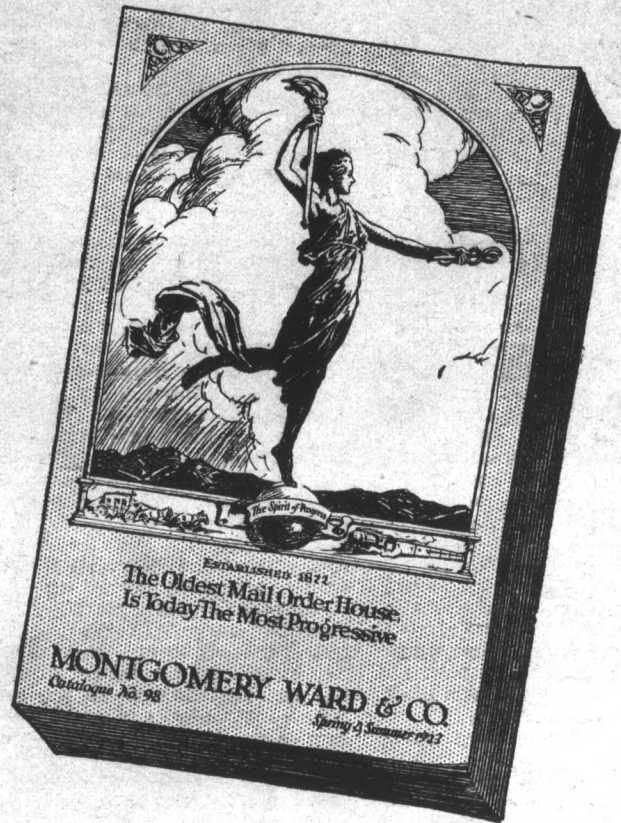
The commercial fertilizer used principally for potatoes is a 3-10-4 of a 2-8-10. The 3-10-4 fertilizer demonstrations applied at 400 lbs. per acre gave an average increase this year of 45 bushels per acre and at a cost of \$7.25 per acre or at a cost of 16 cents a bushel, for fall price of fertilizer.

The Irish Cobbler is a good quality, usually good yielding, early variety. It is somewhat later than the Early Ohio, the other standard early variety of potatoes. The planting date for early potatoes should be as soon as danger of severe frost is past in the spring. A good rule to follow would be plant your early potatoes before you plant your oats. The rate per acre, at least 12 bu. per acre, 15-18 inches apart in hills, rows three feet apart should be heavier on early plantings than on late on account of the danger of the frost killing the first growth and if good sized seed pieces are used there is sufficient plant food to start new growth. Where there is danger of frost when plants are small, 2 or 3 inches, high, run through field with a two wheeled cultivator, shovel set to cover potatoes and when danger of frost is past run crosswise with weeder and uncover plants. They will resume growth.—J. M. Weston, Potato Specialist, M. A. C.

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(Continued from Jan. 6th issue)
EVEN though it made no more racing cars the Ford company enjoyed prosperity without limit; like-

wise the automobile fever grew to white heat in Detroit. Fortunes were made quickly and lost as quickly, but through all the excitement Henry Ford clung to his policy of making a good car at the lowest possible price. In 1916 Mr. Malcomson sold his interest in the company to Mr. Ford and turned his time and attention to his coal business. Had he held his stock until 1919 and sold it then at the same price paid Mr. Couzens he would have received \$62,500,000. Mr. Malcomson is a man of wealth, however, although he did not make a dollar out of the company he founded and which has made other men multi-millionaires. Writers frequently come to him for his story. "If you will let me send that around the world I will make you famous," one journalist told him. "Think of what you are missing! This is your biggest opportunity."

Mr. Malcomson laughed. "You don't understand," he explained. "I do not want fame or newspaper notoriety either. Why, the most fun I get is listening to what people say in hotels and on trains. I've heard more versions of how the Ford company was started than you could think up in a year. Sometimes the story is so pathetic that it almost brings tears to my eyes; some times it is so funny that I almost laugh in the speaker's face. I wouldn't miss all this fun for anything."

Mr. Couzens left the Ford company on November 1, 1915, a month before the Peace Ship sailed, but continued as a director of the company until September 1, 1919, when he sold his interest in the company to Mr. Ford for thirty million dollars. As mayor of Detroit Mr. Couzens has made a name for himself, particularly by the fight he won for municipal ownership of the street car lines. He is sponsoring a municipal hospital that in plan and purpose will be wonderful, and he has at every opportunity championed the cause of the people of his city.

After the twelve years' connection with the Ford company the Dodge brothers notified Mr. Ford in February, 1915 that they did not care to handle the work longer, their contract expired in June. They later began the manufacture of their own car and sold their interest in the Ford company to Henry Ford and his son for \$25,000,000 each. It is reported that the holdings of the Gray estate were sold for \$27,000,000.

* * *

A young university graduate who expected to be advanced rapidly in the Ford service, remarked one day, "If I had Henry Ford's money I'd never prowl around the Rouge factory the way he does. All I'd know about the Ford industries would be what I read in the newspapers." His "prowling around" is undoubtedly has been one of the important factors in Mr. Ford's success. From the beginning no one in his employ worked harder than he, and no one works harder today. Mr. Ford believes that wealth is trust and he strives to use it accordingly, for the

betterment of the workers in the Ford industries. He prefers to raise industrial standards rather than to make more millions by exploiting his workers. His influence extends far beyond his own plants and has proved a boon to the working classes generally.

He holds the affection of the mass of his workmen as no other large employer can hope to. How he will stand by a man was demonstrated in the case of Emde in the Ford-Newberry senatorial race. This incident which contributed to Mr. Ford's defeat will be told in a subsequent chapter. The Ford employes are generally "well fixed." They have bank accounts, they own securities and many of them own their homes. The real test of a man's popularity is in his home neighborhood, where he is best known. Mr. Ford is remarkably popular in Detroit; the mention of his name brings enthusiastic applause and his appearance at a large gathering has, on more than one occasion brought the throng to its feet cheering. Mere money could not do this. His popularity is founded on the fact that he is recognized as the friend of the common people—and that gives him a tremendous personal following throughout the country. This popularity has made him the target of criticism, but the best answer to the critics of Mr. Ford's methods is found in the fact that there never has been a strike in any of the Ford industries during the nearly twenty years of their life—not even in the coal fields he owns.

Mr. Ford's activities in behalf of his employes are enthusiastically supported by Jack Henkel, his employment manager at the Highland Park plant. Henkel is honest and capable, but the heart and brain of the Ford system is Henry Ford himself. As is inevitable in such a large organization inequalities sometimes creep into the system. Those placed in authority have not always been loyal to their trust. But Mr. Ford is always on the alert and wrongs are quickly righted once they are detected.

When the five-dollar wage was put in effect at the Ford plants thousands of workmen were attracted to Detroit, many more than could be given employment. Much distress resulted. Mr. Ford called in a trusted friend and gave him \$50,000 with the request that the friend investigate conditions quietly and use the money to relieve the wants of the unemployed. None of those aided knew from whom the money came. Mr. Ford instinctively dreads notoriety and has an iron-clad rule that his name must not be connected with what he gives.

The wonderful achievements of the Ford factories are known wherever manufacturing is known. Industrial experts from far and near have come to Detroit to study the Ford methods. Many of these men have labored in the Ford plants to better acquaint themselves with the workings of the system. Such a man was K. Mim-

aura, employment manager of the Sumitomo copper works at Osaka, Japan. Although he worked for the Ford company for some time his identity was not learned until he resigned to return to Japan where he is now in charge of a large foundry and smelter. He left behind him in Detroit many friends and a trail of Japanese fans which he had ordered made in Osaka.

Early in the war a German baron went to Detroit and wanted to order five hundred Ford cars for immediate delivery.

"Mr. Ford is not willing to accept war orders," he was told.

"I understand all that," the baron replied impatiently, "but how long will it take you to make the five hundred cars?"

Quite patiently the company official explained again Mr. Ford's determination. This was beyond the baron's comprehension. "Don't jest with me he declared." "I want to place this order today. I am willing to pay your price. When can the cars be delivered?"

"It is now noon," the official told him. "It would take until 4 o'clock to make the five hundred cars. But Mr. Ford has issued orders that nothing will be manufactured for war purposes. That is his order. The only condition that would make him change it would be America's entry into the conflict." When America did enter the war the German baron probably recalled what he had been told in Detroit.

A French commissioner who came with a war order had a similar experience. He was shown through the plant. "Time them," said his guide as they stood watching the finished cars rolled away by the mechanical starter. "A finished car every twenty-nine seconds. Take out your watch and time them." The Frenchman did, but he got no cars.

Throughout the country many plants worked day and night during the war turning out munitions and other military supplies. The Ford plant was unique in that no work was done on Sunday. "My men must have their day of rest," Mr. Ford ruled. "We can do our full part without breaking the fourth commandment." And they did. Today one out of every ten of his employes is a returned soldier and half of these veterans are physically disabled. Henry Ford is still doing his part.

CHAPTER VI.

The Peace Ship

The facts about the Peace Ship—how the idea was presented to Henry Ford; the theory of what could be accomplished and the results, direct and indirect, of the undertaking, make a story far different from that believed by, perhaps, the majority of people. The true account set forth in the following pages was given the writer by persons in a position to know the facts, and every statement has been verified. Instead of criticism and ridicule Henry Ford deserves commendation for

By Sarah T. Bushnell

his endeavor. The person who persuaded Mr. Ford to undertake the strange mission of peace is omitted here for good reasons. This leader

withdrew from the party before the ship sailed and let Mr. Ford to endure the criticism and censure alone. Much as we may deplore the spectacular manner that marked the undertaking, the three hundred thousand dollars that it cost was not money wasted. As will be shown later the country profited by Mr. Ford's expenditure.

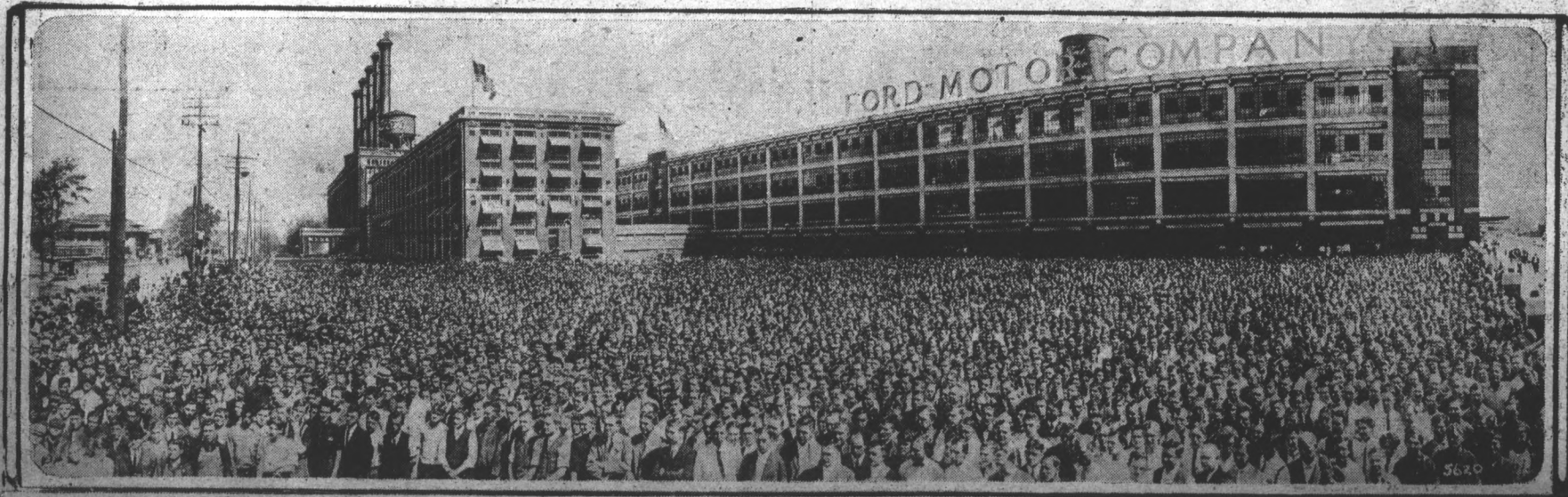
Rebecca Shelley and Angelica Morgan, two American women writers, one a delegate to The Hague Peace Conference in 1915, and the other also an ardent peace advocate, brought back to this country the report that Europe was weary of war, and that the battling nations were all eager for peace. These women believed that if a delegation representing neutral countries were sent to Europe the way could be paved for peace negotiations. They wanted President Wilson to appoint Miss Jane Addams of Chicago as America's representative.

Both women tried to see the president and also endeavored to have him receive Miss McMillan, a prominent English woman, then in America and Madame Schwimmer, an Austrian, who claimed to possess documents of vital importance in any effort to end the war. Failing to reach the president, Miss Shelley and Miss Morgan went to Detroit to see Henry Ford, who, they knew, was close to President Wilson. They failed again, but they did meet and talk with a number of prominent Detroiters; also they secured the cooperation of a number of active club women.

As a last resort Miss Shelley and Miss Morgan went to the office of the Detroit News to enlist the support of that paper. To the then editor-in-chief, E. G. Pipp, they stated their case thus: "Jane Addams is willing to go to President Wilson and lay before him all the information she secured at The Hague concerning the sincere desire of the European nations to end the war. President Wilson has refused to see her. Miss McMillan has proof that the Allies want peace. Madame Schwimmer has documents which show that the Entente will enter into peace negotiations. These women must return home unless the president sees them soon. At the rate the war is progressing America will soon become involved."

Mr. Pipp went into his private office and soon was talking to Mr. Tumulty, the president's secretary. "Your information must be incorrect," Mr. Tumulty told him. When Mr. Pipp repeated the story just told him. "President Wilson has not refused Miss Addams an interview. Perhaps if she makes another effort to see him it can be arranged. The president can receive only delegations including representatives from both sides in the conflict. They must bring with them authentic information."

Mr. Pipp then got into communication with Miss Morgan and Miss Shelley. Madame Schwimmer came (Continued on page 23)



This photograph taken in front of the Highland Park plant gives a glimpse of the 29,000 who work in one division of Henry Ford's industries.

Uncle Rube Spinach Says

JEST A HORRID-SCAPE

EVERY little while, bein' gifted that way, I take my lantern an' go out an' see what the stars has to say.

An' you know, I kinda believe in stars? Not so much in movie stars, not since "Fatty" Arbuckle, Wallace Reid, Mary Miles Minter an' several others have fallen from grace—'course Fatty has been reinstated by Mr. Hays but that don't make Fatty a bit different then he wuz when he pulled the party where Virginia Rappe met her death. He's jest the same 'ol Fatty he wuz then—so you see I don't go by movie stars as I did.

I am jest given you what's revealed to me by readin' the stars what I can see with my lantern.

This bein' kind of a dark night there ain't revealed to me so much as there ort to be but I take it as it comes an' give it accordin'.

One of the great calamities 'at I see, first an' foremost is the meetin' of the legislatur'. A lot of men git together an' squabble an' fight for four months to do what ort to be done in thirty days easy.

They'll pass laws 'at nobody understands, repeal laws we've already learned, give work to courts an' to city commissioners, raise taxes—whoa there! Say did you ever hear of a session of legislatur' 'at tried to lower taxes? No, by my whiskers! Ya never did—they jest try and see how much money can be raised an' then work overtime to see how they can spend it.

Well, the stars sex they'll be in operation any way so we might as well git ready for that.

An' then I see, by aid of my ol' lantern 'at some of our good citizens 'll try to git a law passed to make the sale of beer an' light wines-legal. 'Course that won't cut much figger but it will give our law makers some material to quarrel 'bout for a month or so an' help to make their pay check look larger at the end of the session.

Oh I see a lot of things in the stars—not movie stars ya understand—'cause they'r lots to be seen there but I'm getting 'long in years where such things don't matter so I'm sort of tryin' to forgit 'em—but in the every day life—well stars tell a whole lot of things if we only read 'em right.

And so this year, spite of the legislatur', spite of a good many other things not so bad, its goin to be a purty fair year after all.

Folk'll git married, babies'll be born, many'll die 'at never died before—yes an' be buried without hope—grafters'll ply their trade, coal miners'll talk strike an' prob'ly will strike and coal'll be high an' you an' I'll cuss some under our breath—coal operators 'll wax rich an' defy the government' congressmen'll set tight an' let things run along. Mr. Pres'dent Harding 'll ask for more power an' not use the power he already has to control things. Henry Ford 'll pay the biggest wages of any man in this country an' make more money than any of 'em, women will wear skirts long and short—jest as they feel, but most of 'em 'll fail to vote when they have the chance—grass'll grow where it has always grown, farmers 'll git the small end of the deal 'cause they don't hang together as they should, divorces an' remarrages'll continue, wives 'll shoot and poison their husbands as lovers an' go free. Fatty Arbuckle 'll come back, Wallie Reid 'll get well, bootleggers 'll keep on doin' business, dope 'll be peddled, preachers 'll preach, grafters 'll graft, flappers 'll flap, teachers 'll work for small pay, banks'll prosper and thieves 'll git in their work often an' vanish. In fact 'cordin' to the stars seen by my lantern this year'll be 'bout the same as other years only more so—shucks the ol' wick's burned out an' I'm all in the dark. Cordially yours, UNCLE RUBE.

THANKS, MR. HALL

I am taking advantage of your offer to renew my subscription at two years for price of one. "I like the "Farmer" better than ever. I see much improvement in the "makin's" especially the last number (Dec. 9) and hope you can continue in the good work. You truly, L. S. Hall, Leapeer County.

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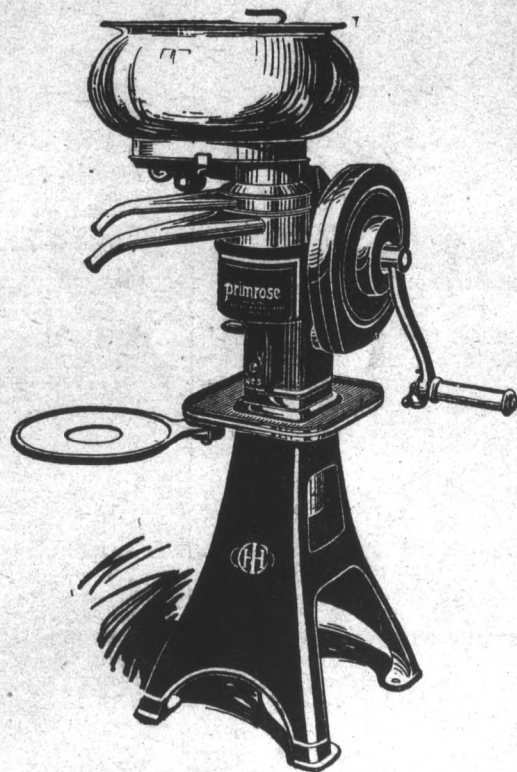
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The Hunted Woman

By James Oliver Curwood

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

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SYNOPSIS

JOANNE GRAY is one of the passengers on the train bound for Tete Jaune Cache, the home of "The Horde," where she has no friends and all will be strange to her. The train stops at a town composed of several tents, she goes in search of food and a bath. She is directed to "Bill's Shack" and here she meets Bill Quade, who not only owns and operates "Bill's Shack" but is also leader of the lawless men of the town. Quade says he has a room she can rent and that he will show it to her. As they pass out of the room a newcomer enters the doorway leading off the street. The newcomer is John Aldous, a well known novelist. He sees the strange girl enter the place and believes she has made a mistake and as he stands in the doorway his eyes rest upon the curtained doorway through which they have passed. In but a moment the girl steps out, face flaming and eyes flashing. Quade follows her apologetically. He starts to offer the girl money but before he can do so Aldous steps to the girl's side and floors Quade with a terrific blow. Aldous hurries the girl away from the scene to the home of friends. Joanne tells Aldous she is going to Tete Jaune to find her husband, Mortimer FitzHugh. Aldous decides to go with her to protect her from Quade and his partner Culver Rann. Aldous believes FitzHugh is dead and locates a friend who declares he has seen the grave. Upon their arrival at Tete Jaune they are met by friends of Aldous, the Blacktons, at whose place they are to stay during their stop. Aldous visits an old friend, Donald MacDonald and then strolls about town. He is on the lookout for Quade and Rann and finds them at Rann's home. He spies upon them.

(Continued from Jan. 6th Issue.)

Swiftly and silently he went to the rear of the house. He tried the door and found it unlocked. Softly he opened it, swinging it inward an inch at a time, and scarcely breathing as he entered. It was dark, and there was a second closed door ahead of him. From beyond that he heard voices. He closed the outer door so that he would not be betrayed by a current of air or a sound from out of the night. Then, even more cautiously and slowly, he began to open the second door.

An inch at first, then two inches, three inches—a foot—he worked the door inward. There was no light in this second room, and he lay close to the floor head and shoulders thrust well in. Through the third and open door he saw Quade and Culver Rann. Rann was laughing softly as he lighted a fresh cigar. His voice was quiet and good humored, but filled with a banter which it was evident Quade was not appreciating.

"You amaze me," Rann was saying. "You amaze me utterly. You have gone mad—mad as a rock rabbit, Quade! Do you mean to tell me you're on the square when you offer to turn over half of your share in the gold if I help you get this woman?"

"I do," replied Quade thickly. "I mean just that! And we'll put it down in black an' white—here, now. You fix the papers, same as any other deal, and I'll sign!"

For a moment Culver Rann did not reply. He leaned back in his chair, thrust the thumbs of his white hands in his vest, and sent a cloud of smoke above his head. Then he looked at Quade, a gleam of humor in his eyes.

"Nothing like a woman for turning a man's head soft," he chuckled. "Nothing in the world like it, 'pon my word, Quade. First it was De-Bar. I don't believe we'd got him if he hadn't seen Marie riding her bear. Marie and her curls and her silk tights, Quade—s'elp me, it wouldn't have surprised me so much if you'd fallen love with her! And over this other woman you're as mad as Joe over Marie. At first sight he was ready to sell his soul for her. So—I gave Marie to him. And now, for some other woman, you're just as anxious to surrender a half of your share of what we've bought through Marie. Good heaven, man, if you were in love with Marie—"

"Damn Marie!" growled Quade. "I know the time when you were bugs over her yourself, Rann. It wasn't so long ago. If I'd looked at her then—"

"Of course, not then," interrupted Rann smilingly. "That would have been impolite, Quade, and not at all in agreement with the spirit of our brotherly partnership. And, you must admit, Marie is a devilish good-looking girl. I've surrendered her only for a brief spell to De-Bar. After he has taken us to the gold—why, the poor idiot will probably have been sufficiently happy to—"

He paused, with a suggestive shrug of his shoulders.

"—go into cold storage," finished Quade.

"Exactly."

Again Quade leaned over the table, and for a moment there was silence,

a silence which Aldous thought the pounding of his heart must betray him. He lay motionless on the floor. The nails of his fingers dug into the bare wood. Under the palm of his right hand lay his automatic.

Then Quade spoke. There must have been more in his face than was spoken in his words, for Culver Rann took the cigar from between his lips, and a light that was deadly serious slowly filled his eyes.

"Rann, we'll talk business!" Quade's voice was harsh, deep and quivering. "I want this woman. I may be a fool, but I'm going to have her. I might get her alone, but we have always done things together—It ain't a hard job. It's one of the easiest jobs we ever had. Only that fool of a writer is in the way—an' he's got to go anyway. We've got to get rid of him on account of the gold, him an' MacDonald. We've got that planned. An' I've showed you how we can get the woman, an' no one will ever know. Are you in on this with me?"

Culver Rann's reply was as quick and sharp as a pistol shot.

"I am."

For another moment there was silence. Then Quade asked:

"Any need of writin' Culver?"

"No. There can't be a written agreement in this deal because—it's dangerous. There won't be much said about old MacDonald. But questions, a good many of them, will be asked about this man Aldous. As for the woman—" Rann shrugged his shoulders with a sinister smile. "She will disappear like the others," he finished. "No one will ever get on to that. If she doesn't make a pal like Marie—after a time, why—"

Again Aldous saw that peculiar shrug of his shoulders.

Quade's head nodded on his thick neck.

"Of course, I agree to that," he said. "After a time. But most of 'em have come over, ain't they, Culver? Eh? Most of 'em have," he chuckled coarsely. "When you see her you won't call me a fool for going dippy over her, Culver. And she'll come around all right after she's gone through what we've planned for her. I'll make a pal of her!"

In that moment, as he listened, to the gloating passion and triumph in Quade's brutal voice, something broke in the brain of John Aldous. It filled him with a fire that devoured every thought or plan he had made, and in this madness he was consumed by a single desire—the desire to kill. And yet, as this conflagration surged through him, it did not blind or excite him. It did not make him leap forth in animal rage. It was something more terrible. He rose so quietly that the others did not see nor hear him in the dark outer room. They did not hear the slight metallic click of the safety on his pistol.

For the space of a breath he stood and looked at them. He no longer sensed the words Quade was uttering. He was going in coolly and calmly to kill them. There was something disagreeable in the flashing thought that he might kill them from where he stood. He would not fire from the dark. He wanted to experience the exquisite sensation of

that one first moment when they would writhe back from him, and see in him the presence of death. He would give them but one minute of life—just that one. Then he would kill.

With his pistol ready in his hand he stepped out into the lighted room. "Good evening, gentlemen!" he said.

CHAPTER XIII

For a space of perhaps twenty seconds after John Aldous announced himself there was no visible sign of life on the part of either Quade or Culver Rann. The latter set stunned. Not the movement of a finger broke the stonelike immobility of his attitude. His eyes were like two dark coals gazing steadily as a serpent's over Quade's hunched shoulders and bowed head. Quade seemed as if frozen on the point of speaking to Rann. One hand was still poised above the table. It was he who broke the tense lifeless tableau.

Slowly, almost as slowly as Aldous had opened the door, Quade turned his head, and stared into the coldly smiling face of the man whom he had plotted to kill, and saw the gleaming pistol in his hand. A curious look overcame his pouchy face, a look not altogether of terror—but of shock. He knew Aldous had heard. He accepted in an instant, and perceptibly, the significance of the pistol in his hand. But Culver Rann sat like a rock. His face expressed nothing. Not for the smallest part of a second had he betrayed any emotion that might be throbbing within him. In spite of himself Aldous admired the man's unflinching nerve.

"Good evening, gentlemen!" he repeated.

Then Rann leaned slowly forward over the table. One hand rose to his moustache. It was his right hand. The other was visible. Quade pulled himself together and stepped to the end of the table, his two empty hands in front of him. Aldous, still smiling, faced Rann's glittering eyes and covered him with his automatic. Culver Rann twisted the end of his moustache, and smiled back.

"Well?" he said. "Is it check-mate?"

"It is," replied Aldous. "I've promised you scoundrels one minute of life. I guess that minute is about up."

The last word was scarcely out of his mouth when the room was in darkness—a darkness so complete and sudden that for an instant his hand faltered, and in that instant he heard the overturning of a chair and the falling of a body. Twice his automatic sent a lightning-flash of fire where Culver Rann had sat; twice it spat thread-like ribbons of flame through the blackness where Quade had stood. He knew what had happened and also what to expect if he lost out now. The curiously shaped iron lamp had concealed an electric bulb, and Rann had turned off the switch-key under the table. He had no further time to think. An object came hurtling through the thick gloom and fell with terrific force on his outstretched pistol arm. His automatic flew from his hand and struck against the wall. Unarmed, he sprang back toward the open door—full into the arms of Quade!

Aldous knew that it was Quade and not Culver Rann, and he struck out with all the force he could gather in a short-arm blow. His fist landed against Quade's thick neck. Again and again he struck, and Quade's grip loosened. In another moment he would have reached the door if Rann had not caught him from behind. Never had Aldous felt the clutch of hands like those of the womanish hands of Culver Rann. It was as if sinuous fingers of steel were burying themselves in his flesh. Before they found his throat he flung himself backward with all his weight, and with a tremendous effort he freed himself.

Both Quade and Culver Rann now stood between him and the door. He could hear Quade's deep, panting breath. Rann, as before, was as silent as death. Then he heard the door close. A key clicked in the lock. He was trapped.

"Turn on the light, Billy," he heard Rann say in a quiet, unexcited voice. "We've got this house-breaker cornered, and he's lost his

(Continued on page 21.)



Fruit and Orchard

QUESTIONS INVITED

Edited by
Frank D. Wells

THE FUTURE

THE indications are that orchard planting will be extensive for at least two years to come. Nursery men are reporting a shortage in some varieties now, with many weeks remaining before orders will cease coming in. Peach stock is in the lead as is to be expected, but apple is a good second; the call for cherry is evidence of a rapidly growing interest in this fruit, while the plum is by no means neglected. On account of the blight the pear has been in disfavor, but even with that against the fruit an unusual number of trees will be set next spring.

Now what will be the result of this heavy planting? Well, for one thing many trees will be set where they ought not to be. Thousands of acres will be used for orchards which better be kept for other purposes. The result is a loss to the growers and little benefit to anybody, except the nursery man who sells the stock.

But there is much to encourage the man who is in the game to stay. The demand for fruit is increasing. It is no longer a luxury, but a food necessary to the health and welfare of the people. Not only is the amount consumed per capita on the increase, but new markets are being opened up and this will continue for many years to come. Better means for transportation ought soon to bring not only Europe, but Mexico, South America and even South Africa within reach of our apple.

At home the uses of fruits are becoming more numerous. A few years ago the suggestion that sugar could be made out of apples would now sound ridiculous. Now it is to be expected in the near future. If the apple, why not other fruits?

Prohibition has increased the demand for fruits and this will to some extent continue, even though

the country again becomes wet. Fruit juices have the virtues without the vices of the stronger beverages.

However we may look at it, the future is bright for the grower who will produce a good class of fruit. As for the other kind, no sympathy need be wasted there anyhow.

SETTING OUT PEACH TREES

I want to set out some peach trees next spring and have not ordered the stock. The two-years trees are much cheaper than the three-year stock. Would you consider them as good? The agent wants me to take the three year trees and says they will bear quicker. I want fruit as soon as I can get it.—H. T. R., Davisburg, Michigan.

—It is not probable that either you or the agent or any of your neighbors ever saw any three-year stock from a nursery. Now and then there are cut-backs, but they are save. Those trees were planted at the same time which was in the fall of 1920, they were budded in 1921 and dug in the autumn of 1922. Those large trees are nearly overgrown stock. Most orchard men of experience prefer medium trees to the large size. Plant them side by side. The chances are that they will bear at the same time. As for living, the odds are in favor of the smaller trees.

TIME TO PRUNE GRAPE VINES

When is the time to prune grape vines and when should cuttings be made? How long would you make them?—C. J. N., Pontiac, Michigan. —March is the favorite month for pruning and cuttings are made at the same time. Make them long enough to include three joints. Bury in a box of moist sand, top end up, keep in a cool place.

FUR DEPARTMENT

Edited by A. R. HARDING, America's Foremost Author and Trapper

QUESTIONS INVITED

SKUNK AND MUSKRAT RAISING

I have been thinking of trying skunk and muskrat raising. My farm is mostly work land and if I tried muskrat I would have to make an artificial pond. Do you think muskrat could be raised on grass and green feed in the summer or would they have to have wild grasses and roots? Do they eat the roots of grass in summer or just the wild grass itself? Could they be fed on clover hay in winter? I know they will eat quite a variety of feeds.

I have been told that it is a simple matter for anyone to operate on young skunk and take away the scent sack. Is this so? Can you tell me where there is a skunk farm that I can buy breeding stock from?—Inquirer, Clinton County, Michigan.

—There are thousands of small ponds, lakes, marshes, etc., in the state that it would be best to rent or buy such rather than to go to much expense to make an artificial pond. If you have a place where you can make a pond cheaply then it will pay. Yes muskrat can be raised on "grass and not green feed in the summer" but they like roots best. I do not think that muskrat would relish clover hay, but probably if fed from a silo it would be eaten. I think best to raise turnips, carrots, pumpkins, corn, altho it is roots of flag, wild rice and other water growing plants that muskrat like best.

The would-be muskrat raiser had best get the food supply under way before getting too many muskrat for after they are numerous they do not allow the spreading of the food supply. It is a good plan to plant flag (cattail) sow wild rice, etc., even before stocking up a new pond or swamp for the muskrat will increase faster than the food supply. Most ponds and swamps are worth far more, acre for acre, to raise muskrat than is the best of land for farming or pasturing. The time is fast approaching when the many swamps, ponds and small lakes will annually be bringing to their owners a harvest of muskrat pelts, worth far more than any other crop the farm produces on the same number of acres, and at less cost.

Most raisers of skunk now remove the scent sacks which is easily done. The method is fully explained and illustrated in Fur Farming, a 278 page book, dealing with the raising of skunk, muskrat and other fur animals, price \$1.00. The book can be gotten of the Michigan Business Farmer.

Coon and mink are two animals that do not require much space to raise and are also money makers if rightly handled. There is room for thousands to engage in fur raising—in fact if many do not the supply will not be enough in a very few

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DAIRYING LEADS

THE development of the dairy industry has been one of the bright spots in the field of agriculture. It is today by far the largest branch of agriculture as well as the most profitable. The annual milk crop is close to one hundred billion pounds, the value of which in 1922 was greater than the output of the steel industry, more valuable than the combined wheat, oats, cotton and tobacco crops of that year and worth more than all the beef cattle, hogs and sheep put together. This gives one an idea of the magnitude of the business, which has further advantages in that after producing so much wealth the original animals are still left ready to do it over again, less fertility is removed from the soil than by any other crop or stock, and the income is steady—every month in the year.—F. J. Arend, President of the De Laval Separator Company.

THE NEED OF A FARM CREDIT BILL

SEVERAL measures are before congress at this very minute for the extension of credit to the farmers of this country. Luckily, as congress is now balanced there is little fear, but what one of the bills will pass both branches in record time and will find the willing signature of the President, who appears now to be fully awake to the condition which farmers have found themselves in the past two years.

Agriculture offers, the firmest foundation on which credit can be extended and the critics who cry "class legislation" do not take into consideration the fact that upon the farmer and his buying power depends the whole business fabric of prosperity.

The farmer asks only some form of long-time paper, which will permit him to buy his seed, his fertilizer or his live stock and will not force him to sell the resultant product until he can do so, on a profitable basis. The common three month loans, in the majority, fall due at approximately the same time and bankers crowding the farmer for their money, force on the market more than it can assimilate. We call this a "glutted market" and so accustomed has the whole farming business become to it, that we have taken it almost as a matter of course.

The past two years have forced action on this problem of credits and the next two months will, we predict, see one of the greatest steps forward ever made in the history of American agriculture. This may be the silver-lining to the readjustment clouds.

THE ISLE ROYALE PROJECT

DO not be lead quickly to a decision regarding the acquisition of Isle Royale, as a state or national park. This plan mentioned by the Governor in his message, is at present the center of a lively discussion in the metropolitan newspapers and there is such a cloud of propaganda smoke arising from both sides that it is rather hard to see the real facts as they exist.

There is no question as to the beauty of Isle Royale or its fitness to be used as a great natural park, the like of which could be found only by traveling as far west as Yellowstone. There is no question either, but what this and future generations would find full use for it. Each

year distance is shortened by improved means of transportation. When Belle Island was acquired by the "village" of Detroit those who opposed it probably pointed out the fact, that few would ever paddle their canoes that distance to have a picnic!

The real question is, how can it be acquired, either by the state of Michigan or the national government without increasing present high taxes? It has been suggested that the copper company which owns it, should give it to the state for some concessions which would not involve the spending of any sum of money at the present time. Other plans too have been suggested, but the one that seems to us most logical, unless the national government should buy it with present appropriations, is that some living citizen or group of citizens should buy it, present it to the state and thus immortalize their names.

No credit can be given anyone for opposing some solution of a plan to retain for the coming generations one of the real gifts of the Almighty to mankind.

CURBING THE STOCK SALESMAN

MILLIONS of dollars worth of now worthless stock was sold in Michigan by glib, easy-talking salesmen who promised that with a small payment down, the stock they were selling, would pay for itself, from the dividends which it earned.

Farmers and city folks alike, took the bait; hook, line and sinker; paid ten per cent down, gave their note for the balance and hoped to pay up their notes with the dividend checks which the salesmen "promised" would be forthcoming, usually within a month, sometimes before the end of the year.

There is a bill before the present legislature which will put a good stiff bit in the mouth of every man who goes out to sell stock. It will make him liable for every statement and keep him properly tagged where the authorities can nab him when he slips back into any of his old, loose habits.

It may be a little late to lock the barn door so far as the farmer is concerned, because we are not exercised at the moment over the amount of stock being sold to farmers at this time, but with the more prosperous days which are flirting with us just ahead, it will be a mighty good protection for the future.

A GOOD TIME TO PUT TOOLS IN SHAPE

A GOOD many harsh and rather pointed remarks have been made about the farm machinery that ones sees standing in the fields where farmers left it when the last season's progress made it no longer necessary.

We do not like to believe, that farmers are, as a class, any less frugal or careful with their tools and machinery than any other group of out-door workers, but often an example of utter wastefulness is driven home to you as you pass a hay-loader, a mower or a binder, standing in an open field half buried by winter snows.

Our cover picture this issue suggests that now, in January, is a mighty good time to take inventory, look over your machinery, repair it where it needs repairing and cover it with rust resisting oil or other preparation so it will be all ready for use next spring and summer.

THE LONG WINTER EVENINGS

THE folks on the farm, of all people, are to be envied for the privilege of the long winter evenings, if the family knows how to enjoy them.

Good books, magazines, a game or some music while the fire crackles and the snow goes scurrying by the windows! That's contentment and if contentment is happiness, and happiness is all we on earth are striving for, then indeed are we rich, altho we have but few of the luxuries.

Now, has been added to the joy of the long winter evenings on the farm a thrill for those who are fortunate enough to possess the modern Alladin's lamp, a radio receiving set.

A few wires strung out towards the barn. A little bundle of electric equipment that is not so expensive but what the average farmer in Michigan can afford it and yet here is the key to the whole world of entertainment and education.

Father and the boys can build a good radio set and put it in operation. There are few small towns where this equipment is not sold and the catalog houses all list the complete or partly completed outfits.

We in Michigan are particularly fortunate because Detroit has two of the best sending stations in the country, operated by two of the great dailies who vie with one another in the quality of their daily and evening concerts. On the western part of the state the sending stations at

Chicago and Milwaukee can be as easily heard and East Lansing is already broadcasting on a small scale.

Our radio editor, Mr. Ferris, is traveling about the state, carrying his receiving outfit and demonstrating it before local gatherings of farmers to whom he explains its mysteries. If he gets in your neighborhood do not fail to hear him or if your local church or organization want him for an evening, write him in care of this paper.

It will make the long winter evenings even brighter for us when we know there is a radio receiving set in the home of every one of our readers.

YANKS FROM THE RHINE RETURN

IT didn't take long after France had announced her intention of occupying the Ruhr district, for the powers that be at Washington to decide that, after all, there was no real reason for the more than a thousand American soldiers and their officers who were still keeping watch on the Rhine, to be there.

None of the former allies take very kindly to the program which France has set out to accomplish, and it makes the shivers run up and down your spinal column to contemplate what would happen if Germany, resenting the action of France would call upon Russia and those two should attack France, who, because of her egotism had cut off the support of her former allies.

MICHIGAN'S NEW INFANT INDUSTRY

OVER on the west coast of Michigan there is developing an industry which for daily production makes Mr. Ford's factory look like a piker. The "baby chick" hatcheries in the country surrounding Holland and Zeeland, produce live, peeping little waifs of bird life faster than your Ingersoll can tick off the seconds.

Giant incubators, warmed by great coal-burning boilers, keep the vigil over millions of eggs, which once were intrusted to the motherly hen. Poultry raisers have come to recognize that it is far cheaper to buy "baby chicks" than it is to expended the effort and run the risks of individual

Michigan now leads every state in the United States in the production of "baby chicks" and the far-sighted men who have developed this amazing industry so quickly, have brought new claims for world-fame to our state.

OUR LANSING CORRESPONDENT

OVER at the state capitol, one of the most interesting sessions of the legislature, to farmers especially, is now well under way. There is more expected and more must be accomplished by this present legislature, than any which has met in years.

Tax reduction programs galore are offered for the relief of the present situation, many of them undoubtedly to make their sponsors strong with the home folks altho they have little excuse for appearing as practical schemes.

For the benefit of readers of The Business Farmer, we will have a digest of what is being accomplished at Lansing and our correspondent will also be glad to answer any questions or report on the voting of any individual member on any bill.

There are two fellows we never envy and one of them is the country doctor. To be routed out of bed at three a. m., pull on cold shoes, hitch-up or crank-up and drive out, miles and miles, to a house of sadness; or even worse, to get there and find only a case which a tablespoon of castor-oil the night before, would have easily cared for! The other fellow we don't envy is the fellow who has to collect for the doctor!

As the riveter on the 48 story Woolworth building said as he looked down at the street cleaner, on the busy thoroughfare four hundred feet below: "There ain't money enough to hire me to run the risks that man does!"

The automobile tourist may enjoy the paved roads most in the summer, but it is the farmer who appreciates what they mean during the winter months. Yet, how easy it is to forget that long stretch of clay, the deep ruts and belly-deep mud, when the hard road has covered it and ironed it out! As Eb Jones says: "Good roads are awful expensive, but they're awful nice!"

A noted Frenchman is in this country teaching us to say: "Day by day, in every way, I'm getting better and better!" That ought to be doubly good advice for the whole agricultural business and we would have a lot of good reasons on which to base it, too.

How has Mr. Pritchard been hitting the weather in your locality?

What the Neighbors Say

WANTS ISLE ROYALE

THE future of Isle Royale is at the turning of the roads. One leads to private ownership, lumbering, fire, devastation and perpetual desolation. The other road leads to the purchase and preservation forever of this last bit of virgin territory by the state. The cost would not be excessive. With the recently acquired tract on the extremity of Kenesaw Point this would form an important link in our rapidly expanding state park system. The more and more picturesque state parks we have the more tourists will visit our state, with resulting benefit to all, not in the least among them the farmers. As the years go by and such places of beauty disappear from other places the more we could appreciate the foresight of our present-day legislators in providing such a refuge.

Opposition to the proposed purchase apparently comes entirely from chronic pessimists who habitually knock all such propositions through narrow-mindedness or fear of increased taxation. One statement was that it would require \$4,000,000 to acquire it and twice as much to improve it. According to Governor Groesbeck the highest cost should not exceed \$500,000 and might be less or possibly practically nothing. As to improving it it is highly improved already. There is not a foot of road constructed suitable for a whizzing automobile. Nature has taken infinite pains and centuries of labor to improve it; man may destroy it in a day.—Ralph Beebe, Wayne County, Michigan.

ADVERTISING WILL DO IT

DO you have any means of securing accurate statistics on results secured from advertising campaigns intended to increase the demand for different kinds of farm produce.

I am firmly convinced that intelligently conducted advertising campaigns would stimulate the demand for many farm products, such as potatoes, apples and dairy products, to an amazing degree but I fear it is going to require a lot of effort before our organization leaders will be brought to realize the importance of, and necessity for action.

Isn't there some city in Michigan, where the local co-op. or farm bureau would co-operate with city dealers in conducting a potato selling campaign, and secure fairly accurate check on results?

Personal inquiry among farmers seems to indicate that the per capita consumption of potatoes, in the rural districts, varies from three to fifteen bushels per year regardless of the market value of the spud. Imagine the result, if the national consumption should increase even to ten bushel per capita! I might add that strange tho it may sound, in the homes where most potatoes are eaten, the standard of living is often above the average.

When one thinks of a nation wide advertising campaign to increase the demand for essential food products, one is thinking in terms of a vast project, of course. It's going to require a lot of careful thought and planning, but why delay the beginning?

The farmers' business will never be on a sound economic basis, until he places it their himself, coddling and pampering will never do more than prolong slightly the life of the weakling. But the farmers' business will never be upon a sound basis until he adopts modern business methods.—Lisle E. Berry Sec'y-Treas. Cheboygan County Farm Bureau.

Mr. Berry has, in the above letter, struck at a very vital point in the whole present marketing proposition and one in which the Business Farmer is greatly interested. There actually exists in Michigan an opportunity to advertise beans, for instance, to the great consuming public of America, which is as obvious and practical as any staple now being advertised by the growers' association of California. Citrus fruit growers were first to start the national advertising campaigns to in-

crease the use of oranges, lemons and grape-fruit. Their success was so instantaneous and pronounced, that now prune, walnut, almond, and raisin growers of California advertise their products regularly in the newspapers and magazines which reach particularly the great city markets.

If, as Mr. Berry points out, the average consumption of potatoes could be increased to ten bushels per capita, there would actually be a potato shortage in the United States today! Can you imagine such a condition under present circumstances. Yet, probably a half-a-cent a bushel would have created a fund which would have screamed, holed and repeated "EAT POTATOES EVERY MEAL!", from every magazine, newspaper and bill-board in the country.

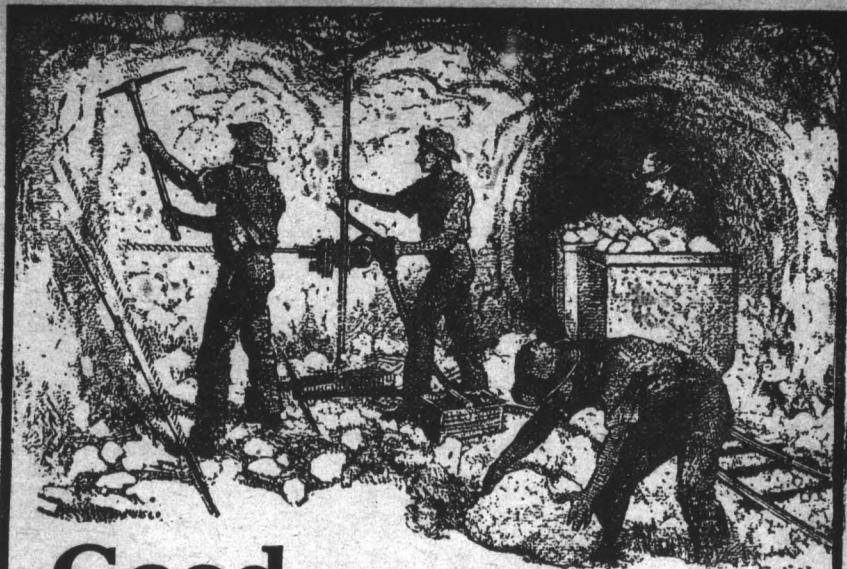
There are a hundred and ten millions of people in these United States and they are easily reached because they all speak the same language. They are in the habit of buying what they see advertised, because they have come to realize that no inferior article can continue to be advertised, but the more advertising, the more sales and consequently the lessened cost to the consumer.

Michigan could afford a nevy bean advertising campaign of her own, because she produces more than 70% of all the beans sold in America. In a potato campaign she would be joined by Wisconsin, Maine and other states. The Business Farmer power to the carefully planned test-out of a campaign to increase the sale of any product grown on the farms of Michigan, through advertising direct to the consumer. Let us hear from those who are with us or have suggestions for such a plan.

DEDICATED TO ALL TRUE PATRONS OF HUSBANDRY

PITY the farmer! Of course you do.

What else could a human being do? With taxes up and prices down, on everything he hauls to town. He tries to think of the terrible cost of hours of labor that he has lost, for a bumper crop that they didn't need that wouldn't pay for the cost of seed. And a tear goes trickling down his face, as he grates his teeth and quickens his pace. For he knows that the interest has got to come, or he will do what some others have done. And he turns the alarm on the clock ahead to shorten the hours that he stays in bed. (The efforts that should have made him rich is surely driving him into the ditch.) Then he thinks of Mollie who was fresh as a lark. But is now wrinkled and her face is dark. And he thinks of the Liberty bonds he bought, and almost wishes he'd went and fought, and died perhaps in that terrible hell, and buried beside his boy that fell. Alas! These thoughts have shattered his pride. His hoe has fallen by his side. "My son, to freedom's cause I gave." "Must his poor old father be a slave? 'I'll not surrender. I'll try once more," as he gets a vision of the poorhouse door. But a great big motor goes whizzing by on a road he paid for at a price too high. The driver he lives in that fine abode. Why he bought the bonds that built this road. He opposes a tax on gasoline, because, he's driving a big machine. "For two cents a gallon," I've heard him say "twould cost three shillings to drive all day." They voted the bonds to build the road. It's no more than right they should carry the load. "And father he left me my castle so fine. He made it lumbering Michigan pine. And I'd spend a million to defeat that bill fore I'd give a penny to grade that hill." Well Molly I guess we'll haft to roam when we lose our heart, we lose our home. For the mortgage is held by John McLean, who opposes the tax on gasoline. So we'll leave the place where our children played, where we've loved and enjoyed and worked and prayed. And down in the valley in the quiet shade, where God has promised the rich won't be, you and I may be tax free.—C. P. Barry, County Mich.



Mining German Potash

Good Healthy Crops

It has long been known that *German Potash Salts* prevented certain plant diseases, as well as greatly increased the quantity and improved the quality of crops.

Scientific investigation now shows us that not only *Potash* but also *Magnesia* is required to prevent certain plant diseases.

The *German Potash Salts* contain *Magnesia* as well as *Potash*.

If you insist on having your fertilizer contain from 5 to 10 per cent of *Potash*, derived from *Genuine German Potash Salts*, you will secure at the same time enough *magnesia* to prevent plant diseases due to *magnesia* hunger.

For *Tobacco*, and for those *Fruits* which are injured by *Chlorin*, the fertilizer should carry 10 per cent of *Potash*, derived from *Sulfate of Potash* or from *Sulfate of Potash Magnesia*.

Use the latter if your tobacco leaves are not sound.

SOIL & CROP SERVICE, POTASH SYNDICATE

H. A. HUSTON, Manager

42 Broadway

New York City

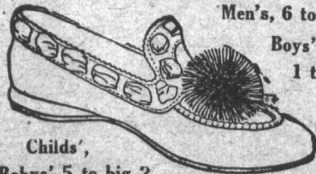
POTASH PAYS

Special January Sale Felt Slippers, \$1.00

Women's, six colors, sizes 3 to 8

Men's, 6 to 12

Boys' 1 to 6



Child's

Baby's 5 to big 2

We have sold thousands of pairs.

Add 10c for post.

DAVIS BROS., Lansing, Mich.

Keep Michigan Business Farmer
Coming. See page 25.

Corrugated Metal ROOFING

Think of it. We can now sell Excell Metal Roofing, 28 gauge corrugated at only \$3.10 per 100 sq. ft. painted. Galvanized, only \$4.50. If you have been waiting for metal roofing prices to come down, here they are—direct from factory prices—lower than you can get anywhere else. Send for our New Catalog covering all styles Metal Roofing, Siding, Shingles, Ridging, Ceiling, etc., will save you money.

PREPARED ROOFING ONLY \$1.05

Don't buy Roofing, Paints, Fencing, Gas Engines, Tires—anything you need until you get our latest catalog. You can see and try our roofing before you pay. All sold on money back guarantee. Write for Money Saving Catalog today.

The United Factories Co., 704 Marion Bldg., Cleveland, Ohio

A BETTER JOB NOW!

Learn good trade in a few weeks. 12 million autos, trucks and tractors need service. Repairs needed. Write today for FREE catalog giving full particulars. Michigan State Automobile School, 2201 Auto Bldg., Detroit, Mich.

AS THE TWIG IS BENT

SEVERAL letters have come to my desk recently asking me to encourage a discussion on the bringing up of children. Since that to my mind, is women's best and biggest undertaking. I think it eminently fitting that we mothers and teachers and fathers too perhaps, exchange our ideas and speak our difficulties. One letter will be found in to-day's issue, on the subject.

I always feel particularly gentle toward little children, born into this world where everything is so big, so hard to understand, so full of don'ts, so full of places to get hurt, so full of stomach aches and toothaches and heartaches. If added to all this then life is certainly not a pleasant place. No doubt most children get the love and gentleness they need but we all know that there are cases where they do not, as their are cases where not enough firmness is shown, one is as bad for the child as the other.

We must admit that children are also handicapped from the start by inherited characteristics, the faults if father and mother and many fathers and mothers before them and we must take into consideration that they have much to overcome. Are we not often aghast on coming upon some fault or failing of our own reflected in our youthful progeny?

Childhood is supposed to be the happiest time of life and if a child has favorable surroundings I believe it is, but we must remember that the disappointments of children are just as big to them and troubles are just as large as ours are to us and they have not our philosophy that enables us to hear ours with some degree of calmness and hope. We have learned that nothing is final, that if we are good fighters, which we all need to be that we may turn defeat into success, that, as Kipling says, we may build again with rusty, worn-out tools. A child cannot see beyond the present situation, he has no experience to draw from, so we must kindly and sympathetically, encourage and admonish and let him know that he may always draw upon our love and experience.

Gradually his confidence in our judgement will grow and we may be able to save him from many pitfalls.

I believe too, that when a parent finds he has made a mistake it is a good thing to own up, you can't fool a child very often, do you not often wonder just what children think about us grown ups? I believe they are generally to polite or too wise to tell.

This little talk is just an opener, there is much to be said but let us hear from our readers, we might take up topics in detail, such as:

Teaching manners.

Teaching children how to properly care for their bodies.

How to get along with other children.

How desirous it is to tell the truth.

How to get and keep their confidence.

LEAGUE OF WOMEN VOTERS

ONE of the best accomplishments of the League above mentioned, was the passage of the bill in September of 1922, providing independent citizenship for married women. The enactment of this law removed the last federal disability remaining after suffrage was granted.

I will give section 1, which fully explains the act.

"Independent citizenship of women to the end that no American citizen shall lose her citizenship by marrying an alien, and that no alien woman shall acquire American citizenship by marrying an American citizen, the choice of citizenship resting with the individual woman as it rests with the individual man in the present law."

The passage of this act was simply making the status of women equal with that of men, in obtaining citizenship, and on it's face it manifestly fair. Sometimes a peculiar case brings the matter to our minds. I have a friend who was born in Canada, coming here as a child, with her parents, she lived here 50 years, unmarried, and then found that she was not a citizen and the only way she could become one was to marry an American citizen! Her mother,

The Farm Home

A Department for the Women

Edited by MRS. GRACE NELLIS JENNEY

brothers and married sisters were all citizens, but she could never become one (unless married) altho a loyal and patriotic American. This is just one of the good things the League has put thru.

POEMS MAY BE FOUND

IN the M. B. F., of December 23 I notice a request for the poems, Brier Rose and Lasca. Both of these poems are found in a book called, "The Speaker's Library." It is an old book. I have had mine about thirty years. It was edited by Daphne Dale and published by

other a philosopher and scholar living in Rome.

The book deals with the three years of Christ's active ministry and is most beautifully written and reverently expressed.

It makes the claim that Mary Magdalene was the Mary, who was the sister of Martha and Lazarus, this point has been often disputed. It gives a first hand description of the raising from the dead of Lazarus, with new details, also a conversation and description of Saul of Tarsus, later Paul the Apostle, and many other details which I cannot take

HOW DID YOU REST LAST

HOW did you rest last night?

I've heard my Grand'paw say
Them words a thousand times,
That's right—

Jes' them words thataway,
As punctual-like as morning dast
To ever heave in sigh
Grand'paw 'ud allus haf to ast—
"How did you rest last night?"

Us young-uns used to grin
At breakfast on the sly,
And mock the wobble of his chin
And eyebrows helt so high

And kind: "How did you rest last night?"

We'd mumble and let on
Our voices trimble and our sight
Wuz dim and hearing gone.

Bad as I ust to be
All I'm a wanting is
As pure and calm a sleep for me
And sweet a sleep as his.

And so I pray on Jedge'ment Day
To wake and with it's light
See his face dawn and hear him say—

"How did you rest last night?"
—Riley.

Elliot ¼ Beezley, Chicago, Ill., and Philadelphia, Pa.

We have been reading the M. B. F., about two years and I always enjoy the Home Department.

I would like to have discussed in this department the subject of training children. I try to teach and train my children in the right ways but they are so "harum-scarum," not at all the little "lady and gentleman" that some people think children should be and I wonder if I am failing in my duty in this respect.

Wishing all a Happy New Year.—Mrs. Maude Bacon.

UNDER PONTIUS PILOT

A READER of the Business Farmer asks me whether the author of the above mentioned book, Wm. Schuyler, really wrote the book from the letters mentioned in the translator's note or whether the letters themselves are imaginary. I have written a Mr. Chislow of Vermont who helped Mr. Schuyler in the translation according to the author's note, for information. This is a matter of general interest to all who know the book so I publish the request. The book is composed of letters written in Latin, originally, between two Roman citizens, one an officer in the army of Caesar and the

space to enumerate. If the letters are genuine, it is a valuable book, if fictitious then compelling piece of imagery but without historical value.

Any information that I am able to obtain will be published. I would advise any one to read the book whether the letters are found to be genuine or not. It is well worth the time spent in reading it.

HE REMEMBERED THE BIRDS

CHRISTMAS as I was taking a walk in a place where farmer's respective woodlots join making a tract of some 200 acres of forest, I was following a wood-trail of a neighbor and my attention was attracted to the numerous quail tracks, all seemed to be going in the same direction I was. Suddenly they flew up—two large flocks of them—and I saw a place under some ash trees where several square rods of snow and leaves had been turned over by them. I looked to see if there were many seeds on the ground and I discovered that my neighbor had sown wheat all over the place, and this was what the birds were after. This was a very immaterial act in itself, i.e., of taking a few handfuls of grain and scattering it for the birds, yet it set me to thinking just why my neighbor did it.

AIDS TO GOOD DRESSING

For Simplicity, Service and Style

Address orders to Mrs. Jenney, Pattern Department, M. B. F.

Send 15 cents in silver or stamps for our Up-To-Date
FALL AND WINTER 1922-1923 BOOK OF FASHIONS

4201



4201



4201

A Popular Play Dress

4201. The simple version of the "Romper" fashion will readily appeal to the busy dress maker, because of its easy development and comfortable lines. Gingham was selected for this style with white lining for collar and cuffs. The sleeves may be in wrist or elbow length.

The Pattern is cut in 4 Sizes: 2, 3, 4, and 5 years. A 3 year size requires 2 1-2 yards of 27 inch material.

A Practical Garment

4223. Gingham, madras, flannel and silk are good materials for this design. It has a comfortable collar, and serviceable pockets. It is cut on regulation shirt lines and is easy to develop.

The Pattern is cut in 5 Sizes: 6, 8, 10, 12, and 14 years. A 12 year size requires 2 7-8 yards of 32 inch material.

A Natty Suit For The Little Man

4170. This is a comfortable style, with new and pleasing features. The inserted pockets in the smock will please the "little fellow." The "knickers" too boast of pockets that are large enough to hold many things boys like to keep with them.

The Pattern is cut in 4 Sizes: 2, 3, 4, and 6 years. To make the suit for a 3 year size, will require 3 3-8 yards of 32 inch material. For knickers alone 1 3-8 yds is required.



4170

A Popular Garment

4210. Both the waist and "knickers" in this style are practical and good for development in muslin, long cloth, creper, or flannelette. The Pattern is cut in 5 Sizes: 4, 6, 8, 10, and 12 years. A 6 year size requires 1 3-4 yards of 36 inch material.

Surely he did not expect any return from the birds themselves, for he is a renter on the place and the spot was nearly a mile from any fields he expected to cultivate; doubtless he himself would be bothered to explain; yet in reality he did it because his own Christmas would be more sweet to know that the wild things have one too. This goes to show the effect the coming of the Manger Child, nearly two thousand years ago, is still having in the world, and it bespeaks the truth of the prophecy of a time when the "Lion and the lamb shall lie down together," and the whole world shall know that "God is Love."—A. D.

SOME GOOD RECIPES

Pancakes

1 egg, pinch of salt, 2 ½ cups of buttermilk or sour milk, ½ cup of cream 1 ½ teaspoon soda, flour to make batter.

I find by keeping back 1 cup of liquid and stirring balance a little thicker than desired, that the lumps stir out more easily, then last add your cup of liquid. In answer an inquiry in the January 6th issue.

Being the mother of four children under 7 years I find a flour sack at 5 cents each from our bakery makes a combination, or under waist and bloomers as well as linings for some of their dresses, also dish towels.

Here are drop cookie recipes. I find save heaps of time and a holiday cookie that takes a day to bake and lasts weeks.

Cream Cookies

2 eggs, 2 cups sugar, 2 cups sour cream (thick), 2 teaspoonfuls soda, 4 cups flour, pinch of salt and seasoning, nutmeg or vanilla, drop from dessert spoon.

Orange Cookies

2 cups sugar, pinch of salt, 1 cup of shortening (half butter and half lard) cream together, 1 cup of milk. Grated rind and juice of one orange, 5 cups sifted flour, 1 level teaspoon soda and 2 teaspoonfuls baking powder, rounding full. Drop from dessert spoon and put raisin in top.

Molasses Cookies

½ cup sugar, 1 cup molasses, 2 tablespoonfuls butter, teaspoon ginger and a little cinnamon, 1 teaspoon soda dissolved in ¾ cup hot water. Mix stiff with flour, drop and bake.

Holiday Cookies

1 quart of molasses or 1 pint of strained honey may be used, 1 pint sour cream, 1 pound brown sugar, ½ cup shortening (melt), 1 oz. of cinnamon, ½ oz. cloves, 4 teaspoonfuls soda, ½ pound raisins, ½ pound nutmeats, 1 teaspoon salt and all the flour you can stir in, mix and let stand over night, then roll or cut out either squares or round. For a change one may ice them on top. A prosperous New Year to all.—Mrs. Alice R. Maurer.

PANCAKE RECIPE

1 cup graham flour, 1 cup buckwheat flour, 1 cup white flour, 1 tps salt, 4 level tps baking powder, 1 level tps baking soda, 1 T. syrup or sugar.

Sift together, the buckwheat and white flour, salt and b-powder, add to graham: add slowly, sufficient sweet milk (skimmed) to make batter of proper consistency, then add soda and syrup (or sugar) which have been dissolved together in a little boiling water. A trial or two will determine the quantity of milk required. Water may be substituted, but milk is preferable. The batch may be increased proportionately. This serves five or six people.

Syrup for Pancakes

A good syrup for pancakes is very quickly made by boiling together for a few minutes 1 ½ cups brown sugar and one cup of water.

Starch for "A Reader"

For about one quart of starch, use three level tablespoonfuls starch and dissolve in just sufficient cold water to make creamy, then add water that is actually boiling until starch is clear, stirring as water is slowly added. One teaspoon salt and one-half teaspoon lard, or other white grease should be added. This gives gloss and prevents the iron sticking. Keep covered until ready for use, to prevent the film you speak of. If you are careful to add just the right amount of water and have it always

take care of 5 pigs and 100 chickens besides we have 2 1/4 miles to walk to school. I have 2 sisters and 4 brothers younger than I am. I go to the Hollister school and we have a very good teacher. We are carrying out the Health Crusade at our school and I think it is a wonderful help to make clean and honest boys and girls. I will close for this time hoping all the nieces and nephews have started a good New Year. From your niece—Rosalie M. Dupraw, R. No. 1, Cadillac, Mich.

P. S.—I wish some of the other children would write to me.

Dear Uncle Ned:—I have been reading the letters and enjoy them very much. I am most sixteen. I live on a farm of forty acres. South east of our place is a huckleberry marsh. I have almost two miles to walk to school. We just moved here last month so you see I do not know very many. I get so homesick sometimes I wish I was back where I used to live. But I suppose we have to take things as they come. It is getting late so I will close. I sure would like to hear from some of the cousins. Your niece—Ethel Philo, R. No. 3, Lansing, Michigan.

Dear Uncle Ned:—My father takes the M. B. F., and likes it very much. I am 9 years of age and in the 5th grade at school. I have one-half mile to go to school. My birthday is in June between the 1st and 15th, and to the one who guesses the right date I will write a letter. I have a brother 11 years of age and in the 6th grade at school and I have a baby brother that will be 3 months old the 13th of January. I have dark brown hair and eyes. I weigh 50 pounds and I am 3 feet and 11 inches tall. I suppose you got a lot of presents for Christmas. I got a doll head with brown curly hair and sleeping eyes, a pocket-book, 2 handkerchiefs, a bottle of perfume, 2 strings of beads, a drinking cup and a soap bubbler, a pin cushion, a sack of candy and peanuts and a big sack of Christmas candy. With love from—Beulah Morey, R. No. 3, Wheeler, Michigan.

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 January 6, 1923
Total number claims filed.....1097
Amount involved.....\$20,259.56
Number of claims settled.....650
Amount secured.....\$10,686.56

QUICK WORK

I wish to thank you for the favor you did me in helping to get the money due me from that New York company. I received your letter on the 19th stating that you were writing to them on that date, and on Dec. 25th I received the money which they owed me. Again I wish to thank you.—Mrs. Grant Howard, Osceola County, Michigan.

THANK YOU

I received an answer to the letter I wrote you to the Mercantile Credit Co. Many thanks to you—while I have not received the money, they gave me encouragement so will in

Colds Broken Quickly



IN disagreeable weather always have Hill's handy. Stops Colds in 24 hours—la grippe in 3 days. Standard remedy for two generations. No bad after effects. Safe and dependable. Demand red box bearing Mr. Hill's portrait and signature.

At All Druggists—30 Cents
W. H. HILL COMPANY (A-204) DETROIT, MICH.

return advance my subscription by sending you a dollar check. I am in favor of receiving the paper every two weeks as I think it is more eagerly looked forward to. It is the nicest and most interesting paper I have ever read.—Fred W. Schutt.

SETTLES ON STRENGTH OF GOVERNMENT REPORT

Beg to acknowledge receipt your letter with reference to reliability of H. C. Gawn & Co., Cleveland, Ohio. For your information beg to advise you I settled with them in full on strength of Government Inspection report which was furnished me. I want to thank you for your suggestion and will sure be glad to call again should I need assistance.

WE'LL MEET YOU FARMERS' WEEK AT EAST LANSING

(Continued from page 3)

making the visit of the guests pleasant one.

Entertainment and education will be given in equal portion during the week. Music, moving pictures, pageants, and other entertainment features will be balanced off against the more serious side of the program, which will include educational material on all phases of farmers' problems.

One of the leading features of the week will be the big agricultural parade, to be held at one o'clock Thursday afternoon, February first. More than a mile of livestock and exhibits will pass in review during this pageant.

Special rates on all steam and electric railroads have been granted Farmers' Week visitors. These rates give round-trip tickets from any point in the state to East Lansing for one and one-half times the one way fare.

HISTORICAL BACKGROUND OF MICHIGAN AGRICULTURE

(Continued from page 8)

igan. The Michigan Agricultural College set to work to find out if sugar beets could be grown in Michigan. Sugar beet seed was imported from Europe and was distributed to farmers for trial plantings, where the United States Weather Bureau determined that climatic conditions were favorable. A beet sugar factory was erected at Bay City in 1908 and still other factories were soon opened at Lansing, Owosso, and other points, and another great industry based on agriculture was established in the state, which, at last report, (1920) represents a capital investment of more than \$22,000,000.

The growth of mint on the muck lands in the southwestern counties is quite as old as the state, and has not spread much from this region although it has been demonstrated that mint will grow and yield well of oil as far north as the Lake Superior country. The larger portion of the mint output of the United States is produced in the southwestern portion of Michigan and the northern region of Indian, and in order to stabilize market conditions producers have not been keen for bringing new areas into mint production. The growing of celery and onions has also become important in southwestern Michigan and for the same reason, while a very excellent celery is produced on a small scale near Newberry, in the Upper Peninsula.

(To be continued in a future issue)

THE TRUTH ABOUT HENRY FORD

(Continued from page 6)

to Detroit, but Miss McMillan had returned to England. It was suggested that Mrs. Philip Snowden, wife of a member of Parliament, and at that time lecturing in this country, be placed on the peace committee in place of Miss McMillan. Miss Shelley and Miss Morgan favored the idea of having many telegrams sent the president urging him to undertake the preliminaries of peace. They also wished to arrange a big peace parade in Detroit to attract the attention of the country. Mr. Pipp urged them to abandon all such plans.

"There is nothing to be gained by spectacular efforts," he said, "you wished an audience with the president. It can be arranged. Publicity is altogether inadvisable and cannot help your cause."

(To be continued in Feb. 3rd issue)

Don't be a Victim

—of the cheap or big can baking powders—don't waste your time, your money, your efforts, in preparing bakings and have them ruined through the use of uncertain baking powders.

ALWAYS USE

CALUMET

The Economy BAKING POWDER



BEST BY TEST

because it never varies in leavening strength—because it lasts longer—goes farther—keeps perfectly and is moderate in price—because it is most dependable, most economical.

Its sales are over 150% greater than that of any other brand.

No human hand ever touches it—it is made in the world's most sanitary baking powder factories.

THE WORLD'S GREATEST BAKING POWDER



DEMAND

POLAR BEAR FLOUR

Positively Best Flour Money Can Buy.

A Trial Bag will prove it!

Manufactured by The New Era Milling Co., Arkansas City, Kans.

J. W. HARVEY & SON,

Central States Managers,
MARION, IND.

SWEET WHITE BLOSSOM CLOVER
Unhulled. Have big stock highest quality scarified hulled seed at Special Money-Saving Prices. We specialize on Grass and Field Seeds and quote them at Special Bargain Prices. Write today for FREE SAMPLES, special prices and big seed guide. ALL FREE.
AMERICAN FIELD SEED CO.
Dept. 527 Chicago, Ill.

KITSELMAN FENCE
"I Saved One-Third," says Wm. B. Lee, Stanton, Mich. You, too, can save. We Pay the Freight. Write for Free Catalog of Farm, Foultry, Lawn Fence.
KITSELMAN BROS. Dept. 195 MUNCIE, IND.

WHAT ARE YOU IN THE MARKET FOR ?

USE THIS COUPON

Every reader of M. B. F. will be in need of one or more of the following items this season. Check below the items you are interested in, mail it to us and we will ask dependable manufacturers to send you their literature and lowest prices free and without any obligation on your part.

Automobiles	Dairy Feed	Hog Feeders	Shoes
Auto Tires	Dynamite	Incubators	Stoves
Auto Supplies	Ensilage Cutter	Lumber	Stump Puller
Auto Insurance	Fanning Mill	Lighting Plants	Seeds
Bee Supplies	Fertilizer	Lighting Rods	Sprayers
Berry Baskets	Fur Buyers	Limestone, Pulverized	Silo
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FIFTEEN YEARS OF WOOD LIFE TRAGEDY

(Continued from page 6)

bed even the distant tundras of their life.

In the United States even more than in Canada are we today seeing and feeling the effects of an appalling devastation. My own state of Michigan is an example. The story of its outraged forests and wild life is a tragedy of desecration, of money-lust, of personal selfishness and political incompetence and stupidity. Michigan is a particularly good state to look at in these last days of forest and wild life simply because of the fact that God intended it to be the greatest water, forest and wild life paradise on the American continent. No other state was so completely endowed with all things or so richly stored with possibilities at the beginning. Its wild life and forest resources have been worth billions, and had these natural gifts been harvested instead of slaughtered they would be worth billions today. Yet, in this state, never have we had a man technically trained and educated in conservation matters at the head of our conservation affairs. The present Director of our Conservation Department is a man who has been thirty years in politics. Our Secretary of Conservation is a newspaper man. And only a few days ago the dean of American forestry, Professor Filibert Roth, Professor of Forestry in the University of Michigan, found it necessary to resign from our Conservation Commission because he could no longer fight against the environment which made his life-long experience and technical worth of no practical value at all.

This system is not the fault of an individual or individuals. It is perfectly legitimate for politicians, newspapermen, railroad engineers, lawyers, preachers or candle-stick makers to run the vast natural resources of any state if the people so will. They cannot be held accountable for the fact that they are not technically skilled forestry men or that they have not had the long and intensive training, education, and scientific application of study which every other great corporation on earth would demand of those in charge of its resources. The people themselves are at fault. They alone are to blame for not rising in the power of their vote and bringing about a condition where the very best men that money and science can produce are employed as the guardians and care-takers of our forests and wild life, our lakes and streams. Until that time comes, until every governor and every legislature in every state demand the very highest of skill, training, intelligence and technical ability at the heads of our conservation activities, we must miserably fail.

The tremendous loss which has occurred throughout the United States because of lack of these things is shown by conditions as they exist in my own state Michigan. Because of timber-slaughter and forest fires over one-third of Michigan is virtually bankrupt, paying no more in taxes than the cost of collecting the taxes, unable to build roads and schools, and even unable to provide police protection. Fourteen million acres, or over twenty thousand of our fifty-seven thousand square miles are idle, barren and fire-blasted. In 1890 Michigan was the greatest lumber state in the Union, and the annual value of her lumber products was \$70,000,000. Today Michigan is consuming between two and three times the lumber she produces, and is now one of the thirty wood-importing states in America, and the freight rates and increased cost of her imported timber alone equal the total value of her lumber products in that year of 1890. The hickory for the wheels of her automobiles comes from Arkansas and Mississippi; the oak for her furniture is cut in Louisiana and Tennessee. Michigan does not even supply herself with enough telephone poles and railroad ties, but imports the poles from Idaho and the ties from Virginia.

In spite of the newspaper propaganda which is always sent out in great volumes from the center of political activities, our wild life has gone rapidly with our forests. Of our two thousand miles of inland waters at least fifty percent, or one

thousand square miles, have been robbed and polluted until they are now what is technically known as "barren." Our grayling is utterly extinct. Our trout streams are going swiftly, and are not twenty percent of what they were a few years ago. While energy and money have been expended in importing and propagating the ring-necked pheasant, a semi-domestic fowl that will forever be impossible as a game-bird, our native partridge has been neglected until pot-hunters, if they were allowed to exist today, would starve to death. And while raindeer, an animal that has been domesticated for more than fifteen centuries, have been imported into our northwoods, where they are cared for and fenced and fed like cattle, one of the finest of all game animals, the black bear, is still killed in our state as "vermin."

During the two years of 1919 and 1920 there were 1,442 forest fires in Michigan, and these fires burned over 620,493 acres of forest land or one thousand square miles. At the ridiculously low rate of \$50 an acre this means a total loss of over \$30,000,000 in those two years, or \$10 for every man, woman and child in the state. While our political regime estimates Michigan's forest-fire loss at only \$2,000,000 a year, experts trained in their business have estimated the loss at \$100,000,000 a year. I have split this in two, and estimate it at \$50,000,000.

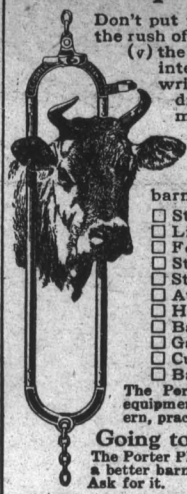
These figures for 1919 and 1920 are tragic enough, but in the year 1921 there were 1,028 forest fires in Michigan, or almost as many as in the preceding two years combined.

I have always hunted, have always loved the woods, have lived in them a great deal of my time. The money which carried me through college I earned at trapping. But it is only when I view my experiences of the past few years that I see the tragedy of today in all its naked horror. With wild life not only going, but almost gone, it seems to me little less than criminal that the people of great commonwealths will still allow politicians to run their conservation affairs. I feel and see the sickening effect of it. A great corporation that builds automobiles would consider it suicidal to place a plumber or a carpenter at its head. A big hotel would not place its management in the hands of a stone-cutter. Yet the people of a state, the mightiest of all corporations, will see a petty politician, or a butcher, or a mechanical engineer in control of all the forest and wild life resources which God has seen fit to give it. To me this is little less than sacrilege. It is a body blow at the Great Giver of Things Himself. It is as senseless as placing a trained forester in command of a ship at sea, or a railroad engineer in charge of an electric light plant. Before success comes to us politics must go. The people of every state must make their governors and their legislatures see that conservation of forests and wild life is not for the hunter and fisherman alone. Trained men, skilled and intelligent in their professions, must replace those who are utterly unable to cope with the tragedy as it exists today. Ten years from now, five years from now, will be too late. And only the people can save us from an utter devastation. Only the people, with their power of the ballot, can put their lakes, their streams, and what wild life and forests they have left into hands capable of caring for them, perpetuating them, and increasing them. Intelligence, skill and technical ability will do these things; politics, vote-getters' appointments, and the ignorance and selfish ambitions that build up political machines will bring still greater ruin.

People must come to an understanding of what conservation means. They must be made to realize that human life is absolutely dependent upon wild life and forests. Without these things we would become extinct as a race. If all the vegetation, all wild life and all forests should disappear tomorrow the human race would become extinct upon the face of the earth within a year. Without wood we would have no agriculture, no manufacture, no commerce. Civilization, as

(Continued on page 26)

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DAIRY and LIVESTOCK

FARMERS LOSE MONEY THRU IMPROPER STOCK SHIPMENTS

LIVESTOCK shippers frequently lose money by shipping improper mixtures of animals to market, an investigation by the United States Department of Agriculture shows.

Many instances of losses due to this cause have come to the department's attention. For example, a cooperative association in Indiana recently shipped a car containing 66 sheep and 6 cattle. The sheep weighed 5,195 pounds and the cattle 5,800 pounds. The total freight charge on the shipment was \$105.60, or at the rate of 95c per 100 pounds.

The actual rates quotable from the point of shipment to point of destination were—sheep 48c and cattle 33c per 100 pounds. The high rate actually charged was due largely to the fact that the 6 cattle included in the shipment made it necessary to apply the cattle minimum weight of 22,000 pounds which may be compared with the sheep minimum of 12,000 and with 10,995 pounds which was the actual of the shipment. Had the cattle been excluded this car could have been forwarded at a total charge of only \$57.60 instead of 105.60 which was actually paid. The charge for shipping the 6 cattle therefore was \$48 which was an increase of 83% over the charge which would have been levied on a straight carload of sheep. Stating it differently the freight charge on the cattle amounted to 83c per 100 pounds.

The important fact to be borne in mind, the department says, is that as a rule where two or more kinds of stock are shipped in the same car the freight for the entire load is based on the highest minimum weight combined with the highest rate. A mixture of cattle and sheep therefore usually takes the cattle minimum weight and the sheep rate.

As a rule take the highest minimum weights, with hogs next, calves next and sheep the lowest. In the case of rates the order is generally reversed. Sheep take the highest rate, hogs and calves the next highest, with cattle generally taking the lowest rate.

In all cases, it is pointed out, the local agent should be consulted regarding minimum weights, foreign rates, freight rates, shrinkage allowances and any other pertinent matters if the shipper desires to forward his stock in the most economical manner.

STEER FEEDING

THE rations for feeding steers should be in most cases be built around the roughage the feeder has on hand. Where steer feeding is carried on extensively, corn silage, clover hay and shock corn are the most popular roughages and form an excellent basis for a good ration. When the gains are made by the steers, cost per pound of gain, the amount of beef produced from a given area and the labor involved in storing and feeding are considered, corn silage, where grown successfully, is recommended as the best available roughage.

The amount of silage that may be fed depends upon the size of the steers and the amount of silage and other roughages available. With steers weighing from 800 to 1,000 pounds, as much as 45 to 50 pounds per day may be fed to advantage at the forepart of the feeding period unless a heavy grain ration is given, in which case the steers would refuse such a heavy feed of silage. From 3 to 6 pounds of clover hay per day is usually fed, as very few feeders favor silage as a sole roughage.

Shock corn is fed extensively in some sections, the claim being made that a better finish is produced than by feeding silage. This no doubt is true, as the steers are allowed to choose the proportions of ears and stalks consumed. As the feeding period advances and the steers become more highly finished, they naturally become particular in what they consume and select more ears and fewer stalks. This produces a good finish, but a heavy grain ration is being consumed, while only a

small portion of the stalks are being utilized. When an abundance of roughage is available, this plan gives good results, but a large amount of the stalks are wasted. If a silo is used, a larger number of cattle could be finished on the same amount of feed.

The amount of concentrates that should be fed depends upon the quality of the roughage, age of the cattle and the finish desired. Although yearlings or short two-year-olds make more economical gains than do older cattle, they require more grain to produce an equal finish. Corn is the best fattening feed, but barley can be used to good advantage. If the steers are fed a heavy grain ration, a protein supplement such as cottonseed meal or linseed oil meal should be added, but if little grain is given and the roughage consists largely of clover or alfalfa hay, no supplement may be needed. With silage in the ration the cottonseed meal is preferred, as it supplies the protein more cheaply per unit. With the roughage, linseed oil meal acts as a conditioner and keeps the digestive system in good working order. Not more than 2.75 pounds of cottonseed meal per 1,000 pounds live weight is recommended. There is no danger from this amount or slightly more, but any great excess, if continued over a long feeding period, is liable to cause slow poisoning and put the steers in an unthrifty condition.

A ration of corn silage, clover hay and cottonseed or oilmeal without any concentrates produces good results and a fairly high finish. At the Michigan Experiment Station in trials conducted during the past winter, steers fed an average of corn silage, 3.93 pounds of clover hay and 1.96 pounds of oilmeal per day gained 2.6 pounds daily per day for the first 59 days. However, if a good finish is desired, more concentrates must be fed during the latter part of the feeding period. Accordingly these steers were given an average of 9.5 pounds of shelled corn per day for the last 84 days, the amount of silage being gradually reduced and the oilmeal increased to 2.25 pounds per day. The average daily gain per steer during this period was 2.22 pounds and for the whole feeding period 2.39 pounds per day.

In all cases hogs should follow steers to utilize the corn voided especially when shelled corn or shock corn is fed.

In the experiments mentioned above, corn silage at \$4.00 per ton, clover hay at \$12.00 per ton, corn at 56 cents per bushel and linseed meal at \$50.00 per ton, the cost per hundred pounds gain, not crediting the gains made by the hogs following the steers, was \$3.11. Crediting the gains made by the hogs, the cost of grains in the steers was \$7.88 per hundredweight.

Many other factors must be considered if steer feeding is to prove successful. Clean, well ventilated quarters should be provided; clean water should be available at all times; all changes in feed, both in quantity and quality, should be made slowly; and the condition of the steers should be watched carefully and their appetite catered to, so that there is less danger of putting them off feed.—W. E. J. Edwards, Animal Husbandry Department, M. A. C.

EARLY MICHIGAN TRAINING

H. R. SMITH, who has judged the beef breeds for many years at the International and other shows, was this year assigned the more difficult task of judging Red polls and has just received from the management of the International Live Stock Exhibition a fine letter of commendation.

Howard was in Michigan last week attending a T. B. Conference at Lansing, and stated that much of his success in cattle judging he attributed to his early training in Michigan. Many of the older residents will remember his father, the late F. Hart Smith, when active with the State Fair had a considerable reputation in picking the right animals to head the line, in our local contests at that time.—G. B. S.



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The tremendous loss which has occurred throughout the United States because of lack of these things is shown by conditions as they exist in my own state Michigan. Because of timber-slaughter and forest fires over one-third of Michigan is virtually bankrupt, paying no more in taxes than the cost of collecting the taxes, unable to build roads and schools, and even unable to provide police protection. Fourteen million acres, or over twenty thousand of our fifty-seven thousand square miles are idle, barren and fire-blasted. In 1890 Michigan was the greatest lumber state in the Union, and the annual value of her lumber products was \$70,000,000. Today Michigan is consuming between two and three times the lumber she produces, and is now one of the thirty wood-importing states in America, and the freight rates and increased cost of her imported timber alone equal the total value of her lumber products in that year of 1890. The hickory comes from Arkansas and Mississippi; the oak for her furniture is cut in Louisiana and Tennessee. Michigan does not even supply herself with enough telephone poles and railroad ties, but imports the poles from Idaho and the ties from Virginia.

In spite of the newspaper propaganda which is always sent out in great volumes from the center of political activities, our wild life has gone rapidly with our forests. Of our two thousand miles of inland waters at least fifty percent, or one

thousand square miles, have been robbed and polluted until they are now what is technically known as "barren." Our grayling is utterly extinct. Our trout streams are going swiftly, and are not twenty percent of what they were a few years ago. While energy and money have been expended in importing and propagating the ring-necked pheasant, a semi-domestic fowl that will forever be impossible as a game-bird, our native partridge has been neglected until pot-hunters, if they were allowed to exist today, would starve to death. And while raindeer, an animal that has been domesticated for more than fifteen centuries, have been imported into our northwoods, where they are cared for and fenced and fed like cattle, one of the finest of all game animals, the black bear, is still killed in our state as "vermin."

During the two years of 1919 and 1920 there were 1,442 forest fires in Michigan, and these fires burned over 620,493 acres of forest land or one thousand square miles. At the ridiculously low rate of \$50 an acre this means a total loss of over \$30,000,000 in those two years, or \$10 for every man, woman and child in the state. While our political regime estimates Michigan's forest-fire loss at only \$2,000,000 a year, experts trained in their business have estimated the loss at \$100,000,000 a year. I have split this in two, and estimate it at \$50,000,000.

These figures for 1919 and 1920 are tragic enough, but in the year 1921 there were 1,028 forest fires in Michigan, or almost as many as in the preceding two years combined.

I have always hunted, have always loved the woods, have lived in them a great deal of my time. The money which carried me through college I earned at trapping. But it is only when I view my experiences of the past few years that I see the tragedy of today in all its naked horror. With wild life not only going, but almost gone, it seems to me little less than criminal that the people of great commonwealths will still allow politicians to run their conservation affairs. I feel and see the sickening effect of it. A great corporation that builds automobiles would consider it suicidal to place a plumber or a carpenter at its head. A big hotel would not place its management in the hands of a stone-cutter. Yet the people of a state, the mightiest of all corporations, will see a petty politician, or a butcher, or a mechanical engineer in control of all the forest and wild life resources which God has seen fit to give it. To me this is little less than sacrilege. It is a body blow at the Great Giver of Things Himself. It is as senseless as placing a trained forester in command of a ship at sea, or a railroad engineer in charge of an electric light plant. Before success comes to us politics must go. The people of every state must make their governors and their legislatures see that conservation of forests and wild life is not for the hunter and fisherman alone. Trained men, skilled and intelligent in their professions, must replace those who are utterly unable to cope with the tragedy as it exists today. Ten years from now, five years from now, will be too late. And only the people can save us from an utter devastation. Only the people, with their power of the ballot, can put their lakes, their streams, and what wild life and forests they have left into hands capable of caring for them, perpetuating them, and increasing them. Intelligence, skill and technical ability will do these things; politics, vote-getters' appointments, and the ignorance and selfish ambitions that build up political machines will bring still greater ruin.

People must come to an understanding of what conservation means. They must be made to realize that human life is absolutely dependent upon wild life and forests. Without these things we would become extinct as a race. If all the vegetation, all wild life and all forests should disappear tomorrow the human race would become extinct upon the face of the earth within a year. Without wood we would have no agriculture, no manufacture, no commerce. Civilization, as

(Continued on page 26)

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If you have a few good hens or cockerels that you don't need you can sell them through an ad in M. B. F.

DAIRY and LIVESTOCK

FARMERS LOSE MONEY THRU IMPROPER STOCK SHIPMENTS

LIVESTOCK shippers frequently lose money by shipping improper mixtures of animals to market, an investigation by the United States Department of Agriculture shows.

Many instances of losses due to this cause have come to the department's attention. For example, a cooperative association in Indiana recently shipped a car containing 66 sheep and 6 cattle. The sheep weighed 5,195 pounds and the cattle 5,800 pounds. The total freight charge on the shipment was \$105.60, or at the rate of 95c per 100 pounds.

The actual rates quotable from the point of shipment to point of destination were sheep 48c and cattle 38c per 100 pounds. The high rate actually charged was due largely to the fact that the 6 cattle included in the shipment made it necessary to apply the cattle minimum weight of 22,000 pounds which may be compared with the sheep minimum of 12,000 and with 10,995 pounds which was the actual of the shipment. Had the cattle been excluded this car could have been forwarded at a total charge of only \$57.60 instead of 105.60 which was actually paid. The charge for shipping the 6 cattle therefore was \$48 which was an increase of 83% over the charge which would have been levied on a straight carload of sheep. Stating differently the freight charge on the cattle amounted to 83c per 100 pounds.

The important fact to be borne in mind, the department says, is that as a rule where two or more kinds of stock are shipped in the same car the freight for the entire load is based on the highest minimum weight combined with the highest rate. A mixture of cattle and sheep therefore usually takes the cattle minimum weight and the sheep rate. As a rule take the highest minimum weights, with hogs next, calves next and sheep the lowest. In the case of rates the order is generally reversed. Sheep take the highest rate, hogs and calves the next highest, with cattle generally taking the lowest rate.

In all cases, it is pointed out, the local agent should be consulted regarding minimum weights, foreign rates, freight rates, shrinkage allowances and any other pertinent matters if the shipper desires to forward his stock in the most economical manner.

STEER FEEDING

THE rations for feeding steers should be in most cases be built around the roughage the feeder has on hand. Where steer feeding is carried on extensively, corn silage, clover hay and shock corn are the most popular roughages and form an excellent basis for a good ration. When the gains are made by the steers, cost per pound of gain, the amount of beef produced from a given area and the labor involved in storing and feeding are considered, corn silage, where grown successfully, is recommended as the best available roughage.

The amount of silage that may be fed depends upon the size of the steers and the amount of silage and other roughages available. With steers weighing from 800 to 1,000 pounds, as much as 45 to 50 pounds per day may be fed to advantage at the forepart of the feeding period unless a heavy grain ration is given, in which case the steers would refuse such a heavy feed of silage. From 3 to 6 pounds of clover hay per day is usually fed, as very few feeders favor silage as a sole roughage.

Shock corn is fed extensively in some sections, the claim being made that a better finish is produced than by feeding silage. This no doubt is true, as the steers are allowed to choose the proportions of ears and stalks consumed. As the feeding period advances and the steers become more highly finished, they naturally become particular in what they consume and select more ears and fewer stalks. This produces a good finish, but a heavy grain ration is being consumed, while only a

small portion of the stalks are being utilized. When an abundance of roughage is available, this plan gives good results, but a large amount of the stalks are wasted. If a silo is used, a larger number of cattle could be finished on the same amount of feed.

The amount of concentrates that should be fed depends upon the quality of the roughage, age of the cattle and the finish desired. Although yearlings or short two-year-olds make more economical gains than do older cattle, they require more grain to produce an equal finish. Corn is the best fattening feed, but barley can be used to good advantage. If the steers are fed a heavy grain ration, a protein supplement such as cottonseed meal or linseed oil meal should be added, but if little grain is given and the roughage consists largely of clover or alfalfa hay, no supplement may be needed. With silage in the ration the cottonseed meal is preferred, as it supplies the protein more cheaply per unit. With the roughage, linseed oil meal acts as a conditioner and keeps the digestive system in good working order. Not more than 2.75 pounds of cottonseed meal per 1,000 pounds live weight is recommended. There is no danger from this amount or slightly more, but any great excess, if continued over a long feeding period, is liable to cause slow poisoning and put the steers in an unthrifty condition.

A ration of corn silage, clover hay and cottonseed or oilmeal without any concentrates produces good results and a fairly high finish. At the Michigan Experiment Station in trials conducted during the past winter, steers fed an average of corn silage, 3.93 pounds of clover hay and 1.96 pounds of oilmeal per day gained 2.6 pounds daily per day for the first 59 days. However, if a good finish is desired, more concentrates must be fed during the latter part of the feeding period. Accordingly these steers were given an average of 9.5 pounds of shelled corn per day for the last 84 days, the amount of silage being gradually reduced and the oilmeal increased to 2.25 pounds per day. The average daily gain per steer during this period was 2.22 pounds and for the whole feeding period 2.39 pounds per day.

In all cases hogs should follow steers to utilize the corn voided especially when shelled corn or shock corn is fed.

In the experiments mentioned above, the silage at \$4.00 per ton, clover hay at \$2.00 per ton, corn at 56 cents per bushel and linseed meal at \$50.00 per ton, the cost per hundred pounds gain, not crediting the gains made by the hogs following the steers, was \$3.11. Crediting the gains made by the hogs, the cost of grains in the steers was \$7.88 per hundredweight.

Many other factors must be considered if steer feeding is to prove successful. Clean, well ventilated quarters should be provided; clean water should be available at all times; all changes in feed, both in quantity and quality, should be made slowly; and the condition of the steers should be watched carefully and their appetite catered to, so that there is less danger of putting them off feed.—W. E. J. Edwards, Animal Husbandry Department, M. A. C.

EARLY MICHIGAN TRAINING PAID

H. R. SMITH, who has judged the beef breeds for many years at the International and other shows, was this year assigned the more difficult task of judging Red polls and has just received from the management of the International Live Stock Exhibition a fine letter of commendation.

Howard was in Michigan last week attending a T. B. Conference at Lansing, and stated that much of his success in cattle judging he attributed to his early training in Michigan. Many of the older residents will remember his father, the late F. Hart Smith, when active with the State Fair had a considerable reputation in picking the right animals to head the line, in our local contests at that time.—G. B. S.



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Don't take anyone's word for it that KOW KARE definitely increases the milk yield. Actual proof is too easy to secure.

Make a simple test — and make it now, so that you may benefit all winter and spring by what it proves. Select a part of your herd — even one cow — and place in her feed morning and evening, for just one week out of the month, a tablespoonful of KOW KARE. If you keep accurate production records, you will be surprised at the increased yield, and at the surprisingly low cost of the treatment.

The reason is simple. The vigor of the cow's digestive and milk-making organs "runs down" during the winter months when green pasture is not available. KOW KARE has the medicinal properties to keep these organs toned up and working at summer capacity.

It is just this building-up of the genital and digestive functions that makes KOW KARE so valuable in treating the diseases which originate in these very organs, such as Abortion, Retained Afterbirth, Barrenness, Scours, Bunches, Milk Fever, etc. No medicine shelf is complete without this nationally-used cow remedy.

KOW KARE is sold by feed dealers, druggists, general stores; large size \$1.25; medium size 6c. If your dealer is not supplied we will send postpaid on receipt of price. Our valuable book, "The Home Cow Doctor," free.

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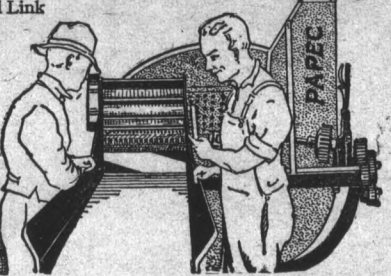
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Advertisements inserted under this heading for reputable breeders of Live Stock at special low rates to encourage the growing of pure-breds on the farms of our readers. Our advertising rate is Thirty Cents (30c) per agate line per insertion. Fourteen agate lines to the column inch or \$4.20 per inch, less 2c for each line 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

- Jan. 23—Shorthorns and O. I. C.'s. Claxton Brothers & Diecks, Swartz Creek, Mich.
Jan. 24—Holsteins, Leon Henny, Lake Odessa, Mich.
Feb. 1—Poland Chinas, Doris Hovey, Akron, Mich.
Feb. 6—Poland Chinas, Shorthorn, Percherons, M. Hicks & Sons, Williams-son, Mich.
Feb. 9—Durocs, J. C. Barney, Coldwater, Mich.
Feb. 17—Poland Chinas, Witt Bros., Adrian, Mich.
Feb. 27—Poland Chinas, Mygrants, St. Johns, Mich.
Feb. 28—Poland Chinas, Charles Wetzel & Sons, Ithaca, Mich.
Mar. 1—Poland Chinas, Archie Ward, Breckenridge, Mich.
Mar. 8—Chester Whites, Alexander & Bodimer, Vassar, Mich.
Mar. 21—Aberdeen-Angus, Russell Bros., Merrill, Mich.

CATTLE

HOLSTEIN-FRIESIAN

52 LB. SIRE—30 LB. DAM—HERE'S A BULL bargain that will be snapped up quick. Born Nov. 3rd, 1921, ready for light service, nicely marked, more white than black.

His dam, a great grand-daughter of King Segis and Pontiac Kordyke, was 2nd Prize Junior 4 yr. old in both 7 and 30 day divisions, State of Michigan in 1918; her records being 30.79 lbs. butter and 653.10 lbs. milk in 7 days and 124.21 lbs. butter and 2779.90 lbs. milk in 30 days.

His 32 lb. sire is by a son of Pontiac De Nilander, a 35.43 lb. Michigan champion. The 32 lb. dam of his sire is also a 2nd Prize Michigan cow in the Senior 4 yr. old 7 day division in 1918 and her dam a 29.43 lb. cow.

First check for \$250.00 gets him f. o. b. White Pigeon, Mich. Pedigree and photo on request. ALBERT G. WADE, 130 N. Wells Street, Chicago, Ill.

FOR SALE—REG. HOLSTEIN BULLS FROM A. R. O. dams ready for service. WM. GRIFFIN, R. 5, Howell, Mich.

FOR SALE—HOLSTEIN BULL CALF, 8 weeks old, Dam 28.91 lbs. butter, sire 33 lbs. with 1,100 lb. yearly record. Price \$300.00 or will exchange for suitable female. COOK BROS., Fowlerville, Mich.

OCT. CLEARANCE SALE. WE ARE OFFERING 20 heifers and bulls. Heavy producing dams. Sire has 7 dams averaging nearly 1,100 lbs. on yearly test. Free from T. B. \$50.00 and up. WOLVERINE DAIRY FARM, Gladwin, Mich. Prop.—H. G. Booth

FOR SALE—SEVERAL REGISTERED HOLSTEIN cows, bred to my Rag Apple sire. Tuberculin tested. Geo. H. Schlader, R. 2, Freeland, Mich.

SHORTHORNS

RICHLAND SHORTHORNS
We offer one red, low down, thick bull calf fifteen months old, also one roan calf fifteen months old. A bargain if taken at once. Also a few young cows with calves at foot.

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A POLLED SHORTHORN HERD BULL 2 years old, Scotch Orange blossom Family. Fit to head any herd. Younger ones for sale. L. C. KELLY & SON, Plymouth, Mich.

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FOR SALE—SHORTHORN BULL CALF, ROAN 9 months. Of herd of Joe Murray & Son. MRS. JOE MURRAY, R. 2, Brown City, Mich.

DURHAMS

FOR SALE—FIVE REGISTERED DURHAM bulls from ten months to one year old. I have also a few female Durhams for sale. HENRY J. LYNCH, Mayville, Tuscola Co., Mich.

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

FOR SALE—SIX YOUNG ABERDEEN-ANGUS cows and heifers. Well bred, good individuals. Price \$300.00 F. O. B. Mich. GEO. HATHAWAY & SON, Ovid, Mich.

SPECIAL PRICE ON BULLS, RANGING IN age from 8 to 11 months, until Jan. 1st, 1923. RUSSELL BROS., Merrill, Mich.

VETERINARY DEPARTMENT

EMPLOY GOOD VETERINARIAN

We have a five year old cow. About four weeks after freshening her one teat became bloody, apparently there was no fever. It was like that for about a week and then we thought she was all right. About two days ago went bad again. Under these conditions could we beef her now if not cured.—V. H., Beulah, Mich.

—The cow in question is suffering a persistent corpus luteum in the ovary. If this is dislodged by a veterinarian who has had experience in the treatment of the reproductive organs of cattle it is quite probable that the cow will come in heat.—John P. Hutton, Associate Prof. of Surg. and Med., M. A. C.

COW HAS MASTITIS

I have a four year old heifer that freshened in April, 1921. She came in heat twice in the following August and was served by a bull but did not get with calf and has not come in heat since. Cow is fat and in good health and not giving milk. What can I do for her to bring her in heat?—J. D., Tyre, Mich.

—It is quite probable that there is from mastitis. It would be all right to beef her if she has not elevation of body temperature and there are no large abscesses in the udder.—John P. Hutton, Assoc. Prof. of Surg. and Med., M. A. C.

FIFTEEN YEARS OF WOOD LIFE TRAGEDY

(Continued from page 24)

we know it, would come to an end. In the United States today three billion dollars are invested in manufacturing plants where the raw material is wood. Fourteen million people, or one-eighth of the total population of the country, are dependent upon these wood-working plants for their livelihoods. Yet within the last five years seven thousand sawmills have been junked in this country because of lack of material.

The hour for action is not ahead of us. It is here. Tomorrow will be too late. If every governor in every state realized this today there would be a wholesale resignation of incompetents throughout the land, and their replacement by men who are technically and professionally fitted. Conservation and propagation is a science. It is a life and death problem confronting a hundred and twenty million people in the United States. It is not a trivial matter to be juggled in the hands of politicians, or to be guided happen-chance by lucky appointees chosen from any and every walk of life. It is a problem for broad and intelligent minds technically and professionally prepared for the gigantic work in hand—the very men who are held back, kept out, and seldom employed. And there seems to me but one inference. Such men, the very biggest that can be secured for the work, will not prostitute their ability, their training and their profession by seeking political influence. They cannot swing counties or sections of states. Such men are employed in our colleges and our universities. Upon them we depend for the education of our children and the advancement of science. They have forgotten more about real conservation than the conservation departments of all our states will ever know. Yet governors seldom appoint them, legislatures rarely employ them. Why?

BACK TO GOOD OLD MICHIGAN

As I am returning to Grand Haven, Michigan, (Good Old Michigan) you can send the next and following copies of M. B. F., to that address and oblige. I enjoy the paper and am disappointed if I miss a copy.

While I am not engaged in active farming my heart is in that work and as Gladstone said early in his political life that farming is one of the foremost foundations of any commonwealth I like to keep informed of its progress, for it is making progress now as at no other time in history. Thanking you, I remain, M. A. Connor, old address Salt Lake City, Utah, new address, Grand Haven, Michigan.

Child of eight bitten by a dog—explanation is animal was "antagonized"—Entertainment Benefits Church.

GUERNSEYS

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

GUERNSEY BULL 1½ YEARS OLD, PURE and dam A. R. Typy, robust and well bred, 7-8 blood of Norman Missaukee Red Nose. Price \$125. Accredited herd. A. M. SMITH, Lake City, Mich.

JERSEYS

JERSEY BREEDERS ATTENTION!

We offer several yearling bulls, ready for service out of a Silver Medal Sire and R. O. M. Dams. Good looking individuals, and priced to sell. Federal accredited herd. Samuel Odell HIGHLAND FARM, Adolph Heege, Shelby, Mich. Farm Supt.

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

FOR SALE—YEARLING JERSEY BULLS Shoppe 19th Tormentor breeding. J. E. MORRIS, Farmington, Mich.

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FOR SALE—REGISTERED AYRSHIRE bulls and bull calves, heifers and heifer calves. Also some choice cows. FINDLAY BROS., R. 5, Vassar, Mich.

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

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FOR SALE—REGISTERED BROWN SWISS heifers and cows, also one bull. Herd federal accredited. ELMWOOD FARMS, Sebawaing, Mich.

SWINE

DUROCS

L. A. Burhans, R. 1, Lyons, Mich., has

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February 12, 1923

45 Bred Sows, bred to Wolverine Sensation and Wolverine Decoration. Write for Catalogue

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PEACH HILL FARM offers choice weanling Duroc pigs, either sex. Priced very reasonable. Write us. INWOOD BROS., Romeo, Mich.

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

REGISTERED DUROC JERSEY PIGS, AUGUST and September. Brookwater stock. Sire Schabros Top. Colonel. Dam Schabros Wonder Oriones. ORLA WISE, So. Lyons, Mich.

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in lots of 50 or more, black faced, from 1 to 4 yrs. old, no broken mouths, in good condition, bred to Shropshire and Oxford rams to lamb May first. Located 22 miles S. W. of Detroit on Detroit and Toledo electric and Dixie Highway. Telegraph address, Rockwood. ALMOND B. CHAPMAN, So. Rockwood, Mich.

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32 HEAD HOLSTEINS (Tested) 17 fresh or to be fresh. Many with A. R. O. record up to 27 lbs.

One Bull, a son of King Flint, out of a cow with a record of 927 lbs. of butter in one year.

Herd on accredited list for tuberculosis. Certificate of health accompanies each animal.

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Wednesday, January 24th, 1923, Starting at 11 A. M.

Free Lunch and Transportation from Trains

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Poultry for Profit

BLACKHEAD OF POULTRY

INFECTIONOUS entero-hepatitis is a communicable disease of turkeys and chickens characterized by an inflammation of the intestines, mainly the ceca (enteritis), and the liver (hepatitis). It is commonly called blackhead, due to the fact that a number of the affected birds show a bluish or purplish discoloration of the comb, wattles and skin of the head. This results from a lack of oxygenation of the blood and may accompany any disease which has a tendency to interfere with the circulation. A considerable number of fowls suffering from infectious entero-hepatitis fails to show this symptom. It should, therefore, be evident that the mere presence or absence of 'blackhead' does not mean so very much to the diagnostician.

Young turkeys from one month to one year of age are most susceptible to this disease. Older turkeys and chickens show a higher degree of resistance. Chickens or turkeys which have recovered from an attack of infectious entero-hepatitis may become carriers of the infection.

This disease is caused by a protozoan microparasite called *Histomonas meleagridis*. Diseased flocks constitute the main source of infection. Droppings of sick birds or carriers contain the organism, it has also recently been shown that eggs of the intestinal worm of poultry called *Heterakis papillosa* may harbor the *Histomonas meleagridis*, a fact which will account for the persistence of the infection in contaminated soil. Infectious entero-hepatitis is most commonly spread by introducing diseased birds or carriers into healthy flocks. Persons, birds, rodents or other animals may also carry the infection from place to place mechanically.

Symptoms

Although the symptoms may vary in different outbreaks the following signs of disease are usually noticeable: Droppiness, ruffled feathers, slow movements, weakness, lack of appetite, yellow to yellowish green diarrhea, darkening of the comb, wattles and skin of the head, and in protracted cases emaciation. Death may occur as early as the third day after the first appearance of the symptoms. In chronic cases it may take three to four weeks before the disease results fatally. The mortality ranges from 10 to 90 per cent of the flock, depending upon the amount of exposure and to the age of the fowls.

The most common pathological changes consist of thickening and ulceration of the walls of the ceca (blind pouches) and spots on the liver. These spots vary in size and color at times present a sunken appearance. In general it may be said that they are gray and tinged with yellow, green or brown. In some cases no lesions appear in the liver. One case has been reported in which the primary lesion was found in the proventriculus. Secondary lesions appeared on the serous (outside) surfaces of adjacent organs while the ceca were normal.

A person familiar with entero-hepatitis will in most cases be able to diagnose the disease by its history, symptoms and lesions. However, it may at times be necessary to submit specimens for laboratory diagnosis. In such cases one should not make the mistake of sending the head of a diseased bird because it would in no way aid the diagnostician. If the laboratory is fairly close at hand the whole bird should be submitted, otherwise the ceca and liver may be sent in suitable containers.

Treatment

Ipecac, sulphur, triplesulpho-carbolates and catechu have been used as remedies against entero-hepatitis. The two former drugs have recently been proved worthless by carefully conducted experiments. Some people who have used triplesulpho-carbolates (1 tablet to each quart of drinking water) claim that affected fowls are greatly benefitted by this remedy. The main objection to this

treatment seems to be the high price of the drug. Crude catechu given in the drinking water is inexpensive and convenient to apply. Those who have tried this remedy claim that excellent results can be obtained by giving one teaspoonful of powdered crude catechu to each gallon of drinking water, keeping this solution before the flock as long as the outbreak lasts. This dosage is for adult turkeys. In order to make the treatment more effective one should prepare the flock by feeding sparingly for one day. The following morning give 1 to 5 teaspoonfuls of epsom salts to each ten fowls (dose depending on age and size of birds) in wet mash. The amount of mash be such that it will be cleaned up at one meal. The following afternoon put catechu in the drinking water. As catechu has a constipating effect it is advisable to give epsom salts from time to time to assure proper elimination. In this connection it may be well to warn against the use of drugs in order to "keep the flock well." A long continued use of medicines will invariably reduce the resistance of the fowls and will pave the way for diseases rather than prevent them. Perfect health is the result of good and sound parentage plus the regular application of the principles of hygiene and sanitation in feeding and housing.

Prevention

To rid soil of contamination with *Histomonas meleagridis* is exceedingly difficult especially if the fowls have been allowed to range on large fields. It is definitely known that the infection will remain in the soil for many years without losing its disease-producing power. On this account turkey raising has become unprofitable in certain parts of the United States. Successful prevention must therefore begin with clean premises and clean stock. Turkeys or chickens should never be introduced from infected flocks. If there is any doubt as to the absence of black-head infection in the flocks from which birds have been taken it is advisable to keep them confined in isolation quarters for at least one month before turning them loose. By doing this it is possible to detect any disease which might be present and to avoid the infection of clean premises and healthy fowls. Eggs bought for hatching should be washed with 70 to 80 per cent alcohol as an additional safety measure. The *Histomonas meleagridis* may be present on the shells. In view of the fact that infection may be introduced by means of mechanical carriers one should give this possibility due attention.

If the disease made its appearance on a farm all visibly affected should be preterably killed and burned. The houses should be cleaned, the litter burned and the walls, floors, roosts, feeding and drinking utensils should be disinfected by a liberal application of a 3 per cent solution of compound solution of cresol or a similar coal-tar product. This disinfection of the soil of run-ways and ranges is very difficult and the most radical efforts in this direction may result in disappointment. If turkey-raising is attempted on infected premises it is best to do so in enclosed yards in order to limit the source of infection and permit frequent disinfection. Under this system it is also possible to move the flock from one yard to another which will also aid in minimizing the amount of exposure, provided the evacuated yards are cleaned and disinfected every time the flock is moved. Stagnant pools of water must never be allowed on any poultry farm. If affected birds are to be held for treatment they should be kept apart from the ones which still appear to be well, and there may be some question as to the advisability of ever turning them loose among the flock again.—H. J. Stephenson, Bacteriological Section, M. A. C.

Keep the M. B. F. coming. See page 25.

Get Winter Eggs!

See to it that there is song and cackle, scratch and action, going on in your poultry yard.

That's when the eggs come.

Feed

Dr. Hess Poultry

PAN-A-CE-A

See them get busy. It gives hens pep.

Nux Vomica is what does it—that greatest of all nerve tonics. A Pan-a-ce-a hen can't hold still. It's her good feeling that makes her hop around.

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A Pan-a-ce-a hen is always a hungry hen—an industrious hen. She gets off the roost winter mornings, ready to scratch for her breakfast.

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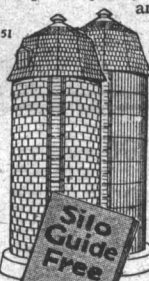
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140-Egg Size—Guaranteed—has double walls, copper tank, full-size nursery, automatic regulation thermometer held so that chicks cannot break it when hatching. Detroit Brooders, too. Double walled, hot water heated. Write for special low price on both machines. Detroit Incubator Co. FREIGHT PRE-PAID Dept. 10 Merritt St., Detroit, Mich.

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Tom Barron strain. White and Barred Plymouth Rocks, S. C. R. I. Reds, Buff Orpingtons. All pure bred from selected stock. Live arrival guaranteed. Postage paid. We do custom hatching.
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Kept on free range. Carefully fed and cared for to insure the best of health and vigor.
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 Write for prices on 1,000 or more.
EXTRA SELECT from Certified Flocks, \$2 per hundred higher.
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 Pedigreed Chicks from flocks headed by males bred by Mich. Ag. College from trap-nested hens of 200 to 300 egg record.
Leghorns, 25, \$5.50; 50, \$10; 100, \$20. Rocks and Reds, 25, \$6.75; 50, \$12.75; 100, \$25. Utility Chicks from selected, free range, flocks, pure-bred, heavy egg strain hens. Great value in Medium Priced Chicks. White Leghorns, 25, \$4; 50, \$7.50; 100, \$15; 500, \$70; 1,000, \$135. Barred Rocks and Reds, 25, \$5; 50, \$9; 100, \$18; 500, \$88.
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From Hogan tested, well-kept and housed heavy laying flocks
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Guaranteed Michigan Bred and Hatched

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 1,000 Orders at 500 rate.
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Selected Hogan Tested Flocks. Postpaid, full live delivery guaranteed. Buff Orpingtons, Wn. and Sil. Wyandottes, 50, \$9.25; 100, \$18. Barred and Wn. Rocks, S. and C. Reds, Minorcas, 50, \$8.25; 100, \$16. Anconas and Heavy Breeds, 50, \$7.25; 100, \$14. Wn. Br. and Buff Leghorns, 50, \$7; 100, \$13. Mixed, all varieties, \$11 per 100 straight. On 500, 5% off; 1,000 10% off. Ready February 26th. Free Catalog. Member I. B. C. A.
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GUARANTEED. From Hogan tested, free range stock. Our plant is modern 65 acre poultry farm. 10 years careful breeding for heavy egg production. Winners at leading shows. Big, strong, vigorous, well-hatched chicks at following prices: **WHITE LEGHORNS, CERTIFIED, 50, \$8.50; 100, \$16; 500, \$77.50. ANCONAS, CERTIFIED, 50, \$9; 100, \$17; 500, \$82.50. WHITE and BROWN LEGHORNS, SELECT, 50, \$7; 100, \$13.50; 500, \$65. ANCONAS, SELECT, 50, \$7.50; 100, \$14.50; 500, \$70.** Postpaid to your door and 100% live delivery guaranteed. Order direct from this ad, early and get them when you want them. Also breeding stock and special mating Chicks. Get Our Catalog. Reference 2 Banks. **TOWNLINE POULTRY FARM, Box 27, Zeeland, Mich.**

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Full 100% live arrival guaranteed. Postpaid. Personally inspected and hatched from STATE INSPECTED Flocks. **PURE TOM BARRON STRAIN WHITE LEGHORNS, 50 \$8.50; 100, \$16; 500, \$77.50; 1,000, \$150. HEAVY LAYING BROWN LEGHORNS, 50, \$8; 100, \$15; 500, \$72.50; 1,000, \$140. SELECT ANCONAS, 50, \$9; 100, \$17; 500, \$82.50; 1,000, \$160.**

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The Chicks that I sell are produced under my personal supervision in a good, modernly equipped hatchery which is kept in best possible condition. The parent stock is carefully selected and of best heavy laying strains, kept on free range, well-housed and handled. Free from disease and properly fed. This enables me to produce strong, healthy Chicks which will mean PROFIT to my customers. **PRICES: WHITE, BROWN and BUFF LEGHORNS, 50, \$7; 100, \$13; 500, \$62.50. BARRED ROCKS, R. and S. C. REDS and ANCONAS, 50, \$8; 100, \$15; 500, \$72.50. WHITE and BUFF ROCKS, WHITE WYANDOTTES, and S. MINORCAS, 50, \$8.50; 100, \$16; 500, \$77.50. WHITE and BUFF ORPINGTONS, 50, \$9; 100, \$18; 500, \$82.50. I guarantee full live delivery by prepaid post. Get your order in now and I will ship when you want them. Bank Reference. Catalog Free. **H. B. TIPPIN, Box E, Findlay, Ohio—Member I. B. C. A.****

ADVANTAGES IN BUYING CHICKS READY HATCHED

It is estimated that last season (Spring of 1922) fully ten per cent of the chicks produced in the United States were hatched and sold right from the incubators by the mammoth hatcheries.

In northern Ohio are most plentiful and where they have been longest in operation the big majority of the farmers now buy their chicks from the hatcheries, having found this method is much more economical than trying to produce them at home by the old methods and has other advantages besides that of economy. Very few, if any, of these farmers have gone back to the old methods after once trying this way of supplying the needed chicks each spring.

To handle these chicks to the best advantage the only equipment needed is a suitable small house and a colony brooder stove. For 500 or less chicks a house 10x12 or 10x14 feet is required. This should be just high enough to allow the attendant to move about in it comfortably and should have a good tight floor. Many of these houses are mounted on runners, simply 2x4 or 2x6 timbers set up edgewise, and they may then readily be moved about from place to place as desired. The first cost of the 2 or 25 brood coops required to hen brood 400 or 500 chicks will more than cover the cost of such a house and the stove to go in it. Frequently there is a small building already at hand which may be converted into a very suitable brooder house.

When the attempt is made to produce the crop of chicks by the old method there is a great waste of time in setting and caring for a lot of hens, and later on a lot of small broods of chicks. Besides, the time of the hens throughout the hatching season is wasted, since they might just as well be producing eggs for the market during all this time. These eggs will go part way toward paying for the chicks. When the chicks are purchased they are all one age and one size throughout the growing season; also all one color if one variety is purchased and they will be nearly alike in feeding requirements. If the chicks are produced by the old methods they will be of many different ages and sizes, and frequently at the end of the hatching season the farmer's wife has not succeeded in getting nearly as many chicks as she had planned to have.

These chicks are shipped to the buyers as soon as they are nicely dried off in the incubators. They are mailed in boxes made especially for this purpose, and go safely 1,000 to 1,500 miles.

One of the greatest advantages, however, in buying chicks is the fact that such a purchase direct from a good hatchery enables the farmer to switch in one season and at practically no expense from a flock of mongrels, mixed breeds or an unsatisfactory flock of pure bred to a flock of good pure bred fowls or pullets, all one age, one size, one color and one in food requirements throughout the season. If a flock of 200 layers is desired, it is advisable to buy 500 chicks at one time. As a rule, one-half or more are males, and, naturally, there may be some loss before maturity.

If these chicks are properly fed and cared for, there need be but little loss. We have known 500 chicks to be brought to maturity with a loss of only 20, and these were lost largely through accident.

As soon as the combs on the cockerels begin to show growth it is well to separate them from the pullets, and feed quite liberally. At ten or twelve weeks old these cockerels will be ready for the market and will bring in more actual cash than was paid for the entire bunch of chicks when purchased. Then also it will likely be advisable to dispose of all the old hen stock on the place to make room for the flock of pure bred pullets. This will mean putting the 200 old hens on the market, which will be another very considerable source of revenue.

We would sum up some of the advantages and money returns on the purchase of 500 chicks as follows:—

First the saving of the time of the hens required to hatch and brood that number of chicks. Allowing 8 live chicks from each setting, it will require over 60 hens three weeks

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LEGHORNS

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RHODE ISLAND REDS. TOMPKINS STRAIN Both combs. Stock for sale after September 15th.
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BOURBON RED TURKEYS UNRELATED STOCK
 Eggs in season.
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MICHIGAN'S BEST GIANT BRONZE TURKEYS Large, vigorous birds of splendid color from world's best strains. Unrelated stock furnished.
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MAMMOTH BRONZE TURKEYS. START right by buying strong, vigorous, pure bred stock. Write for prices.
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PURE MAMMOTH BRONZE TURKEYS. VIGOROUS and healthy. Toms \$9.00, hens \$6.00.
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FOR SALE—MAMMOTH BRONZE TURKEYS Beautiful birds.
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WHITE HOLLAND TURKEYS The farmers friend. No crop failure when you raise them as they eat all insects that destroy crops. Toms \$15.00. Hens \$10.00. Trios \$30.00.
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PURE BRED W. H. TOM TURKEYS. FOR sale, \$10 each. One last year's bird, weight 28 lb., \$15.
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FOR SALE—WHITE HOLLAND TOMS \$8. Satisfaction guaranteed.
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ORDERS ENTERED NOW AT \$1.50 PER setting for eggs from the largest and whitest Mammoth Pekin Ducks raised in Michigan. Deposit required for sure delivery. A few choice drakes yet to spare.
Cedar Bend Farm, Okemos, Mich.

MAMMOTH PEKIN DUCKS AND R. C. RHODE Island Reds. Cockerels \$2 each.
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HIGHEST PRICES PAID FOR LIVE AND Dressed Poultry, Veal, Eggs, Rabbits. A square deal always. **G. E. McNEILL & CO., 325 W. 50. Water St., Chicago, Ill.**

HAVE YOU POULTRY FOR SALE?

AN AD IN THE MICHIGAN BUSINESS FARMER WILL SELL IT!

A New Discovery Makes Hens Lay

Any poultry raiser can easily and quickly double his profits by doubling his egg yield through the remarkable discovery of M. B. Smith, a Kansas City chemist.



Working along entirely original lines Mr. Smith discovered why hens lay less in winter than in summer, and perfected a formula that turns loafers into layers and profit makers.

Within five or six days this discovery, which is called Ditto Egg Tablets, will rejuvenate your flock. Your hens will go strutting and cackling about with red combs and full of life and pep. Every nest will yield an egg nearly every day in the week, which means a lot, since eggs are certain to sell for 60 cents or more. This is not guess work as over 100,000 successful poultry raisers testify to the value of Mr. Smith's products.

Although different from anything you ever heard of, Ditto Egg Tablets are easily administered by simply dropping in drinking water.

So confident is Mr. Smith you can double or triple your egg yield, that he offers to send two large \$1 packages of Ditto Egg Tablets (enough for a season) to any reader who will write for them. If you are satisfied they cost only \$1 on this introductory offer, otherwise, nothing.

Send no money—just your name and address to M. B. Smith, 1261 Coca Cola Building, Kansas City, Mo. The two \$1 packages will be mailed immediately. When they arrive, pay the postman only \$1 and postage. Use the tablets 10 days. If you are not getting more eggs or are not satisfied for any reason, simply return unused tablets and your money will be returned immediately without question. A big Kansas City bank guarantees the reliability of this offer. Write today before this introductory offer is withdrawn, as you can sell one package to a friend and thus get your own free.

Chicks World's Champion Layers



From grand selected flocks on full range. Strong vigorous chicks that will prove great layers. Flocks culled by poultry experts and headed by vigorous pedigree males. Fine catalog free.

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Box 420, Zeeland, Mich.

DAY OLD CHICKS

Strong, sturdy, S. C. White Leghorns (English strain) from large, vigorous, yearling hens, raised on our own farms. That lay and pay. Barred Rocks and Rhode Island Reds, from best laying strains. Send for our illustrated catalog, free.

Hillcrest Poultry Farms and Hatchery
R. R. 2 Holland, Michigan.

Star Hatchery

BABY CHICKS
From Select, Vigorous, Certified, Heavy Laying Breeding Stock
WHITE and BROWN LEGHORNS and ANCONAS
50—\$7.00—100—\$14.00—500—\$65.00
50—\$8.00—100—\$16.00—500—\$75.00
Hatched by modern methods in best machines under our personal supervision. Carefully packed and sent postpaid and 100% live delivery guaranteed. Bank Reference. You take no chances in ordering STAR BABY CHICKS. Place your order now and get them when you want them.
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GUARANTEED BABY CHICKS

TOM BARRON ENGLISH S. C. WHITE LEGHORNS
1,500 breeders on our farm. Hatch every Tuesday starting March 1st. Write at once for new catalog and prices. 100% delivery guaranteed, shipped postpaid.
DOWNES POULTRY FARM
R. F. D. 1, Washington, Mich.

DAY OLD CHICKS

Best Paying, Heavy Laying, Pure Bred Tom Barron English White Leghorns, Rhode Island Red, Barred Rocks, Strong healthy chicks from State Inspected and Approved Stock. Order now at low prices. Instructional catalog FREE.
Brammer's Poultry Farm, Box 29, Holland, Michigan

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

merely to hatch the chicks. Allowing 20 chicks to a brood it will require 25 hens for two months to brood them. This is equal to the loss of fully three months time on 25 hens. This, too, during the very best laying season. In these three months each hen would produce not less than 4 dozen eggs at the lowest estimate, meaning 100 dozen eggs, to say nothing at all about the value of the time saved by the attendant. It is very little more trouble or work to care for four or five hundred chicks in the proper brooder house than to take care of a couple of hens with broods. The next source of revenue would be say 200 cockerels at not less than 50 cents each. If properly finished and marketed they are more likely to bring 75 cents each. But we have shown a saving of at least \$25 of eggs laid, and allowing \$100 for 200 cockerels gives us a clear cash return of \$125, and a flock of 200 pullets at 10 or 12 weeks old, the cost of the pullets being nothing whatever but the feed which they have consumed to that age. The 200 old hens which would be left and marketed in the fall, since the pullets would replace them would probably bring \$150 more.

The brooder house and stove required should not cost over \$60 to \$70 but this is a permanent investment since they will last a lifetime.

A few words of caution. Beware of very cheap chicks. They may easily be too cheap to be good or prove satisfactory. Buy direct from a known hatchery. The men who, themselves, hatch the chicks and supervise the flocks from which the eggs come that produce the chicks. You will find the advertisements of such hatcheries in the leading farm publications. Usually the hatcheries are behind in filling orders during the rush season from the middle of March to the middle of May; hence, it is well to order quite early if the chicks are wanted on a certain date during this period. Provide also well in advance of the arrival of the chicks, a suitable house and brooder with which to raise them. As a rule, the hatchery men can advise you as to these brooder houses and stoves.

CHICK FEEDING

Great care in feeding young chicks should be exercised. A few don'ts should be observed.

- 1—Don't feed a chick till it is at least 48 hours out of the shell.
- 2—Don't feed too much at a time.
- 3—Don't feed sloppy foods.
- 4—Don't feed poor quality food.
- 5—Don't keep the chicks too warm or too cold.
- 6—Don't overcrowd your chicks.
- 7—Don't allow filth to accumulate in their quarters.
- 8—Don't keep chicks indoors too long.

9—Don't neglect keeping water and buttermilk or sour milk before them at all times.

10—Don't neglect the grit and fine oyster shells and charcoal.—M. A. C.

CO-OPERATIVE MARKETING OF EGGS

Co-operative egg selling associations have been organized by several farmers in several parts of the country. One of the most successful is in Orange township, Black Hawk County, Iowa.

"The object of the association is to produce better and more eggs. The eggs are guaranteed strictly fresh. Eggs must be gathered at least once a day in winter, twice a day in summer, and all male birds sold or shut up June 1. Each member is furnished a letter which is stamped on each egg sold by him and on each carton containing eggs. The producer must replace every egg that is not up to the guarantee. All eggs are sold at four cents a dozen above the market price. The association sells about 10,000 dozen eggs a year." (Iowa State College bulletin No. 184.)

Dear Mr. Slocum—I am spreading the gospel of the M. B. F. among the ruralites. You surely are making a hit with them. Your December 9 issue was a hummer. Keep each number up to a high standard and you surely will win out so that in the near future you will be back to a weekly issue which will enable you to reach the one hundred thousand circulation mark. Respectfully yours, C. W. Eisenmann.

Keep the Business Farmer coming. See page 25.

CHICKS

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

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

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

WYNGARDEN HATCHERY
Box B, Zeeland, Mich.

BABY CHICKS

Bargain Prices—Write Quick. Best paying, highest quality, Pure Bred Tom Barron and Hollywood

White Leghorns—Egg Records 270 to 300 eggs in one year—Brown Leghorns, Anconas, Barred Rocks, Rhode Island Reds, White Wyandottes. Book orders now—get liberal discount. Valuable catalog free.

We guarantee to save you money—give us strong, healthy, perfect chicks, the best that money can buy, guarantee live delivery, and absolute satisfaction. Write today sure.

SUPERIOR POULTRY FARMS
Box 104 Zeeland, Michigan

Egg Bred White Leghorn CHICKS

Double your poultry profits with our famous improved Winter Egg Basket Strain of S. C. White Leghorns. They are the selected, long, deep-bodied typical hens with large lopped combs, mated to the famous Hollywood and Beal 250-300 EGG Pedigreed sires. All our breeders are culled, selected, and mated by poultry specialists and inspected and approved as to their laying ability and health.

Our Leghorns are winners at LEADING Egg Laying Contests and Poultry Shows. Thousands of customers all over the U.S. are reaping a golden harvest of eggs they get round from our egg bred layers. You, too, can make big money with them. FREE Valuable Catalog tells all about EGG FARMING FOR PROFIT and What and How to feed for results. Worth many dollars to you. Get our prices on chicks and eggs before you buy. Write AT ONCE.

Q. DEVRIES, Grandview Poultry Farm, Box L, Zeeland, Mich.

FROM ONE OLD TRUSTY TO 42,000 CAPACITY IN 8 YEARS

A grow like this means Honest dealing. Please send for our new catalog at once, it is a dandy. Reasonable prices and satisfaction guaranteed. Order early to avoid delay in shipping, as many were disappointed last season.

CITY LIMITS HATCHERY

R. 5 Holland, Mich.

400,000 Chicks

Big, strong, Well-hatched Chicks from selected to lay stock on free range, properly fed and housed to insure health and vigor. **WHITE, BROWN & BUFF LEGHORNS, 50, \$7.00; 100, \$13.00; 500, \$62.50. BARRED & WHITE ROCKS, S. C. & R. C. REDS, ANCONAS, 50, \$8.00; 100, \$15.00; 500, \$72.50. WYANDOTTES, 50, \$8.50; 100, \$16.00; 500, \$77.50. BUFF ORPINGTONS, SILVER WYANDOTTES, 50, \$9.50; 100, \$18.00; 500, \$87.50. POSTPAID.**

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

MODERN HATCHERY
Box F, Mt. Blanchard, Ohio

HIGHEST QUALITY CHICKS

Michigan's Old Reliable Hatchery

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

PURE BRED English and American

S. C. W. Leghorns; S. C. Anconas; Barred Plymouth Rocks and R. I. Reds. Strong, well hatched chicks from tested Hogenized free range stock that make wonderful winter layers. Chicks sent by Insured Parcel Post Prepaid to your door. 100% live delivery guaranteed. Fifteen years of experience in producing and shipping chicks has given absolute satisfaction to thousands. Write for illustrated free catalog and price list. Get lowest price on best quality chicks before you buy.

Holland Hatchery, R. 7, Holland, Mich.

GUARANTEED BABY CHICKS

From World's Champion Layers. Certified, Trap-Nested, Pedigreed, Snowden's English White Leghorns, 250-281 Egg records; Sheppard's 331 Egg strain Anconas. Guaranteed strong healthy chicks. Real money makers. Send for Catalog FREE.
FRANK A. VAN DREE, Box 48, Zeeland, Mich.

Day Old Chicks

From Select, Hogan Tested, Flocks on Free Range. Well-fed and handled to insure strong, vigorous chicks. Heavy Layers. PRICES: **WHITE and BROWN LEGHORNS and ANCONAS, 50, \$7.50; 100, \$14.00; 500, \$65.00. BARRED ROCKS, 50, \$8.50; 100, \$16.00; 500, \$75.00.** Hatched right and shipped right. Postpaid. 100% live delivery guaranteed. Bank Reference. Order direct from this ad. Circular free.
BORST & ROEK, Box P, Zeeland, Mich.

CHICKS From State Inspected Flocks

We Specialize In **ARISTOCRAT BARRED ROCKS, TOM BARRON WHITE and EVERAY BROWN LEGHORNS, SHEPPARDS STRAIN ANCONAS, SELECT ARISTOCRAT ROCK CHICKS, \$30 per 100. SELECT LEGHORN AND ANCONAS CHICKS, \$22 per 100. 10% discount on early orders to March 1st on these special matings. Get our special low prices on our grade B Chicks. Postpaid, full live delivery guaranteed. Reference 2 Banks. Also Breeding stock in above varieties. Member M. B. C. A. FAIRVIEW POULTRY FARM, Route 2 K, Zeeland, Michigan.**

CHICKS

\$10 per 100 and Up
From good heavy laying flocks on free range. **WHITE LEGHORNS, 50, \$7.00; 100, \$13.00; 500, \$62.50. BARRED ROCKS AND REDS, 50, \$8.00; 100, \$15.00; 500, \$72.50.** From Extra Select flocks headed by Michigan Cockerels. **WHITE LEGHORNS, 50, \$8.50; 100, \$15.00; 500, \$72.50. BARRED ROCKS AND REDS, 50, \$9.00; 100, \$17.00; 500, \$82.50.** Postpaid and full live delivery guaranteed. Order now from this ad. Catalog Free.
LAKE VIEW POULTRY FARM, Route 8, Box 3, Holland, Michigan

OVIE'S BABY CHICKS

HEAVY LAYING
breeding stock or real quality helps producers. Ovie's strong healthy and husky chicks.
25,000 Thrifty Chicks Weekly
Write for catalog, 14c and up, prepaid. 12 leading breeds. Delivery guaranteed.
Ovie's Poultry Farm and Hatchery
132 Boots Street, Marion, Indiana

QUALITY CHICKS

GET THE PROFITABLE AND LAYING KIND
They will pay you big. Free range. Selected. Hogan test. Orpingtons, W. & Sil. Wyandottes, 50, \$9.25; 100, \$18.00. Rocks, Reds, Minorcas, 50, \$8.25; 100, \$16.00. Anconas, heavy broilers, 50, \$7.25; 100, \$14.00. Leghorns, 50, \$7.00; 100, \$13.00. Mixed, all varieties, \$11 per 100 straight. Postpaid. Safe delivery. Circular free. Bank reference. Middlepoint Hatchery, Middlepoint, Ohio, Dept. B.

PIONEER FARMS

CHICKS FROM CERTIFIED FLOCKS
Single Comb White Leghorns, Heavy Layers, 50, \$7.00; 100, \$13.00; 500, \$60.00. Tom Barron Strain S. C. W. Leghorns, 50, \$8.00; 100, \$15.00; 500, \$70.00. Barred Rocks, Extra Fine, 50, \$9.50; 100, \$18.00; 500, \$85.00.
All Chicks hatched from our own flocks. Postpaid, 100% live delivery guaranteed. Reference, Zeeland State Bank. Circular free.
PIONEER FARMS, R. 3 M, Zeeland, Mich.

BABY CHICKS

Hardy free range stock—a Pure Bred Practical Poultry specialist adapted to the farmer poultryman; stock that has proved of exceptional practical value on Michigan farms.

PULLETS
A limited number of S. C. White and R. C. Brown Leghorns, and White Rocks. Write for quotations.
STATE FARMS ASSOCIATION
202 Chase Block, Kalamazoo, Michigan

WOLVERINE BABY CHICKS ARE CHICKS THAT SATISFY

Bred for egg production 13 years. We hatched and shipped chicks for 13 years. This assures you success. **ENGLISH TYPE WHITE and BROWN LEGHORNS** 100% safe arrival guaranteed. Write for catalogue. It's free. **WOLVERINE HATCHERY, R. 2, Zeeland, Mich.**

CHICKS Low prices. From selected

White Leghorns, Brown Leghorns, Anconas, Barred Rocks. Postpaid, full live delivery guaranteed. Catalog free. Bank Ref. **THE BOS HATCHERY, R. 2, Zeeland, Michigan. John Bos, Prop.**

WHITTAKER'S R. I. REDS—Michigan's

Greatest Color and Egg Strain. Bred from winter layers for 13 years. Chicks and eggs. Write for free catalog. Interlakes Farm, Box 4, Lawrence, Mich.

CHICKS—SINGLE COMB BUFF LEGHORNS

only Strong healthy chicks from good laying stock. **J. W. WEBSTER, Bath, Mich.**

BABY CHICKS—PUREBRED BARRED ROCKS,

Buff, Wyandottes, Black Minorcas, R. I. Reds, Brown and White Leghorns. 12c and up shipped postpaid. **THOS. G. O'LEAGHAN, Fenton, Mich.**

CERTIFIED BABY CHICKS S. C. Brown

strain White Leghorn Baby Chicks. Write for catalogue. Cooks Poultry Farm, Holland, Mich.



MARKET FLASHES



FOOTE'S MARKET REVIEW

THE contrast between business in the United States and business conditions in European countries is very marked, and bringing about a restoration of pre-war conditions across the Atlantic is evidently going to be slow. One of the most important announcements made in this country is that of the railroads that record expenditures for new equipment and improvements are going to be made this year, and twenty-seven roads plan to spend more than \$350,000,000. These systems have less than 40 per cent of the mileage of the country, and their officers say that even greater expenditures will be made if conditions are favorable. "If it is to be assumed that an equal amount will be spent by railroads having the remainder of the mileage of the country," says the Railway Age, "the total expenditures for equipment and improvements will exceed \$700,000,000." It is not generally believed, however, that enough money will be spent this year to make good the deficiency caused by several years of stoppages of growth, and increases in expenditures are well safeguarded. Published statements just out show that the class 1 railroads earned much more money last year than in 1921, but they only earned 4.02 per cent on the investment in their property. It is learned that more traffic has been moving over the railroads recently than ever before this season. Our import trade looms up big for the past calendar year, and imports were around \$400,000,000 greater than for 1921, but exports ran around \$700,000,000 below those for 1921. The packers report that their export trade in meats is seriously injured by the European political situation, as well as economic conditions. On the other hand, the domestic trade in packing house products shows marked improvement, beef moving into trade channels more freely, while there has been a broad and strong demand for fresh pork. Money is loaned by the banks at unchanged rates, Chicago banks receiving from 5 to 5 1/4 per cent.

The Fall in Wheat Prices

The long upward movement in prices for wheat reflecting the large exports of wheat and flour from the United States and Canada, has been followed by big breaks in values, renewed warlike occurrences in Germany and marked falling off in our exports of breadstuffs serving to bring a bearish sentiment among traders on the Chicago Board of Trade, and the former substantial premium over prices of a year ago has largely disappeared. Still some large foreign purchases of rye have been made within a short time, and it was reported that Germany bought in the first week of 1923 a total of 6,000,000 bushels of rye, the largest purchase of the season. Because of its relative cheapness, rye has all along been in large foreign demand, Germany leading in buying, and in all probability the surplus supply will all be needed. The visible rye supply in this country is placed at 10,865,000 bushels, comparing with 7,145,000 bushels a year ago; that of oats at 32,122,000 bushels, comparing with 67,182,000 bushels last year; and that of corn at 16,585,000 bushels, comparing with 24,787,000 bushels a year ago. Recent marketing of all grains reached the largest proportions seen in five years, and it is evident that farmers largely want to sell their surplus holdings or at least a fair share. The world's wheat crop is now placed at 2,932,000,000 bushels, comparing with 2,228,000,000 bushels for the year preceding the war's close. The flour trade is very dull, and large dealers are well supplied, while millers are buying only enough to keep the mills at work, because of the recent unsettled state of the wheat trade. Within a short period flour prices have declined from 50 to 75 cents a barrel. May wheat sells in Chicago at \$1.19, compared with \$1.12 a year ago; May corn around 72 cents, compared

MARKET SUMMARY

Wheat steady. Corn, oats and rye unchanged. Beans firm. Receipts of eggs large and prices easy to lower. Butter steady and supply small. Poultry market easy, owing to large supply and small demand. Dressed calves steady and hogs easy. Potatoes in active demand. Cattle dull and lower. Sheep firm.

(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.)

with 53 cents last year; May oats at 45 cents, compared with 38 cents a year ago; and May rye at 88 1/2 cents, compared to 83 1/2 cents a year ago. Barley sells for cash at 57 to 60 cents.

The Cattle Industry

The markets of the country cannot use as many cattle to advantage as they could several weeks ago, and on days when supplies are much above the average prices are pretty sure to develop more or less weakness, as happened on last Monday, when a "run" of 24,740 head in the Chicago Stock Yards sent prices down from 15 to 25 cents for the principal part of the offerings. It should be stated, however, that the country shippers are very apt to get in too many cattle at the beginning of the week, and later rallies are quite the usual occurrence, as happened last Tuesday, when receipts of only 12,000 brought about a rally of 25 cents for the medium to pretty good grades. For several weeks the receipts have consisted of mainly short-fed and warmed up cattle, and the principal part of the offerings have sold far below prices paid for choice beef steers. Sales of the latter are made at a substantial premium, with the bulk of the beef steers bringing \$8.25 to \$10.50. The course of the cattle market last week was a surprise, prices being largely 50 cents higher, in spite of the heavy supplies, the Chicago receipts aggregating 60,800 head, comparing with 50,247 a week earlier and 66,968 a year ago. The best long fed steers sold at \$10.50 to \$11.85, and prime long yearlings sold at \$11.75. Inferior steers sold at \$6.50 to \$7.50, not counting some on the canner order taken at \$5 to \$6.25. Stockers and feeders sold mostly at \$6 to \$7.50, a few going at \$8. Veal calves sold at \$5 to \$11.75 and butcher cows and heifers at \$3.50 to \$8.75. A year ago the best beef steers brought \$10.

Large Marketing of Hogs

Owners of hogs as a class seem to be ready to get their hogs to market as soon as they are well finished, and for a week the Chicago market was liberally supplied, the receipts far exceeding those for a week earlier and those for the corresponding week last year. Naturally, some bad breaks in prices took place, notwithstanding an unusually large

demand from eastern packing points, but most of the declines were really smaller than might have been expected with so many on sale, as many as 27,000 hogs being carried over unsold at night, largely held by the speculators. The bulk of the hogs offered sell within a range of 40 cents, with prime light hogs going highest and selling 25 cents above the best heavy butcher weights. Recent receipts averaged 239 pounds, comparing with 226 pounds a year ago and 219 pounds for the past ten-year average for corresponding weeks. Most of the time exports of lard and cured hog meats are much greater than a year ago, and the consumption of fresh pork in this country is on a big scale. Provisions are much higher than last year. Western markets are receiving this month far more hogs than a year ago, and Chicago's receipts for last week are around 275,500 head, the largest in four years, comparing with 227,677 a week earlier and 255,049 a year ago. Naturally prices went off, and on the closing day hogs sold at \$6.70 to \$8.55, comparing with \$7.40 to \$9 a week earlier and with \$6 to \$8.40 a year ago.

High Lamb Prices

Sheep and yearlings are marketed rather sparingly, most of the Chicago receipts consisting of lambs, prices for which rule far higher than in most past years. Of course, values rule lower at times, and this happens on such days as the big packers hold back after receiving supplies consigned to them direct from other western markets. Many of the lambs weigh 90 pounds or more, and killers discriminate against these, preferring the medium weights. Not many feeding lambs are offered, and they come high, the larger share going to Michigan. Feeders weighing around 60 pounds sell the highest. The shorn lambs sell \$1.50 to \$2.50 under prices quoted below for woolled lots. The sales were made on the Chicago market of lambs at \$12.75 to \$15, feeding lambs at \$13.75 to \$14.85 and yearlings at \$10 to \$13. A year ago the best lambs sold at \$12.90.—Foote.

WHEAT

Last week was a period of light trading in the wheat market and changes in prices were small. Trading was light because of inability to

figure out the trend of the market in the near future. Dealers were unable to understand how the reports from Europe are going to affect the future of the market. The movement of France to force the collection of a debt from a defeated nation has never been duplicated in history as far as grain dealers are able to see and they are at a loss to predict what the future may hold for the man who owns any wheat. Latest reports, however, indicate an early settlement between France and Germany and leaders are more optimistic and trading promises to be better before the close of the current week. It is a well known fact that Europe needs wheat and the American product will find a ready market if Europe can settle her internal troubles soon.

Prices

Detroit—Cash, No. 2 red, \$1.35; No. 2 white and No. 2 mixed, \$1.33. Chicago—No. 2 hard, \$1.19 @ 1.21 1/4. New York—No. 2 red, \$1.34; No. 2 hard, \$1.32 1/2. Prices one year ago—Detroit—No. 2 red, \$1.19 1/2; No. 2 white, \$1.16 1/2.

CORN

Corn ruled firm much of the time the past fortnight and the only thing that prevented substantial gains in prices was free selling whenever the market advanced. Shipments from the country showed a falling off and export demand improved. Although prices are higher than one year ago consumption of corn is heavy. The advance at Detroit during last week amounted to only 1 cent. Receipts at Chicago last week aggregated 4,358,000 bushels and shipments amounted to 2,623,000 bushels.

Prices

Detroit—Cash No. 2 yellow, 77c; No. 3, 76c; No. 4, 74c; No. 5, 72c. Chicago—No. 2 mixed, 72 @ 72 1/2 c; No. 2 yellow, 72 @ 73c. New York—No. 2 yellow and No. 2 white, 90 1/4; No. 2 mixed, 89 1/4 c. Prices one year ago—Detroit—No. 2 yellow, 56c; No. 3 yellow, 51 1/2 c.

OATS

Trading in oats has been quiet the past fortnight. Prices in this grain have followed the trend of those of other grains, while demand has ranged from nul to fair. Receipts are larger and Chicago reports domestic shipping demand has broadened out to a further extent.

Prices

Detroit—Cash No. 2 white, 50c; No. 3, 48 1/2 c; No. 4, 47c. Chicago—No. 2 white, 44 1/2 @ 45 1/2 c. New York—No. 2 white, 55 1/2 @ 56c. Prices one year ago—Detroit—No. 2 white, 42c; No. 3, 39 1/2 c; No. 4, 36c.

RYE

Rye was easy the first half of the past fortnight and the price at Detroit declined 3 cents during the last week the tone changed to firm and there was a gain on this market of 1 cent.

Prices

Detroit—Cash No. 2, 91c. Chicago—Cash No. 2, 87 1/2 c @ 87 3/4 c. Prices one year ago—Detroit—Cash No. 2, 83c.

BEANS

Bean prices are still climbing. The Detroit market advanced 60 cents during the past two weeks and the tone at present is firm and the market has a healthy look to it. The farmer who decided at threshing time last fall to hold his beans and still has them in good condition has made some money. And if present demand continues and the outlook for the future remains as bright he will make still more money by continuing to hold.

Prices

Detroit—C. H. P., \$9 per cwt. Prices one year ago—Detroit—C. H. P., \$4.00.

Official U. S. Marketgram

U. S. Bureau of Agricultural Economics

Washington, D. C.,—For the week ending January 13, 1923.

FEED—Mill feed markets inactive with buyers and sellers far apart. Stocks mostly in second hands and firmly held because of improvement in grains. Wheat feeds slightly firmer on light offerings by mills. Oil meals easier and cottonseed meal quoted about \$1 lower. Gluten feed prices advanced by the manufacturers \$2 per ton. Hominy feed firm, price shade higher, demand and offerings light. Inferior and storage stocks good. Receipts and movement good. Quoted January 12, Bran \$25.75; Middlings \$24.50; Flour middlings \$27.25; Rye middlings \$23; Minneapolis gluten feed \$44.35; Chicago; 34 per cent linseed meal \$53.50 Minneapolis; \$52.50 Buffalo; 36 per cent cottonseed meal \$41 Memphis, \$41.75 Atlanta; White Hominy feed \$30 St.

Louis, \$31.50 Chicago; No. 1 Alfalfa meal \$24.75 Kansas City.

DAIRY PRODUCTS—Butter markets which have been relatively steady throughout the week developed a sudden easy to weak feeling today where resulted in a sharp decline at New York. This was principally due to temporarily heavy receipts which included several thousand packages of imported butter from Denmark and Argentina. It is reported also that 3,000 packages from Australia and New Zealand arrived at San Francisco during the week. Closing prices, 92 score butter: New York 53c; Chicago 52c; Phila 54c; Boston 54 1/2 c. Advances in prices on Wisconsin cheese boards Monday have places trading on slightly higher basis than last week. Cheese prices at Wisconsin Primary markets January 12: Flats and Daisies 27c; Double Daisies 26 1/2 c; Young Americas 26 1/2 c; Longhorns 26 1/2 c; Square Prints 27c.

POTATOES

The potato market was in fine condition last week and on Monday, January 15th the Detroit market advanced 10c. This commodity is active, demand very good and receipts are small at many points, New York being the only market complaining of large arrivals. There is a general feeling that the market is in a position for further advances in the near future.

Prices

Detroit—Michigan, \$1.06 @ 1.16.



Week of January 21

ROUGHLY speaking the average trend of the temperature in Michigan for the rest of January and the first few days of February will be upward. The rise will not be continuous during all this time as the "circuit" will be broken at the end of this or beginning of next week. This "break" will induce a change to much colder weather to affect the Central states. Conditions will gradually moderate then in Michigan until about the beginning of the second week in February at which time there will be another break with the result of more cold weather which will begin the next general downward trend of the temperature for this state.

Maximum temperatures between 40 and 50 degrees will effect Michigan about or before Wednesday of this week with rain, sleet or snow about the 23rd, 24th, and 25th. Winds are also expected to be strong at this time.

Following this storm center temperatures will fall to a minima of 10 to 15 degrees above zero in Michigan with the days during the latter part of the week remaining generally fair.

Week of January 28

The mild temperatures expected to be in full swing in Michigan about the beginning of this week should be taken as a warning that within two days the bottom will drop out of Medicine Hat and flood the state with cold, winter weather. Temperatures will then remain low until about Thursday but during the latter days of the week the mercury in the thermometer will again go higher reaching its maxima point about Friday or Saturday.

Rain or snow fall is not expected to be very heavy during first half of the week. There will be two general storm periods in Michigan this week—one at the beginning and the other near the end of the week. Both storm centers will bring high winds but during the latter part of week precipitation will be heavier.

The week ends with temperatures falling in this state and skies clearing but these conditions will not last long due to another storm that will be moving eastward from the Pacific coast states.

FOR SALE

1 3 year old
Percheron Filly
4 10 year old
Percheron Mares
2 5-9 year old
Belgian Mares
4 9-11 year old
Percheron Geldings
Michigan Ag'l College,
S. S. HUDSON, Farm Supt.,
East Lansing, - Michigan

PET STOCK

PUREBRED SCOTCH COLLIES, SABLE AND white or the beautiful black and white. From heel-drivers, \$10 and up.
SILVERCREST KENNELS, Gladwin, Mich.

Chicago—Idaho Round Whites, \$1 @ 1.10; Michigan bulk, 80 @ 90c. New York—Michigan, \$1.33. Prices one year ago—Detroit, \$1.37.

HAY

There has been an improved tone to the market conditions with a trace of irregularity in the New Year market. Receipts generally are moderate due in some cases to the stormy weather at shipping points. The demand for nearly all grades has improved over a week ago.

Prices

Detroit—No. 1 timothy, \$16.50 @ 17; standard, \$16 @ 16.50; No. 2 timothy, \$15 @ 15; No. 1 clover mixed, \$14.50 @ 15 per ton.

Chicago—No. 1 timothy, \$21 @ 23; Light clover mixed, \$19 @ 20; No. 1 clover, \$14.50 @ 16 per ton.

New York—No. 1 timothy, \$24; No. 1 light clover mixed, \$24 per ton.

Prices one year ago—Detroit—No. 1 timothy, \$19 @ 20; standard, \$18 @ 19; No. 1 clover mixed \$15 @ 16 per ton.

Alfalfa—Detroit—No. 1, \$14 @ 18 per ton; Chicago, No. 1, \$22 @ 24 per ton.

MISCELLANEOUS MARKET QUOTATIONS

Detroit, Tuesday, Jan. 16th

EGGS—Fresh, according to quality, 35 @ 36 1/2c; refrigerator, 26 @ 29c per dozen.

BUTTER—Best creamery, in tubs, 48 1/2 @ 49c per lb.

APPLES—Greenings, \$1.50 @ 1.75; Baldwin, \$1.25 @ 1.50; Spy, \$2.00 @ 2.50; Jonathan, \$1.75 @ 2; other varieties, \$1 @ 1.50 per bu; western boxes, \$2 @ 3.

DRESSED HOGS—90 to 130 lbs, 11 @ 12c; 130 to 160 lbs, 9 @ 10c; heavy, 5 @ 8c; per lb.

DRESSED CALVES—Best, 16 @ 17c; medium, 14 @ 15c per lb.

LIVE POULTRY—Best springs, 20 @ 21c; leghorns, 17c; large fat hens, 23c; medium hens, 20 @ 21c; small hens, 17c; old roosters, 15c; geese, 15 @ 18c; large ducks 22 @ 23c; small ducks, 18 @ 20c; heavy turkeys, 32c; light turkeys and old toms, 25c per lb.

HIDES—No. 1 cured, 12c; No. 1 green, 11c; No. 1 cured bulls, 8c; No. 1 green bulls, 7c; No. 1 cured calf, 15c; No. 1 green calf, 14c; No. 1 cured kip, 12c; No. 1 green kip, 10c; No. 1 horsehides \$3; No. 2 horse hides, \$2. Sheep pelts, 50 @ 1.50. No. 2 hides, 1c under No. 1; calf and kip 1 1/2c under No. 1.

WOOL

The steady to active tone prevalent in the wool market for some weeks past has translated itself into action and large quantities of wool are moving at steady to higher prices. All classes of wool are selling readily at top quotations and some grades are establishing new price levels.

LARGE PART OF ALFALFA MARKETING

More than half the marketable surplus of the 1922 alfalfa crop has already been marketed, a survey just completed by the United States Department of Agriculture indicates. A survey made Sept. 15th included a marketable surplus of about 15 per cent less than the amount marketed during 1921. It is now estimated that about 65 per cent of this surplus was marketed by December 15, compared with 45 per cent of the 1921 crop at the corresponding date last year.

The movement of timothy hay to market, however, has not been as heavy to date as for the corresponding period last year, the survey shows. It is estimated that 36 per cent of the marketable surplus had been marketed to December 15, compared with 38 per cent on December 15, 1921.

The increased demand for alfalfa has been reflected in the price trend. On September 15, No. 1 alfalfa was quoted at the principal markets at an average price of \$21.50 per ton. On December 15, the average price of alfalfa at the same markets was \$23.75 per ton. This price was also \$1 per ton higher than the average price of No. 1 alfalfa on December 15, 1921. Timothy prices, however, have had a downward trend and the average price of No. 1 timothy at the principal markets on December 15, 1922 was \$21.50 per ton, compared with \$22.50 on September 15.

SHORTHORN SHOW and SALE

Michigan Shorthorn Breeders Association

AT

M. A. C., East Lansing, Mich.,

Friday, February 2, 1923

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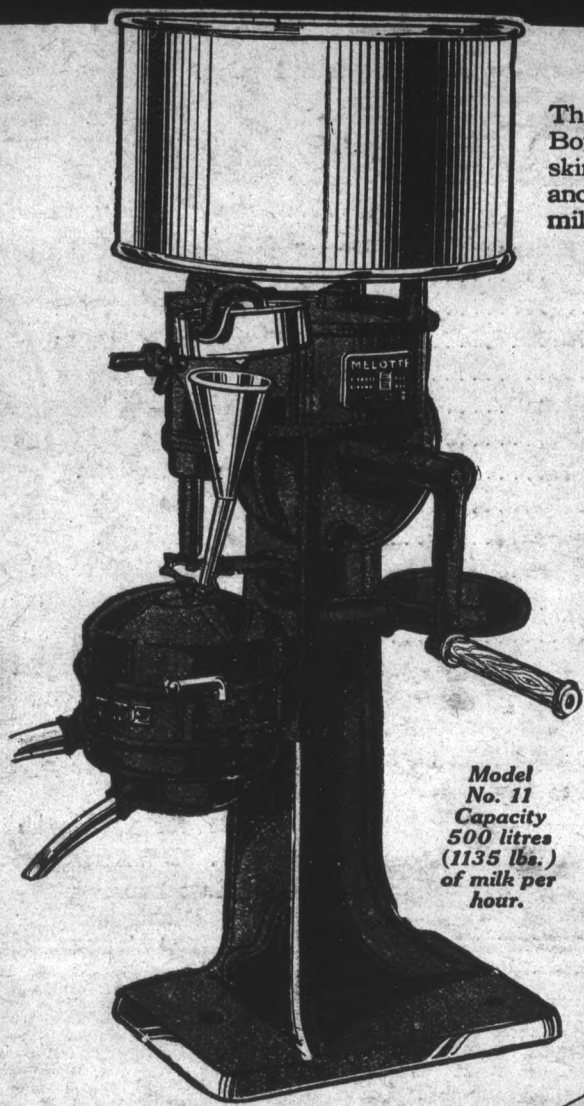
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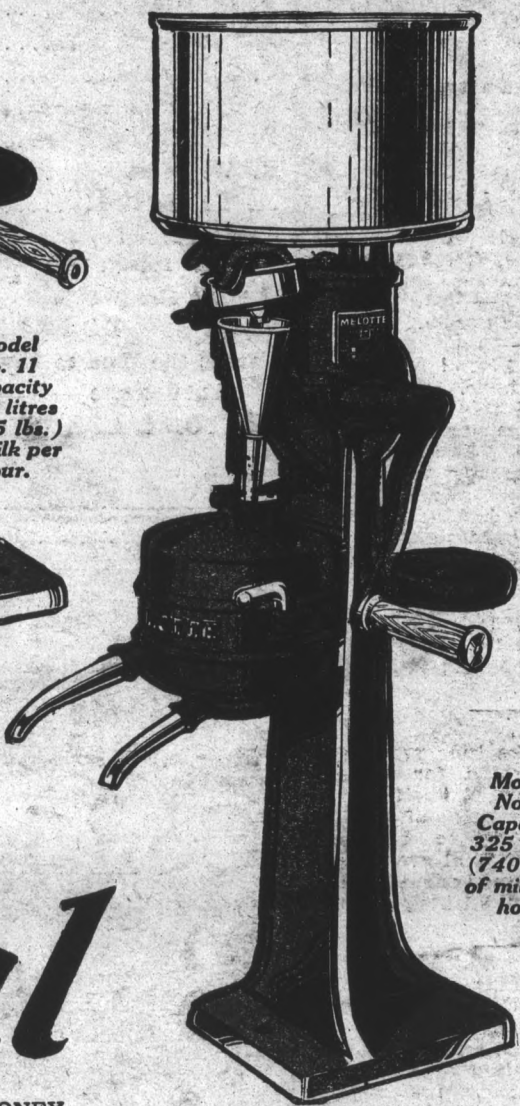
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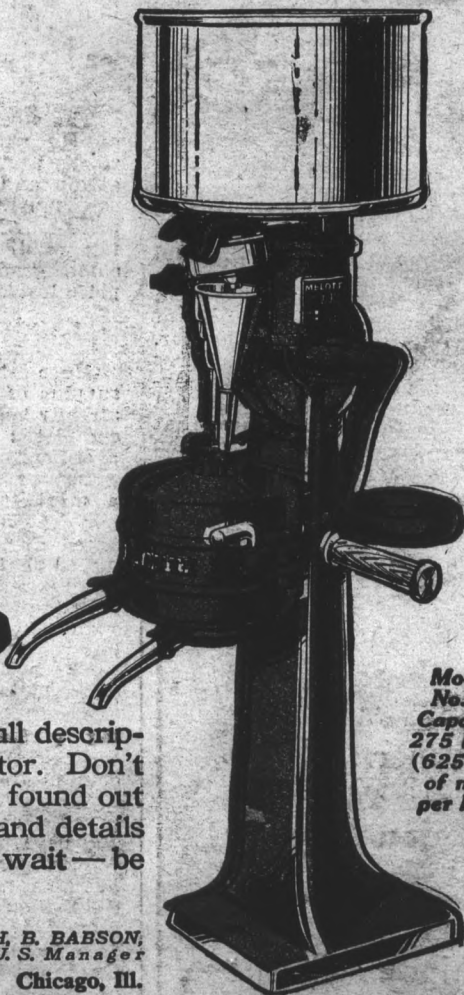
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