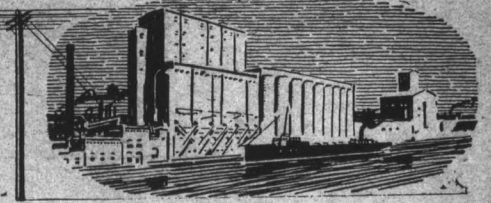


The Michigan BUSINESS FARMER



An Independent
Farmer's Weekly, Owned and
Edited in Michigan



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\$1 PER YEAR

Michigan Leads in Hubam Clover Acreage

One Thousand Acres Planted to New Annual Sweet Clover in This State

HUBAM CLOVER, the new annual legume, has been planted on a thousand acres in Michigan this year, according to reports received by the state farm bureau. So far as the farm bureau knows this state has planted more this year than any other state. Alabama, the state where Hubam was first found, is probably second and Iowa, the home of Professor H. D. Hughes, the discoverer of the clover, is considered third.

Under favorable conditions Hubam produces from 300 to 500 pounds per acre. The price this year has been \$5 a pound in Michigan and somewhere from \$5 to \$10 in other states. No one can predict what the price will be next year when there will be a larger quantity of seed on hand.

The extent to which farmers have used this seed is seen in the reports of county agents to Eben Mumford, State Leader of County Agents. J. W. Sims, of Hillsdale, says that there are 20 acres of Hubam clover in his county. Ten farmers in Eaton county have planted a total of 45 acres according to R. E. Decker, county agent, and small samples were distributed to 25 other farmers. Missaukee county farmers have planted a number of seed plots of Hubam which promises to be very popular in that locality. One farmer in Muskegon county is growing a large acreage as a commercial proposition. Indications are that it may prove a valuable crop on Muskegon sand land. Arrangements were made by County Agent Eckard of Van Buren county for a large acreage of Hubam in his county. Washtenaw county is carrying on several demonstrations.

W. F. Johnston, county agent of Wexford, who has been instrumental in introducing \$6,000 worth of improved seeds this year put on two demonstrations of Hubam last season. The seed was placed on different soils but the results seemed to be about the same. Extensive testing of Hubam in Otsego county is reported by A. C. Lytle.

Six farmers in Lenawee county are co-operating with County Agent Carr on forage tests of Hubam. Mr. Carr says, "The common white biennial is grown quite extensively to maintain soil fertility but is unsatisfactory in that it cannot be used as an annual. Our men have followed the practice of cutting for hay before June 10, then later cutting a seed crop, the year after seeding. It has not been found satisfactory to plow under the first year and it is hoped Hubam will meet the requirements."

Endorsed by Farm Bureau

"**I** BELIEVE this variety is one that will be of great use to the farmer of this and other states," said Mr. J. W. Nicolson, manager of the state farm bureau seed department, to a representative of the Business Farmer, who had asked him what he thought of Hubam clover for Michigan farms. "It will not take the place of our common clovers grown in this state but I believe it will have a place in our agricultural system."

"In this state it looks as though it will be particularly valuable to sandy sections of the state that are deficient in organic matter for it is a leguminous plant and produces more foliage in a summer season than any other legume that I know of. It will also find a special adaptation, I believe, among orchard men as a cover crop."

More than 700 seed tests of various kinds are being carried on by county agents over the state, according to Dr. Mumford. Alger county farmers have ordered 12,000 pounds of grass seed through the state farm bureau, according to C. P. Johnson. Allegan county planted upward of 5,000 pounds of guaranteed northwestern grown Grimm alfalfa. Alfred Bentall, county agent, says he believes that farmers have taken unusual pains in liming and fertilizing this year, because of the high price they have had to pay for some of the seed. Baraga county has planted 10,000 pounds of guaranteed seed. Four large public demonstrations and fifty smaller demonstrations of the best methods of growing oats, alfalfa, clover, potatoes, and soy beans are being carried on in Barry county. More alfalfa is reported to be seeded this year in Hillsdale county than any other crop. Crop work in Tuscola county has

been devoted largely to the securing of better seeds and the dissemination of pedigreed varieties, according to Mr. MacVittie, who reports that 15,000 pounds of improved grass seed was purchased by farmers. Twenty tons of clover seed of various kinds was purchased by the Wayne county farmers, including 3,000 pounds of Grimm alfalfa which is being tried in many places where common alfalfa has failed to grow, due to freezing. O. I. Gregg says that Black Barless Barley proved to be so well adapted to farming conditions in that county last year that 15 or 20 farmers are giving this variety a trial this year.

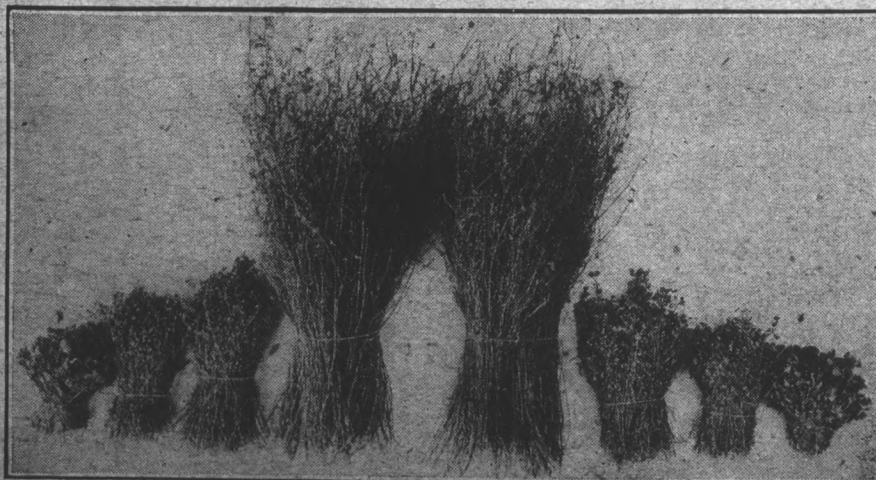
Extension work in Washtenaw county includes the testing of several varieties of celery this year. Several farmers of Schoolcraft county are giving sunflowers a careful trial as ensilage. W. E. McCarthy of Ogemaw, says, "It appears now as though the oat crop would narrow down to two varieties by another year or two instead of the numerous ones now grown, many of which are inferior in yield and quality. A concerted effort in Monroe county to increase the alfalfa acreage resulted in the purchase of seven tons of common alfalfa and 2,500 pounds of Grimm."

The 1910 census gives Marquette county 70 acres of clover. L. R. Walker says that through constant agitation and recommendation the acreage has been increased many times. Many farmers have sown who never sowed it before. More barley was sowed than ever before. More acreage of sunflowers was sowed last spring than ever before. Barley and sunflowers will take the place of corn as a grain and as silage in this county."

An interesting comment in the report of R. H. Cameron of Luce county is, "Smut in oats in this county is now a curiosity,

practically every farmer treats yearly." Four carloads of farm bureau seeds have gone to Kent county this year which R. G. Carr, county agent, believes will bring about a marked improvement in crops. The Kalkaska county agent, E. E. Twing, carried on an intensive campaign last spring to increase the acreage of sweet clover. His efforts resulted in the placing of seed through local co-operative association sufficient to sow 2,000 acres.

Reports from all other counties show that there never was a greater interest in better seed crops than this year.



The above shows growth made by Hubam clover compared with that of other clovers following small grain crop. Reading from the left bunches 1 and 8 are medium red clover; bunches 2 and 7, biennial yellow sweet clover; bunches 3 and 6, biennial white sweet clover, and bunches 4 and 5 are Hubam clover.

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The Organized Farmer

WOOL POOL CONTAINS OVER 1,500,000 POUNDS

THE MICHIGAN State Farm Bureau wool pool has passed the 1,500,000 pound mark and wool continues to come in at the rate of 360,000 pounds a week or 60,000 pounds a day, says the farm bureau wool department. More than \$150,000 has been paid to wool growers as the initial cash advance on their wool, based on half the value of the graded wool, on date of pooling. A block of 150,000 pounds of short staple fine wool was sold last week at 22 cents, says the farm bureau.

Five grading teams have visited for the first time 75 of the 130 wool grading warehouses scattered over the state and some of those in the southern part of the state have been visited the second time, when a clean-up grading was made for the purpose of closing the pool as far as those warehouses were concerned. The clean-up trip is preparatory to the volume sales of new wool which the farm bureau expects to start shortly after July 1.

At Martin, Allegan county, last week graders took care of 25,000 pounds of the wool pooled there in one day. A second trip will be necessary. Next day at Caledonia, Kent county, 18,000 pounds were pooled and at Crosswell, Sanilac county, graders found 20 loads of wool awaiting them early in the morning. A sixth grading team is to be added to the force within the next week, which will make the combined daily capacity of the teams 90,000 pounds. Graders will visit the upper peninsula where growers are sure that they will pool 100,000 pounds of wool.

Powerful support given the wool pool by the wool growers of the state is held by the farm bureau wool department to be the barometer which indicates that optimism for the future of the farm bureau is stronger than ever with the farmers of the state. Men who have been at wool pooling centers declare that the morale of the wool growers and their belief in the success of their cooperative undertaking is unshakable. Other states are watching with interest the progress of the Michigan pool and the American Farm Bureau Federation has taken the Michigan pool as an example for its national publicity on wool pooling.

Wool grading dates for the week of July 5th are: Tuesday, Evart, Mt. Pleasant, Portland, Climax; Wednesday, Reed City, Mt. Pleasant, Rosamond, Schoolcraft; Thursday, Custer, Clare, Marshall; Friday, Cadillac, Clare, Albion; Saturday, Manton, Mesick, Beaverton, St. Louis, Stockbridge.

WATER FREIGHT RATES LOWER

THOUSANDS of dollars will be saved to western and northwestern Michigan fruit growers this year through a sweeping reduction in water freight rates on fruit, recently put into effect by the Goodrich and Michigan Transit Company lines, and secured largely through the work of the Michigan State Farm Bureau traffic department, which represented the growers before the steamship lines, according to the farm bureau. The two lines operate between principal Michigan fruit and shipping points and Chicago.

Prices were cut in half on third, quarter and one-fifth bushel baskets of fruit in from 13 northwestern Michigan fruit shipping points by the Michigan Transit line, says the farm bureau. The reduction was ten cents on the basket and will result in savings of \$30 to growers on every hundred baskets of this size that they ship. It is claimed that hundreds of thousands of packages this size leave northwest Michigan every year.

Water rates on freight over the Michigan Transit line to Chicago from Bowers Harbor, Boyne City, Charlevoix, Glen Arbor, Glen Haven, Harbor Springs, Mackinac Island, North Manitou Island, Northport,

Old Mission, Omena, Petoskey, St. Ignace, Soo, St. James, Suttons Bay, Traverse City and Wildwood have been reduced as follows: Barrels and 3 bushel crates, less than carload lots, 30 to 75c; bushel baskets, 33 to 30c; half bushel baskets, 27 to 20c and one-third, quarter and half bushel baskets 20 to 10c. Reductions from Ludington, Manistee, Onkama and Frankfort to Chicago are as follows: Barrels and 3 bushel crates, less than carload lots, 34 to 55c; bushel packages, 33 to 30c; half bushel baskets, 25 to 20c; and one-third and quarter bushel packages, 20 to 15c, fifth bushel packages 17 to 10c.

Reduction on carlots and less than carlots of apples, berries, currants, grapes, cherries and also celery from Grand Haven, Muskegon, Montague, and Whitehall to Chicago on the Goodrich line range from 15 to 25 per cent and better according to the tariff recently adopted.

The carlot rate from Grand Haven to Chicago on apples has been ordered from 28 to 22c, berries and currants 80 1-2 to 63 1-2c; grapes and cherries 68 1-2 to 64c, and celery 42 to 40 1-2c, says the farm bureau, adding that proportionate adjustments have been made from Muskegon, Montague and Whitehall to Chicago.

Steamboat men declare that the reduction in rates cannot stand without a big volume of business, says Frank E. Coombs, Farm Bureau Traffic Commissioner.

NEXT ANNUAL MEETING OF A. E. R. F. IN GEORGIA

THE NEXT annual meeting of the American Farm Bureau Federation will be held at Atlanta, Georgia, November 22-25, the Michigan State Farm Bureau has been advised by the national organization. This was decided at the meeting of the Executive Committee in Chicago, on June 21. Other cities which extended invitations were St. Paul, Chicago, Louisville, St. Louis, New York, Buffalo and Minneapolis.

The Michigan State Farm Bureau with a membership of 97,000 is entitled to five delegates, one for each 20,000 members. Michigan will have one of the largest delegations at the big meeting. Iowa, which has the largest farm bureau membership in the American Farm Bureau Federation will have six delegates. Other states with an approximate membership of 100,000, entitled to five delegates are Illinois, Ohio, Texas and Indiana.

FARM BUREAU NOTES

EVERY contention of the Farm Bureau regarding cooperative elevators and the grain trade is backed up by the Federal Trade Commission's "Preliminary Report on the Profits of Terminal and Country Grain Elevators," just issued in Washington. The report shows that cooperative elevators are more efficient than independent and line elevators, as judged by the profits made.

The joint congressional commission to investigate agricultural conditions will organize and begin its inquiries next week. The commission will discuss the cold storage interests, the Haugen packer bill, the Tindler bill, which prohibits short selling of grain, the Wolstead Cooperative Marketing bill and the French Truth-in-Fabric bill.

C. J. Fawcett, director of the wool marketing department of the American Farm Bureau Federation declares that the amount of wool pooled from this or any other pool will be determined largely by the financial condition, as the majority of sheep in the western country are covered by a mortgage which follows the wool.

One of the most important provisions of the livestock marketing plan to be submitted to the producers

(Continued on page 11)

M. A. C. Campus Busy Scene June 22 and 23

Farmers' Auto Tour Association and Rural Workers Held Joint Meetings at College

GATHERED from all corners of the state, members of the Michigan Farmers' Auto Tour Association met on the campus of the Michigan Agricultural College on June 22 and 23 for a big summer camp and round-up. Several special conferences were being held at the college on the same days, and the tourists joined with the other groups in joint meetings of vital interest to all rural workers.

The Seventh Annual Conference of Rural Ministers at M. A. C. was in session during the week, as were conferences on Agricultural Economics, Rural School Consolidation, and Boys' and Girls' Club work. The Tour Association held special business meetings of its own, but the majority of the gatherings took the form of joint programs in order that all the delegates might hear the features of the different conferences. All the work had to do with agriculture and rural problems.

Thomas Nixon Carver, famous economist of Harvard University; Prof. G. F. Warren, agricultural economist at Cornell University; and Hon. Lee L. Driver, Pennsylvania State Commissioner of Rural Education, were headliners on the various programs. In addition, many of the leading Michigan authorities on farm questions were heard. President Nicol and Secretary C. L. Brody of the State Farm Bureau; leading men from the State Grange and Gleaners organizations; officials of the Michigan Agricultural College, and others rounded out what proved to be one of the best programs ever given before a group of Michigan rural workers.

Arriving at the college Wednesday morning, the scores of Tour Association people went into camp immediately and prepared for the varied activities lined up by the program committee, under the chairmanship of Dora H. Stockman, member of the State Board of Agriculture and State Grange Lecturer. Everything from a series of baseball games for the State Grange championship and swimming in the big college pool to the educational programs themselves had been scheduled by the program committee, and the tourists were kept jumping every minute of their two-day camp in order to keep up with the entertainment.

Professor Warren Talks Prices

Prediction that agricultural prices will become stabilized in the not far distant future, and that the present difference between prices of farm products and other articles will be more or less equalized was made by Professor G. F. Warren in addressing one of the joint conferences on agricultural economics.

"Prices of all commodities are now rated at about 150 on a basis of 100 during the period before the war," said Professor Warren. "Farm products, however, now rank at only 107, below the average considerably. During the war prices reached a high mark of 270. It is probable that prices will rise to about 175 now before stabilization can be reached."

Plead for Agriculture as Career

That agriculture must be dignified until farming will be considered as a full-fledged career, on a par with any other profession was the contention of T. N. Carver before the assembled conference delegates.

"A good breeder of stock is as much a creator as a famous painter or artist," declared Carver. "His work is as great, and he is fully as useful, if not more so, than the man who now gets the plaudits of the people. Farmers themselves are not often mentioned in 'Who's Who in America,' but the agricultural writer and lecturer is given full recognition.

This condition must be changed. The man who actually does the work and accomplishes the real results must come into his own."

That the movement of man power from the farms to the city is quite natural and is to be expected was the opinion expressed by Carver. It is advisable in that it cares for the surplus of people on the farms. The danger lies, however, in a possible draining of the best talent from the farms. This must be prevented by

making agricultural life more attractive and worth while.

"There are two kinds of rural leaders," said Carver. "On the one hand is the all-to-frequent leader who confines himself to a consideration of the grievances, the rights, and the wrongs of the farmer, and on the other hand the leader who points out the real opportunities and obligations, from a constructive point of view."

Round Table Discussion

Interesting round table discussions were held at one of the meetings with Hale Tenant, Marketing Specialist at M. A. C., presiding. A. B. Cook, Master of the State Grange; Alfred Allen, President of the State Association of Farmers' Clubs and Chief of the Gleaners; George B. Horton, of Fruit Ridge; and N. P. Hull, President of the Michigan Milk Producers' Association, were among the prominent farmers of the state who took part in the discussion at this meeting.

Veterinarians Meet Too

More than 250 veterinarians of the state were in conference at the College during the week, preparing for government examinations to qualify as Tuberculin Testers. These examinations were given at various points in the state on Saturday, June 25, and the veterinarians were reviewing the work of the tests under the leadership of government inspection men and members of the M. A. C. veterinary staff.

The veterinary conference brought the list of groups gathered at East Lansing from June 22-24 up to six, one of the largest bodies ever brought together to discuss agricultural problems in Michigan.—J. B. H.

Pepper Growers Benefit by Standardization

NOT EVERYBODY raises peppers, of course, but everybody who sells produce can take a lesson from Florida pepper growers who tried a new stunt in marketing this last winter. The way the county agent of Lee county, Florida, puts it is: "The truckers have been receiving good prices for peppers this season."

To get at the reason for the good prices, it is necessary to know how the peppers were put up for market. And that reveals the fact that the good prices are a result of standardizing the pack of the peppers.

Fourteen cars of peppers shipped during the first two weeks after Christmas, 1920, brought prices ranging from \$6 a crate for choice to \$8 a crate for extra fancy.

A year ago this association sold its peppers under the name Rainbow, and the pack was not of the highest quality. The markets did not take kindly to "Rainbow" peppers. Therefore, when the season opened this winter, a new brand, "Seven Stars," was adopted, consisting of extra fancy, fancy and choice peppers. As a result of closer grading and more careful packing, a better product has been established, and people are buying it at better prices.

This only emphasizes the oft-repeated advice that grading must come before marketing, if indeed it can be called a separate part of marketing. A poorly graded and poorly packed product will not sell on the market in competition with a good product, carefully graded and packed. Let us put the horse before the cart, and grade before we try to sell.

QUESTIONS AND VOTE

FINANCE

- 1 Do you favor commodity financing based on bonded warehouse receipts? Yes 51,424; No 1,239.
- 2 Do you favor live stock financing based on an adequate pledge of animals and feed? Yes 49,652; No 2,365.
- 3 Do you favor the development of a personal rural credits system based on proper safeguards? Yes 36,994; No 1,458.
- 4 Do you request that authority be granted the Federal Reserve Board to so classify rediscounts as to give priority to loans for basic production of all kinds? Yes 54,946; No 1,651.
- 5 Do you favor increasing the limit on Federal Land Bank mortgage loans from \$10,000 to \$25,000? Yes 28,981; No 8,189.

TAXATION

- 6 Do you favor asking Congress to submit to the states a constitutional amendment prohibiting the issuance of all tax-free securities? Yes 32,825; No 4,596.
- 7 Are you in favor of continuing the Excess Profits Tax? Yes 37,280; No 2,675.
- 8 Are you opposed to the enactment of a General Sales Tax? Yes 17,947; No 22,393.

TRANSPORTATION

- 9 Will you be able to move a materially larger amount of agricultural products if the American Farm Bureau Federation secures an adequate reduction in freight rates? Yes 39,969; No 1,235.
- 10 Do you favor the building of farm-to-market roads prior to the construction of trans-continental highways? Yes 38,779; No 4,424.
- 11 Do you favor the Great Lakes-St. Lawrence waterway? Yes 36,975; No 3,323.
- 12 Do you favor other waterway development for transportation, reclamation and power at this time? Yes 9,455; No 6,597.

MISCELLANEOUS

- 13 Do you favor placing the packers under regulation by the Government, and the vesting of such regulation in the Department of Agriculture? Yes 36,459; No 2,151.
- 14 Do you favor legislation making illegal the practice of short-selling in agricultural products? Yes 33,884; No 1,753.
- 15 Do you favor the Truth-in-Fabric legislation? Yes 41,733; No 333.
- 16 Do you favor enabling legislation for co-operative marketing? Yes 41,568; No 376.

Vaccinating Young Pigs to Prevent Cholera

Many Breeders Fail to Realize the Danger of this Contagious Disease

By H. H. MACK

REPORTS OF hog cholera outbreaks are again being featured in the news columns of our daily papers; every year thousands of hogs are taken by this dread disease when, if proper precautions were resorted to this persistent infection could be completely eradicated from the state within a five-year period. The time has come, in the history of this country, when live stock breeders can no longer afford to temporize with the menace of contagious disease. Cholera in hogs, tuberculosis in cattle and scabbies in sheep can be absolutely controlled and the American farmer will find it greatly to his interest to co-operate with state and national authorities in the effort to stamp out these diseases.

Conceding the necessity of stamping out the infection of hog cholera in Michigan at the earliest possible date, it is a self-evident fact that for the next five years at least, every herd in the state should be immunized by the double treatment of every hog in it with serum and virus. The cholera infection has become so widely distributed, as a result of the numerous outbreaks which have occurred in every county in the state that the menace to porcine health assumes more importance than ever before. That hog breeders fail to realize the impending danger is evidenced by the fact that scarcely ten per cent of the hogs in the state are immunized. The question of the hour, in the minds of the state authorities whose duty it is to safeguard animal health is, how can the Michigan hog breeder be made to see the need of general immunization.

An Inexpensive Operation

Many breeders do not vaccinate because of what they have been told concerning the heavy expense of the operation. Others have heard and have given credence to some of the gossip going the rounds to the effect that vaccination is not always effectual in preventing an outbreak of cholera. Others have heard

MR. MACK SAYS many breeders do not vaccinate because they have been told that the operation costs are high. Others have heard that vaccination is not always effectual in preventing cholera. The writer of this article has had several years experience in this line and he states the cost should not be over 60 cents a pig and he is satisfied that vaccination not only protects from cholera but many other diseases as well.—Managing Editor.

that, occasionally, small tumors appear in the feet or on the legs of the treated hogs, being directly traceable to the use of the virus in the vaccination treatment.

First, let us consider the expense of the vaccination. The breeder who desires to make a clean job will follow the strictly up-to-date practice of vaccinating his weanling pigs. In the first place it is important for the breeder to know that only licensed veterinarians are permitted to vaccinate hogs. The best course for the breeder to take is to get in touch with his local veterinary surgeon and agree with him upon a future date for the operation; this method of procedure will make it possible for the veterinarian to secure a stock of fresh serum and virus and to arrange matters so that the date of the operation will not clash with his other business. A breeder who has 50 pigs, five weeks old, that he wishes to have the double treatment, can get the job done for less than 60 cents apiece. Where can the breeder be found that can afford to take the chance of a cholera outbreak when he can get his hogs immunized for 60 cents apiece? The chief argument in support of vaccination for small pigs is the small cost of the treatment.

But how about the effectiveness of the vac-

cination treatment? The writer has been vaccinating hogs for several years and has not only proved to his own satisfaction that hog cholera can be prevented by vaccination but he is convinced that the vaccination of small pigs not only immunizes them from cholera but also protects them from many other diseases that the hog is heir to. Occasionally a vaccinated hog will show up with a small tumor, often the result of careless operating methods but if the attendant will watch the animal until the swelling begins to soften, then lance it, the wound will immediately heal.

Pure-breds Must Be Immunized

The time has come when the breeder of pure-bred hogs, cattle and sheep must be able to give a certificate of health with every animal he offers for sale. During the fall of 1920 the writer attended several auction sales of pure-bred hogs; the hogs in some of the offerings had been immunized and in others the animals were not immune. With scarcely a single exception, the hogs that had been immunized brought 20 per cent more than the hogs that had not been treated. The strictly up-to-date breeder will have blank certificates of health in which the date of treatment and manner of treatment can be specified. One of these certificates can be made out for each hog and the veterinarian who does the work should be asked to sign each one of these certificates before he collects his fee for doing the work. When the hog is offered for sale the breeder can satisfy his prospective customer that the animal is completely safeguarded from hog cholera. The Michigan Business Farmer desires that the time may come, right speedily, when every domestic animal in Michigan will be given a clean bill of health by complete immunization from contagious diseases.

Control Measures to Employ in Fighting Grasshoppers

Most Practical Methods of Destroying Hoppers are Hopperdozer and Poison Bait

By W. R. WALTON

Bureau of Entomology, U. S. Dept. of Agriculture

THERE are three principal methods of control which have been found to be of greater or less practical value in combating grasshoppers in this country: First, the destruction of the eggs; second, catching the insects in the field by means of traps; and, third, the use of the poisoned baits.

Destroying the Eggs of Grasshoppers

It is seldom practicable to destroy the eggs because of the many different hiding places chosen by the grasshoppers in laying them and the impossibility of reaching the same with cultivating implements. However, where they are accessible the ground containing them should be thoroughly plowed, or disked, and harrowed in the fall, as these operations prevent the eggs from hatching successfully the following spring. Attempts to reach the eggs by handwork, such as digging up the soil, is practicable only in gardens, truck farms, and places where intensive cultivation is practiced.

Mechanical Means of Destroying Hoppers

The most common method of destroying grasshoppers mechanically is by the use of a simple horse-propelled implement or trap commonly called a hopperdozer. These implements are constructed along similar lines, but are of many slightly different patterns. As originally built the hopperdozer consisted of a galvanized sheet-iron pan or trough having a back rising at right angles to the pan. It was about 16 feet in length and mounted on runners made of wood or old wagon tires. Most of the hopperdozers recently constructed

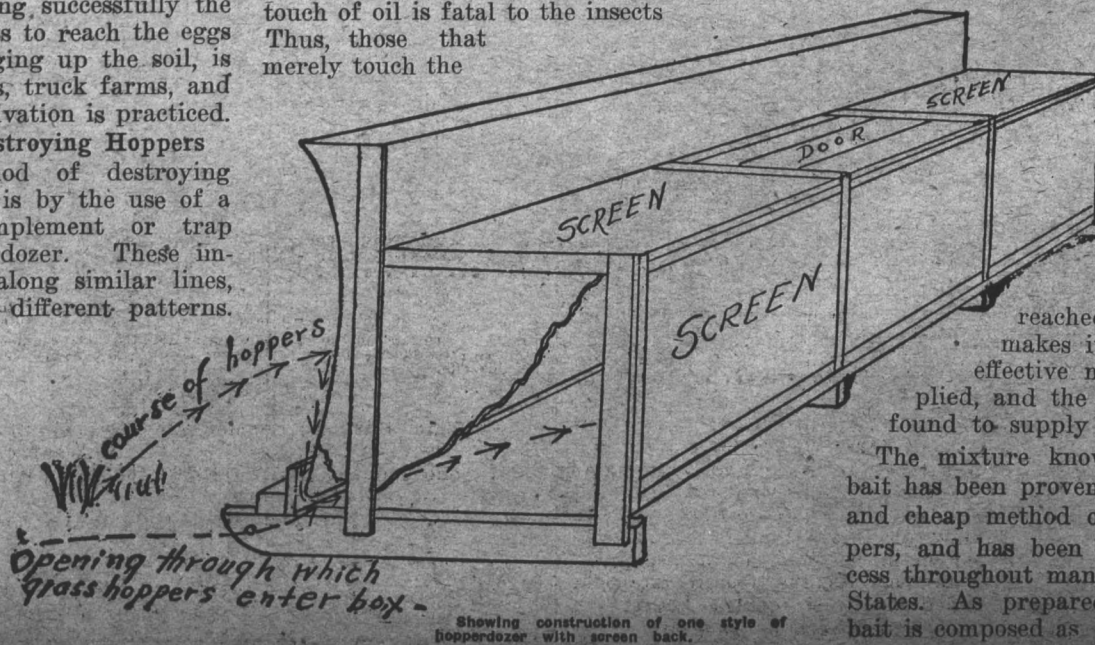
have a pan made of galvanized sheet-iron, but the back and side wings are usually built with a wooden frame covered with stout muslin, screen or light cotton duck, thus securing lightness and elasticity of structure. The pan of the hopperdozer is kept partially filled with water, upon which a film of low-grade kerosene, or coal oil, is maintained. When the implement has a cloth back and wings, these are kept moistened with kerosene oil. As the hopperdozer is drawn over the ground the grasshoppers jump or fly against its back and most of them are precipitated into the oil-covered water in the pan. A slight touch of oil is fatal to the insects. Thus, those that merely touch the

oil-soaked back of the hopperdozer are usually killed, although they may not die immediately. The cheapest procurable grade of kerosene oil is perfectly satisfactory for use in a hopperdozer. An implement of this kind has been constructed recently with a back curving slightly forward. The back and sides of this implement are covered with tin, nailed to furring strips carried by the uprights of the frame. It has been used successfully in western states, and it is claimed that the slight curve of the back and the slippery surface of the tin aid in precipitating the grasshoppers into the pan. As many as 300 bushels of grasshoppers have been collected by the use of hopperdozers on 100 acres of alfalfa. But

even where these implements may be used successfully, a great many grasshoppers escape being killed by them, and the fact that hopperdozers can not be used on uneven, stony, or recently cleared, stumpy ground, nor in meadows or fields of grain where the crops have

reached a considerable height, makes it imperative that a more effective method of control be applied, and the poisoned baits have been found to supply this need satisfactorily.

The mixture known as the poisoned-bran bait has been proven to be a simple, reliable, and cheap method of destroying grasshoppers, and has been applied with signal success throughout many portions of the United States. As prepared for ordinary use this bait is composed as (Continued on page 10)



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.)

PIPE WATER TO HOUSE

We have two houses on our place. Beside one of the houses we have a well and a windmill. Water is piped into this house and to the barn from this well now. Would it be advisable to pipe water up to the other house which is at a distance of 250 feet and an elevation of 6 feet? We wish to use water in a pressure tank for bathroom purposes. If we should pipe the water up the hill should we have a return pipe? There is an abundant supply of water in the well.—F. D., Reed City, Michigan.

It is entirely possible for you to pump water to the second house into a pressure tank and it is not necessary to have a return pipe. A windmill to operate a pressure tank successfully should be a back-gear mill. A relief valve should be next to the pump on the pipe line leading to the pressure tank. The exhaust from the relief valve may be emptied into the stock tank. A by-pass should also be made past the relief valve or some other arrangement of valves so that it will be possible to pump to the present house or barn without going through the relief valve. I have assumed that the windmill will be hand controlled. It is possible to equip pump with a hydraulic cylinder which will automatically throw the windmill in and out of gear as the pressure in the tank becomes low or high. The Flint & Walling Company, Kendaville, Indiana; F. E. Meyers & Bro., Ashton, Ohio; and Humphreys Mfg. Co., Mansfield, Ohio, can furnish you particulars regarding the hydraulic cylinder and, no doubt, the local dealer will be familiar with this type of pump.—F. E. Fogle, Assistant Professor Farm Mechanics, M. A. C.

CLOSING OLD ROAD

There is a road across the corner of my place and I got a petition to lay out the road on the section line and discontinue the old road. This the township board did and put some work on the new road but it is not passable yet. Have I a right to close the old road?—J. E. N., Mesick, Michigan.

Your statement is so very brief the answer can not be anything but in a general way. Your letter does not say whether you instituted two proceedings, one to establish a new highway and another to discontinue the old. The courts have held that you could not combine both proceedings in one but each proceeding must be upon its own merits. It would be the general rule that you would have no right to close the old road until the public authorities authorized you. If they neglect to take the proper steps that the law would require them to do you might have the aid of the court by mandamus.—Legal Editor.

THRESHING MACHINE INSURANCE

Please print names of companies that insure threshing machines.—K. and M. Threshing Co., Whittemore, Mich.

The following companies write insurance on threshing machines:

Security Insurance Co., of Connecticut, Walter D. Williams, manager, western department, Rockford, Illinois; American Eagle, western department, 207 West Jackson Blvd., Chicago, Ill.; Aetna Insurance Co., western department, Insurance Exchange Bldg., Chicago, Ill.; National Union Fire Insurance Co., Pittsburgh, Pa.; Insurance Company of North America, western department, 309 West Jackson Blvd., Chicago, Illinois.—State Department of Insurance.

CENTRAL & GULF COMPANY

Please give me information regarding reliability of the Central and Gulf Co.—M. S. G., Napoleon, Michigan.

The above company was approved by this commission November 27, 1918, and at that time the company was capitalized at \$200,000. The capital was increased to \$2,000,000 and approved February 11, 1921, permission given for the sale of \$500,000 of its common stock, par value of the stock \$10. An examination was made by the State Geolo-

gist before the application was approved.

We have had no complaints concerning this company and it seems to be ably managed. However this commission does not recommend the purchase of any security and its approval should not be construed by investors as an endorsement of value.—Michigan Securities Commission.

TAKE DOWN LINE FENCE

A man buys 40 acres and it is fenced all around, line fence and road fence. Now has he any rights by law to take down any part of the line fence. This fence was built several years before he bought the 40 and he claims the right to take down half of the line and then force the other man to replace it. The wire was also outside of his line posts. If he takes down the line fence who has to replace it?—J. J. W., Levering, Michigan.

The one who put up the fence has the right to remove the half that is not on the part of the line he is obliged to maintain. Or, under the statute he may have its value ascertained and compel the adjoining owner to pay its value or have it assessed against his land. If he removes the fence he can compel the adjoining owner to build his share if he improves the land.—Legal Editor.

SCHOOL BOARD GOES AGAINST VOTERS

Can the school board change the school rules? The people voted for 8 months school and the school board and school officers changed it to only 6 months of school. Can that be done? Why change and rob the children? They want to save on 2 months school money.—R. S., Grand Haven, Michigan.

I am of the opinion that the school board is bound to provide a school for the full time voted by the district at the annual meeting and that such duty may be enforced by mandamus.—Legal Editor.

ORGANIZE TOWNSHIP

Will you please tell me how we will go about it to organize our township? At the present time we are three townships in one and we wish to separate.—J. A., Moorestown, Michigan.

Act 312 of the Public Acts of 1917 provides for the organization of townships by the Board of Supervisors. You would want to follow all the details required by that law.—Legal Editor.

SIGNS OF OIL

Would you kindly inform me through the columns of your valuable paper what some of the indications are when oil is present in land, and oblige?—A. B., Sidney, Michigan.

The indications of oil varies according to the geological conditions obtaining in different fields.

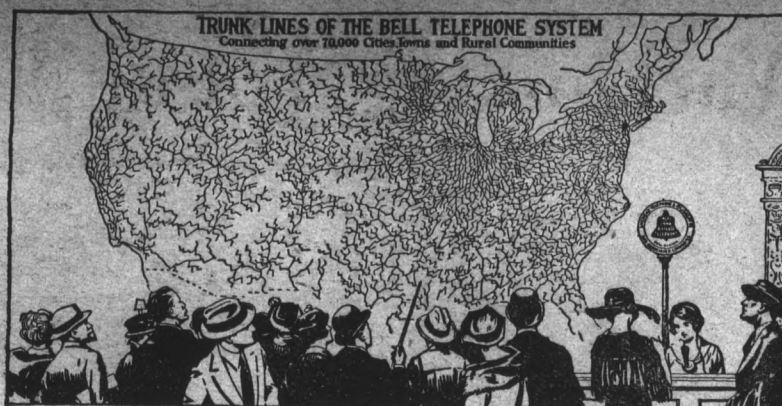
In many places seepages of oil and gas as very significant but in Michigan the seepages are most numerous where geological conditions are most unfavorable, that is, the seepages occur along the line of the outcrops of oil and gas formations. Such seepages therefore represent merely belts directly underlain by oil bearing formations but under conditions unfavorable for accumulations.

Seepages are very abundant in a belt extending along the southeast portion of Michigan and across the northern part of the southern peninsula. Many wells have been drilled on the basis of these signs but no noteworthy amounts of oil or gas have been discovered. In short, seepages in Michigan appear to have little or no significance as indicators of the presence of commercial quantities of oil or gas.

Along the Gulf coast in Texas the presence of mounds, that is "gentle rises in the level surface of the Gulf Coastal Plain" are indicative of structures in the underlying rocks favorable for the accumulation of oil and gas. The presence of sulphur on these mounds is also accepted as another suggestive sign.

In other regions folds in the rocks called anticlines, domes, benches or

(Continued on page 10)



UNITED STATES		BELL SYSTEM	
Population	107,100,000	Telephones owned and affiliated ..	12,600,000
Square Miles	3,027,000	Miles of wire owned	25,400,000
Number of Post Offices	52,600	Number of Employees	270,000
Miles of Railway (1916)	250,000	Stockholders	150,000
Passengers carried	1,191,000,000	Telephone Messages	11,033,000,000

Uniting a Nation

Within reach of the call of your telephone are more other telephones than may be found in all the other countries of the world. This is made possible by the Bell System of telephone communication.

The central administration of the Bell System by the American Telephone and Telegraph Company—

Provides for invention and scientific research.

Provides for the economic manufacture of equipment.

Provides for the standardization of methods.

Plans for future extensions.

Insures financial stability.

It is the complete cooperation between the central administration and the many operating companies that produces nation-wide telephone service.

It would be impossible for unrelated organizations to provide the best service to the greatest number at the lowest rates. Only the united effort which insures continuous development of telephone communication can carry through that controlling purpose of the Bell System.

"BELL SYSTEM"

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy, One System, Universal Service, and all directed toward Better Service



This Genuine KEEN-KUTTER
with YOUR own name FREE!



This is a genuine Keen-Kutter pocket-knife made by one of the largest and most reputable houses in America and absolutely guaranteed to give long and satisfactory use. It has two keen blades and a transparent handle under which will appear in large type as shown, YOUR FULL NAME AND ADDRESS, for identification.

You cannot buy this knife in any local store because it must be made up especially for you. Its real value you can easily see.

How to get it FREE!

This dandy knife is given FREE for a club of only Three (3) yearly subscriptions to The Michigan Business Farmer at One Dollar each, of which at least two must be NEW subscribers, the third can be your own or someone else's renewal.

Just ask two of your neighbors if you can send in their names for a year's subscription. Tell them, if you want to, that you will collect their dollar later. Send us the names and \$3, fill out the order below and the knife will come forward prepaid at once.

This is one of the most popular premiums we have ever offered, why not make the very little effort required to get your knife. Any member of a subscriber's family can accept this offer.

Michigan Business Farmer, Mt. Clemens, Mich.

Dear Sirs: Enclosed find \$3 for 3 subscriptions for which you are to send me absolutely FREE, the Keen-Kutter Jack Knife with the following name and address on it.

(To avoid mistakes, print out your name and address.)

M
P. O. R. F. D. No. State

The Michigan BUSINESS FARMER



An Independent
Farmers Weekly Owned and
Edited in Michigan



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FORREST A. LORD EDITOR

ASSOCIATES:

Frank R. Schalk Assistant Business Manager
E. R. Walker Circulation Manager
M. D. Lamb Auditor
Frank M. Weber Plant Superintendent
Milton Grinnell Managing Editor
Grace Nellis Jenney Farm Home Editor
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New York Fighting Lakes to Ocean Highway

BASED ON as selfish a motive as ever perpetrated the representatives of a single state against the best interests of the whole United States is the opposition which the lakes to ocean ship route is receiving in Washington.

The New York congressmen are lining up every conceivable objection against this inevitable national improvement, but shorn of their verbiage they all reduce to the wholly selfish desire to protect the tonnage which now passes entirely through America's bottle neck, New York harbor.

The great demand for a more economical method of transporting the gigantic wheat crop of the northwest and the products of all states west of the Atlantic seaboard, to the markets of the world is entirely overlooked by these provincial legislators.

Never, to our knowledge, have our own representatives at Washington been instructed to fight for Michigan's interests against those of the United States at large and we hope they never will be! It is inconceivable in these days when following a selfish war, in which thousands of our boys laid down their all for a wholly unselfish ideal, men in our own land should foster a policy so utterly devoid of the spirit of democracy, which we have held up as a beacon-light to the rest of the world.

No state in the United States has the right to even challenge the best interests of all the states! We hope there is a way to teach during this vastly important legislative fight a single state this lesson.

The Farm Bureau and the County Agents

AN UNDERSTANDING has been entered into between the American Farm Bureau Federation and the States Relation Service of the Department of Agriculture which if carried out means the end of a large part of the county agent's usefulness. The things which a county agent may NOT do are given below:

"The county agents will aid the farming people in a broad way with reference to problems of production, marketing and formation of farm bureaus and other cooperative organizations, but will not themselves organize farm bureaus or similar organizations, conduct membership campaigns, solicit memberships, receive dues, handle farm bureau funds, edit and manage the farm bureau publications, manage the business of the farm bureau, engage in commercial activities or take part in other farm bureau activities which are outside their duties as extension agents."

This looks like a pretty fine splitting of hairs. For instance, if the county agent sees an opportunity to better the farmers' condition through a marketing organization, he may not organize one or even suggest one. But

if the same idea should happily occur to anyone else, he may discuss the matter and offer suggestions when requested, but he may not turn his hand over to assist in the actual organization. It will be as easy to make this fine discrimination and abide by it as it is to suspend an apple in mid-air when gravity bids it fall. The county agent who is honestly interested in bettering the condition of agriculture will, despite all agreements and orders, find himself many times doing the things which he is forbidden to do.

As long as the government pays any part of the expense of the county agent there will be complaint from the taxpayer whose business is injured by the county agent's activities, and rightly, too. The Farm Bureaus are becoming numerically and financially strong enough to pay all the expense of maintaining production and marketing specialists. They should at once relieve the federal government and the state of all expense and power in connection with the county agent. Many county farm bureaus have already hired managers and commercial managers. When all farm bureaus follow suit there will come an end to the overlapping of jurisdiction and the eternal whine from the middlemen that the "county agent is ruining their business."

The Disabled War Veteran

DURING THE past week there has been held in Detroit, a convention which would wring a heart-throb from the most cold-blooded war profiteer and we assume that most of them kept at a safe distance that their emotions might not thus be perturbed.

It was the national convention of the Disabled American Veterans of the World War. We shall not seek to paint here any of the sad pictures which were thus brought to America's fourth city. Suffice is to say, that only those who could move about among their fellowmen were present and that there are hundreds and thousands of these members of this organization who are crippled or disfigured in such ways that they could not attend.

The convention was opened by Michael Aaronsohn, the blind chaplain from Cincinnati, who lost his sight in action while trying to save a comrade. Despite his handicap, Aaronsohn is continuing his studies in theology at the Hebrew Union College.

We draw the attention of our readers to this significant convention because the avowed purposes of this organization were thus expressed by one of their leaders:

"There are three motives we wish to accomplish. We want to expedite legislation now in congress for the relief of the disabled soldier; to eliminate the present red tape coincident to his care, and to impress upon the veteran the position he should occupy in society when the government ceases its relief.

"We seek to eliminate any 'beggary attitude' on the part of the disabled soldier once he is thrust upon his own resources. When the federal board completes its training we want the veteran to be resourceful and independent."

There might be a question raised by some as to extra payment for the men who served in the great war under the stars and stripes, and who returned to their homes in good health and uninjured, but there can certainly be no shadow of doubt in the mind of any citizen as to what we owe to those who were disabled.

They do not ask charity. They want no vestige of the old-time pension grab. These men gambled their all and lost in a game we all are equally responsible for starting. No man or woman will begrudge the fatherly care and attention which these men deserve at the hands of our government, no matter what the cost. Here is a place where we have no license to think in dollars and cents!

Lasker Named Merchant Marine Head

PERHAPS President Harding's chief claim to the nomination for re-election in 1924 will be his record for picking the right man for the right job and then letting him run it his own way. One of the most common criticisms of Woodrow Wilson was the claim that he made so many mistakes in picking men and then sought to cover up his mistakes by adding to his own executive responsibility

ties those of the man he had appointed. We are led to this thought again by the appointment of Albert D. Lasker, of Chicago, as the chairman of the United States Shipping Board.

This gentleman, altho his previous experience has not to our knowledge been nearer the open sea than the expanse of Lake Michigan which greeted him from his office windows, is in our humble opinion an ideal selection for the post, second in importance during the present administration to none of those which it has been President Harding's duty to make.

Personally we have known of Mr. Lasker's work for a good many years. He is above all a successful business executive and that is, as we gather from the daily press, the thing most needed in the shipping board at this time.

America has keen competition on the seas for her merchant marine. England looked with envious eyes which turned to hate on the rapid growth of Germany's sea merchantmen during the past decade, when all of America's products were carried to foreign ports under all flags but the stars and stripes. Japan already dominates the Pacific merchant fleet and practically every other important power has ships upon the ocean routes of travel.

The United States shipping board is hampered also by higher, tho more equitable, labor costs. She demands that a reasonable number of able-bodied seamen be carried to protect the lives and property during an emergency. Our fuel costs are as high and in some cases higher than foreign flags must pay.

Withal, if the United States is to have an adequate merchant marine, and no true citizen can advance a single good reason why we should not have one, then it will take the keenest business brains of America to operate it on a basis which will come anywhere near breaking even and in Albert D. Lasker, we believe, the right man has been found for a mighty hard and trying government job.

Gasoline Under Twenty Cents Again

WE HAVE not the figures available to show what percentage of the total oil consumption of the United States is upon the farms of this country, but we would venture the statement that no single industry uses one-tenth of that used by our farmers.

So the announcement this week of a cut to 19.9-10th cents on gasoline and proportionate reductions in kerosene, naphtha and distillate, by the Standard Oil Company in Michigan, means something.

Now, we do not for one minute believe that this price reduction will compare with that which the farmer has had to take on most of his products several months ago, but still it represents a cut of nearly one-third since the end of 1920 and we can be devoutly thankful these days for even small favors.

The wisest move which the producers of every line in America can make at this time, is to cut their prices down to a basis which will just net them the profit they were taking in 1913. Those that do not are going to wonder all the rest of this year, just what has happened to business. Those who do are going to feel the effects of the great farmers' buying market, within a very few weeks.

A writer on the staff of a western farm paper wrote an article on haying which was published in that paper recently. He began his article with a quotation from Whittier's poem, "Maud Muller," and the entire article was written as though his body contained the soul of a poet. We believe, after reading the article, that he never spent a day on the end of a pitch fork. There's nothing very poetical about getting a "crick" in your back or wearing blisters on your hands.

Five painters put to work on city buildings in a large Michigan city the other day were fired because they loafed. The mayor is thinking seriously of having the fellows put in jail on the charge of impersonating city officials.

The general public is all excited over the "big fight" and everyone is speculating as to who will win, Dempsey or Carpenter. They will both win. It's the people who attend the fight that will lose, according to the purists.

LOWER FREIGHT RATES

WE HAVE been taking the M. B. F. for only a short time, but like it very much. I was interested in your article "Traffic League Attacks Michigan Freight Rates" in the issue of June 4. We are hauling our potatoes out on the field this year because of high freight rates and would surely like to see them lowered. But you mention only the southern peninsula, which makes me wonder whether or not we of the upper peninsula are to be included in this fight for lower rates. I don't know how our rates compare with theirs, but it looks to us as though they ought to be lowered here, too. —Mrs. C. H. Yoder, Schoolcraft County.

We do not recall any article in the columns of this weekly in which it was intimated that we drew any line between the upper and lower peninsular of our state. When we speak of Michigan we mean all of Michigan and we love the folks up in the beautiful "Cloverland" just as well as the folks along the Ohio and Indiana border lines and hope to serve you all just as well through these columns. Unlike most farm papers we have our eyes on only our home state. Distant fields might look green, but to us, no state is like the emerald bordered and emerald dotted state of Michigan. But, answering your question, dear Madam, we are working for a reduction in railway rates not only in the entire state of Michigan, but in the whole United States. As we said editorially last week, no single factor of depression is more apparent than the present curse of high railway rates. They ought to be lowered at any cost and let the high-salaried "executives" who so cleverly defeated the purposes of government control during war times, use the same ability to get them out of the predicament. —G. M. S.

M. A. C. GRADUATE CALLS KEDZIE INCOMPETENT

I NOTED YOUR editorial in May 28th issue regarding the resignation of Frank S. Kedzie. I am glad you came out regarding it. The people should know how slow the board has been in removing an incompetent head of the institution and what the result of retaining him has been.

I am enclosing the text of his resignation and I would be glad to see an editorial from your pen upon the marked clause. To much such a request, ("However, I desire, if it is the judgment of yourself and other members of the board, to remain in the harness at the college in some capacity where I can be of best service.") under the circumstances, seems most peculiar and the granting of it by the board very dangerous. —Geo. A. Waterman, M. A. C. '91, Washtenaw County.

Things are changing pretty fast over at East Lansing. On the day this is written (June 23) Governor Groesbeck is using his influence to coax Professor Friday to accept the presidency. Professor Friday is hanging back like little Rosie asked to play her first finger exercise for company. President Kedzie is holding the job and his own feelings pretty well in check. We are pretty sure it will all turn out for the best and whether ex-President Kedzie stays in another position in the college or not, will be up to the incoming president. —G. M. S.

MORE ABOUT COUNTY REFORM

I HAVE been handed your letter in which you inquire the names of counties in other states that have successfully tried out the Commission plan of county government.

As you are probably aware, practically all counties have a more simplified government than that found in the two states of Michigan and Pennsylvania. The usual practice is for the legislative and principal administrative duties to be delegated to a commission of three or five—which group takes the place of our Board of Supervisors and Board of Auditors. In addition, there are the usual elective officers found in Michigan. This type of government can hardly be called the commission form and while it may have some advantages over the type we have, still maintains a long ballot and is open to considerable criticism.

However, states are beginning to recognize the necessity of allowing counties more autonomy. In 1911, a constitutional amendment was adopted in California which provides that upon a petition of 15 per cent of the electors, or on the initiative of the Board of Supervisors,

an election of a board of fifteen free holders may be held,—the free holders draft a charter which is afterwards submitted to the people for ratification or rejection. If ratified, the charter is presented to the legislature for confirmation or rejection. In 1912, Los Angeles county adopted a charter in which only three administrative officers were left elective,—sheriff, district attorney and assessor.

In Alameda county in which there was a local division of sentiment between the rural and urban population as to consolidation or annexation, a system of federation was devised whereby a county board, as a separate and distinct body, was abolished and was re-composed of mayors, and in the case of the larger cities, additional designated members of the city councils, and of representatives from towns.

San Bernardino county in California, as well as Denver, Colorado, has adopted forms of government which give more local autonomy to these counties.

In Maryland, the constitutional amendment was adopted allowing a certain measure of county autonomy but as yet, no Maryland county has adopted a charter, altho the Baltimore home rule charter provides for a partial consolidation of city and county offices. —Lent D. Upson, Director and Sec'y, Detroit Bureau of Governmental Research, Inc.

Here is a little more information on the proposed county "reform". It is the purpose of the Business Farmer to find out all it can about commission government for counties before the people of any county in this state will be asked to vote for a change in their form of government. If commission government is a good thing we want it. If it is no better than we have now we can't want it, and that's all there is to it. —Editor.

TEXAS OIL PRODUCTS AGAIN

I AM GLAD that the Texas Oil Products, through Mr. Frazier had use of your columns to answer me—but as he says I am malicious, I wish to say that in June, 1920, Shackleton and Graham of Grand Rapids, fiscal agents said that the refinery (600 barrel capacity) would be in operation and paying dividends. A stockholder, in 1921 dissatisfied with their failure to put up and operate a 600 barrel refinery, asked for a refund of his money, and as a subscriber of M. B. F. asked about this concern I undertook to tell a little about them. For I believe that the farmers of Michigan can better afford to buy soil fertility, sheep running water in kitchen and barns and sheds for implements rather than help stock salesmen and promoters.

I know that a number have grown tired of waiting and have disposed of their stock—and others may have bought twice or five times—as we know some men get drunk every chance they have.

The admission of Frazer, however that deferred charges to operation, \$108,212 in their financial statement of Dec. 1920, are assets is open to question, for while there

are all sorts of certified public accountants with services for sale—deferred charges to operation usually consist of prepaid rent, prepaid insurance, prepaid stocks that will be used up in work, but which are in stock or on hand and have an asset value. Frazer tells you that this amounts to over 14 per cent—or when you buy \$1,000 worth of stock \$140 of your money goes down the rat hole for salesmen's commissions. But will Mr. Frazer step to the front of the platform and deny that they spent twenty per cent for such commissions?

Will he step up and tell us where the Bostaph Engineering Company's refining plants are in operation and if they are so superior to all others why the Standard Oil or the Royal Dutch have not telegraphed in to get the exclusive use of their process?

And will he step up and deny that the Bostaph Engineering Company company will get five per cent of the sales made, which is paid to them before the stockholder gets any money for his.

Mr. Frazer says that I am ignorant and deceitful but I did not say that commissions for stock sales were assets, nor did I have a chance to assert that I am a lawyer and accountant as well as a publicist and writer with a valuable reputation.

But the Texac Oil Products Company did not seem fit to return their dissatisfied customers money, and that is a part of successful business nowadays.

He also tells us that the mere skimming plants down there will be out of the game a few years from now when their 6,000 plant is booming, but how does he know that the field will not be dry and they have to build expensive pipe lines, or haul in crude oil by freight.

I am sorry, if in the course of human events, a prying into the affairs of this company should have brought out unpleasant facts, but they made them not me. —Ezra R. S. Averill, Kent County.

Perhaps more of our readers are interested in the Texas Oil Products Company than we think there are. If so, we would be glad to publish a continued debate in these columns. Otherwise we will give the company a chance for rebuttal in not more words than Mr. Averill has used above and let our readers get further information from other sources. —G. M. S.

FOSTER'S WEATHER PREDICTIONS FINE

E NCLOSED find one dollar to pay back subscription—that I am in arrears for. Will send one dollar some time in near future for the next year's subscription as I like the paper very much. Mr. W. T. Foster's predictions of the weather gives a fellow a chance to plan his work ahead to the best advantage. Many thanks for sending the paper to me as you have. Many other publishers would have stopped the paper as soon as the year had expired. I will try and not have it run so long the next time. Thanks for past favors and will thank you for future ones. —D. O. Barnes, Otsego County.

Musings of a Plain Farmer

ARISE EARLY and go thither to the pasture for the cows. In spirits grander.

Singing in a deep falsetto. Oh, day of rest and gladness.

That milk man comes early since he sports a new truck. And he informs me without even a blush that milk has dropped sixty cents per hundred. My melody has changed to a growl and my mouth is parched with anger.

Guess I'll go in and get a cup of fifty cent coffee. Mrs. B is scrutinizing me. She undoubtedly thinks I am going to have a stroke of apoplexy.

Well, I must go to work. The wheels of the farm factory have got to turn. It can't shut down even in

the face of diminishing prices. It's too human.

This hoe is certainly getting heavy. But I must keep it going or the weeds will take charge of our farm.

Ah! Here comes the baby with a pail of cool water. She has accumulated quite a coat of tan these warm days. She chats in a lisp which is very soothing to my ear. A visit with a child brings comfort to the field.

We are building around our three daughters. Perhaps we will be paid in full when we start down the grade.

Have you noticed it's usually the daughter that smooths your pillow in your last hours? —Arthur P. Ballard, Ubly, Mich.

FARMERS OF MICHIGAN LUCKY

I HAVE BEEN reading your articles about hairy vetch and judge it to be a wonderful soil rejuvenator, as well as hay crop and grain feed. Am not surprised that your Michigan farmers can scoop us growing crops. You have those vetches, to sow with your grain, cut with the grain for straw, thresh with the grain for market, crop or feed, yet enough vetch seed shatters while being cut to reseed your land and plow under for green manure, ready for a crop of corn, potatoes or sugar beets.

With cheap manure like that and your red clover for hay and manure and no expense for sowing, harvesting or hauling, no wonder your land is kept up in first class condition. I wish I knew how to get some of that vetch seed, I would try it a whirl out here on this, the once "Great American Desert," where we get our fertilizer by the slow process of hauling manure on a wagon.

Wouldn't it be great to mix some vetch seed with the small grain and sow all together at once, a whole field at a time, instead of the slow process of hauling out and scattering by hand, maybe enough manure to cover 5 or 10 acres a year?

I don't believe that one-half of your farmers appreciate what a soft snap they have in fertilizing their land and keeping up their soil fertility. —A. A. Weston, Julesburg, Colorado.

Right you are, brother! Little does the farmer, who has spent all his life in Michigan realize what a grand old state we have. But once he leaves this state to farm in another and then return later, he cannot sing his praises of Michigan loud enough. —Managing Editor.

"TIMES AIN'T CHANGED MUCH AFTER ALL"

SOME WISE city folks talk about "pre-war prices" as if the H. C. of L. was then unknown. The following was clipped from "Fired at Random" several years before the war when Roy K. Moulton was "Colony Conductor" for the Grand Rapids Press. —Stacy Brown, Ionia County, Mich.

Some time ago we published a bit of verse glorifying the life of the farmer and telling of its advantages. Among the multitudinous comments which have arrived by mail is one from Lake Odessa written by a party who doesn't like us. He signs it "Grinnand Barrett." His reply is as follows:

"Dear Sir:
"Confound it, Mr. Moulton, you're wallowing in bliss.
Nethin' to do but loaf around and tear off stuff like this.
"High cost of livin'" Thunder! It's pitiful, that plaint.
You're paid enough to cover it, b'gosh the farmer ain't."

"Farm life suits you exactly? You're lyin' like a Turk.
What would you do, you bluffer, if you really had to work?
No chance to give the world a coat of thick vermilion paint?
You've got the time to do it, but, b'gosh the farmer ain't."

"I'll stay at home forever, because I'm money shy.
And maybe get the mortgage paid the day before I die.
Things ain't just as they should be.
There's some cause for complaint.
You're paid darned well for all you do.
B'gosh, the farmer ain't."

"Sometimes you print a jokelet. Sometimes that ain't the case,
But every time you cover up a column of good space,
Your warmed up gags would perforate the patience of a saint.
You've got the nerve to write 'em, but, b'gosh, the farmer ain't!"

Well, times ain't changed much after all. Since Moulton wrote his column. The city folks still blat and bawl in ever-increasing volume.

Yes, I would be a farmer gay
And roll in health and honey
And frolic in the new-mown hay
And gather in the money.

For what's the fun of town life
Where the cost of living's high
When one can lend the farm life
And bid his troubles "good-bye."

Yes, I would be a farmer gay
And never my duties shirk
If I was sure of my weekly pay
And didn't have to work. —Editor.

Your paper is sure a grand farm paper. I have read farm papers for 50 years and I think yours is the most right down to business paper I have read in that time. Hoping you success in your undertaking in Michigan. —A. R. Claggett, Macomb County.

THE BIRD BATH

DO YOU love the little feathered songsters? Then why not add to your enjoyment and theirs by placing a bird-bath in your garden or on your lawn?

It may not be possible to have one of cement on a pedestal—splendid because inconvenient for Miss Puss—but one can be made quite easily at no expense. I had a galvanized iron garbage container, with a hollow bottom. The top having rusted away it was no longer useful for its original purpose so I turned it upside down in my garden just behind the primroses. It stands about twelve inches above the ground and the bottom, now the top, is filled with fresh water every day standing to a depth of three inches.

The birds are certainly enjoying it and so are we. Just yesterday there was a big scrap on between two sparrows umpired, or as a little girl said, "vampired" by a robin, who in a loud and angry voice gave his decision. The bath has attracted not only robins and sparrows but brown thrush, wild canaries, catbirds, wrens and orioles.

We made way with our cat so that no murder would be committed in our garden.

If anyone wants to know how to be rid of a cat in a genteel and painless manner just ask me. Two of my neighbors failed and had a big bet that I would. Their unwelcome felines were on their back steps next morning and in revenge have given them concerts every moonlight night since but mine rests peacefully under the clover and the birds in gratitude give us wonderful concerts every morning and all day.

BETTER TIMES COMING

I HAVE wondered lately why there have not been more letters in our department and I believe it is because we have all been so busy taking care of our chickens and garden that we haven't been able to find the time. But let's give our men-folks bread and milk for supper some night and take the time to write a nice breezy letter as our editor has asked us to do.

I live in the southern part of the Thumb, where money is so scarce that every bill is stretched until it scarcely resembles U. S. currency and our clothes are so patched that the manufacturers would never recognize them; but we still sing or whistle while we gather our 20-cent eggs and milk big pails of dollar per hundred milk from our two hundred and fifty dollar cows. When we can't sell our produce "we eat what we can, and what we can't we can." And the downfall of the price of milk, eggs, etc., can't keep us from enjoying to the fullest extent the flash of blue across the garden as Mr. and Mrs. Bluebird, who have apartments in our corner post, go out looking for food for the children; the lark's 5 a. m. song; the wren's chatter; the bob-o-link's exquisite music as he gracefully balances himself on a timothy head in the meadow; and the brilliant color of the oriole who has a nest in one of our maples and is constantly flashing back and forth from nearby trees with food for the little ones, so we saw with Browning:

"The year's at the spring
And day's at the morn;
Morning's at seven;
The hillside's dew-pearled;
The lark's on the wing;
The snail's on the thorn;
God's in His Heaven—
All's right with the world."

Seriously, I believe we farmers have seen our hardest time and if we can hold on to our grit a few months longer, we shall be able to market our produce for somewhere near the production cost.—Mrs. F. M. B., Tuscola County.

I firmly believe that times are slowly improving and all we need to do is just to "hold on." Wasn't it Emerson who said that "It does not make so much difference where we stand as in which direction we are going." And I do believe we are started in that right direction toward brighter days for the farmer and that means better times for the whole country.

That is an exquisite bit of Browning, Mrs. B., and one who can appreciate such poetry and the beauties of our big out-of-doors is already rich.



The Farm Home

A Department for the Women

Edited by MRS. GRACE NELLIS JENNEY

My dear friends: Please do not think of me as someone a long way off and too busy to help you. Really, I want this page to be more than just the best department in this already awfully good farm weekly. I am so in hopes that you, whether you are sixteen or sixty, will write me once in a while on any subject that is bothering you or making you happy! I promise never to misplace your confidence, and you have no idea what a happy, helpful, friendly little department we can make this if you will only help me. In return I promise that there is nothing you can ask me that I will not be glad to do to the best of my ability, whether it be looking up a recipe, getting you the best advice on any subject or shopping for you in Detroit. Mr. Slocum is as anxious as I am, that the Business Farmer should be liked as well by the women as it is by the men folks and he has told me that here is one corner where we can have our own sweet way. Please write me some nice chatty letters on what you are doing, planning or thinking about—send me in some recipes you have found extra nice or some hints you have found time-savers. I want, Oh, so much, to know you all better!—Mrs. Grace Nellis Jenney, The Business Farmer, Mt. Clemens, Mich.

The Bird With a Broken Wing

I WALKED in the woodland meadows,
Where sweet the thrushes sing,
And found on a bed of mosses
A bird with a broken wing.
I healed its wing, and each morning
It sang its old sweet strain,
But the bird with the broken pinion
Never soared as high again.

I found a young life broken
By sin's seductive art,
And touched with a Christ-like pity
I took him to my heart;
He lived with a nobler purpose,

And struggled not in vain,
But the life that sin had stricken
Never soared as high again.

But the bird with a broken pinion
Kept another from the snare,
And the life that sin had stricken
Raised another from despair;
Each loss has its own compensation,
There's healing for each pain,
But the bird with the broken pinion
Never soared as high again.

—Hezekiah Butterworth.

CORRESPONDENT'S COLUMN

TWO LADIES, readers of our Department, have written me asking for orders for crocheted work. I will gladly give their names and addresses to anyone writing me.

It seems to me that it would be much better to allow your names and addresses to be given here in this column. You would hear direct instead of thru me and much time would be saved to you, but that is for you to decide.

We have plenty of recipes for cream puffs and lemon pie but none for the Norwegian cakes. I am sure anyone having it would send it in.

A very good way to keep cheese is to put it in a glass jar fastening an oiled or waxed paper over the top with a rubber band. This will do in some houses, but in mine the only sure way to keep it is to hide it.

Mrs. C. T. D.—Will you kindly send us the recipe for raisin puffs? We have not had a recipe for them.

Mrs. L. L.—The long wick oil-stove is best as the short wick burner is very slow. The New Perfection and the Quick Meal are two very reliable makes.

Mrs. K. C.—I will inquire about the enameled ware trays and let you know next week about them. I left out the cream puff recipe as we have so many now.

THIS WEEK'S POEM

WHAT DO you think of the truth of this week's poem? I am in much doubt myself. You remember that "There is more rejoicing in Heaven over the return of one sinner than over a whole congregation of the righteous."

Real strength comes through trial and often failure rather than exemption from either. "To him who overcometh, God giveth a crown. Come, let me know what you think.

A Personal Letter to the Readers of this Page from Theodore Roosevelt's Sister

EDITOR'S NOTE:—It is my great pleasure this week to have printed the following letter, written by Mrs. Corrine Roosevelt Robinson, to readers of our department. Mrs. Robinson is the sister of Col. Theodore Roosevelt, one of our great Americans, soldier, patriot and former president. I asked Mrs. Robinson to write a personal letter to the farm women of Michigan, and as she is a very busy woman, a writer on public affairs and a very interesting public speaker, I feel very much pleased that she felt she could comply with my request. She is a charming and delightful lady, very gracious and very well informed on national affairs, as we would naturally expect the sister of Col. Roosevelt to be.

TO THE WIVES OF THE FARMERS OF MICHIGAN:—

My dear Fellow Citizens:—I have had the great pleasure, in my native state of New York, of coming closely in contact in my country home on the Mohawk Hills in Herkimer County, with the wives of the farmers in that vicinity, and I can say with absolute truth that there is no class of women for whom I have a greater respect. My brother, Theodore Roosevelt, used to say that there was only one thing better than a good man, and that was a good woman,—and especially the kind of good woman that the wife of a farmer has to be. So much of what is extremely hard falls upon the shoulders of a farmer's wife. Of all our many and varied types of citizen, the future of our country depends more upon the man and woman of the farmland than on any other class. They are really the backbone of our country. At this moment, there is much to discourage all people all over the world, insofar as the longed-for Peace has not yet brought prosperity and restfulness to any nation. I feel, however, that in this country, during the last few months, we have made real progress.

I believe that our President, Mr. Harding, has the good of our nation truly in his heart. I do not agree with him in all the steps that he has taken,—it would be difficult to agree with all that is undertaken by any administration,—but I feel most strongly that he has put at the heads of our various departments, able, intelligent and patriotic men who are doing their best to work out the difficult problems with which they are faced. The way in which we women can help best is to align ourselves with the political party, with the principles of which we feel we have the closest affiliation. Just as we work better for real religion inside some special church, so do we work better for our country inside some special party. Every citizen, and all women now bear the responsibility of that great name, should feel it their duty by their interest in public matters, to be more than a figure-head in the affairs of the nation.

Your friend,
Corrine Roosevelt Robinson.

LEMON PIE AND CREAM PUFF RECIPES

Lemon Pie

THE JUICE and grated rind of 1 lemon, 1 tablespoon of butter, 1 cup of sugar, beaten to a cream, 2 table-spoonsful of sweet milk, 4 eggs. Mix all together and pour in a crust lined pie plate and bake. When done beat the whites of two eggs with 2 table-spoonsful of powdered sugar; spread it over the pie and brown in the oven.—Mrs. M. S.

Lemon Pie

Beat 4 eggs, yolks only, with 1 cup of sugar, add 1-2 cup of water, 1-2 cup sweet milk, 1 tbs of cornstarch in cold milk. Grate into this the rind of one lemon, add pulp and juice of two lemons taking out the seeds, stir well. Line 2 tins with pastry, bake 15 minutes. Fill with the custard and use whites of eggs for meringue.—Mrs. B. M. C.

Cream Puffs

Put one cup of hot water and 1-2 cup of butter in a basin and place on the stove to boil. While boiling stir in one cup of sifted flour mixing until smooth; then set aside to cool. When cool put in 3 eggs not beaten. Stir until thoroughly mixed. Drop by spoonfuls in a buttered tin and bake in a quick oven for 25 minutes; the baking has much to do with the success of the cream puffs. This recipe makes 2 dozen puffs. Can be filled with anything you like best.—Mrs. H. L. Paw Paw, Michigan.

Cream Puffs

One cup boiling water poured on 1-2 cup of butter; 1 cup of flour, stirred into the boiling water and butter, let boil 2 minutes, let cool. Add 3 unbeaten eggs, beat well, bake 1-2 hour slowly at first. Bake on buttered tins until a golden brown. They will fall if not well baked. If a piece of the dough about the size of a walnut is dropped this recipe will make 1 1-2 dozen. Split one side with a sharp knife or shears. Fill with whipped cream or lemon filling and nicely frozen ice cream is good if served at once.—Mrs. F. M., Stanton, Mich.

FEW PIE HINTS

I WOULD like to thank L. S., Plerson, Mich., for the fried cake recipe. It was just what I had been wanting and makes the most delicious cakes! I am sure there are lots of treasured recipes in every home of the M. B. F. readers and if we could have one recipe from each home we could soon fill a good sized book.

Here are a few pie hints: A quarter teaspoon of baking powder added to the pie crust for one pie makes it tender and flaky.

When baking pies, bake two or more extra crusts. Then when you wish a fresh pie fill a crust with lemon, cream or chocolate filling. The crusts will keep fresh for a number of days if kept cool.

Cream filling I make as follows: For one pie, put 2 1-2 cups of milk over the fire to boil. While this is heating stir 2 heaping tablespoons of flour, (or 1 of cornstarch) and 1 cup of sugar together wet with enough water or milk to make a paste, add 1 beaten egg and 1 teaspoon of flavoring or else the grated rind of 1-2 lemon or 1-3 orange. When the milk boils, stir this mixture into it and let cook until thick, stirring constantly. Pour into a crust and let cool.

Chocolate filling is made the same way except that 2 heaping tablespoons of cocoa are added dry to the sugar and flour and no flavoring is used. The white of the egg is used for meringue for the top.

When making chocolate pie, double the recipe, fill one crust and pour the rest into oatmeal dishes and let cool. Served with milk or cream this makes a delicious pudding. So much for pies.

If you wish to drain your dishes instead of wiping them and have neither sink nor drainer, you can make a drainer from an old milk pan by punching holes in the bottom and nailing three or four spoons on the under side. Set this in a larger pan. Your glasses and silverware will not drain very well so it is best to wash them first and wipe them, then the last of the dishes can be placed in the drainer and good hot water poured over them. If you family isn't too large it is easier to stack up your supper dishes and wash them with the breakfast dishes in the morning, if you have a drainer.

Now I would like to ask our editor to please send me one of those bulletins on the Community Egg Circle, if they are not gone, and then I will close this long letter hoping to see more letters in the future issues of M. B. F.—Mrs. F. M. B., Tuscola County

SOUR CREAM PATTIES RECIPE

SEING a request in last week's M. B. F. for a recipe for cream puffs, thought I would send one in. Have used it for years and it is a good one. Am also sending a few other recipes which I use often and hope others will try them. Would also like to ask if the enamel ware tables for children's high-chairs can be purchased. Would like to get one if possible, as I consider the other kind very unsanitary, and would appreciate any information you could give me on them.

Sour Cream Patties

1 egg, 1 cup sugar, 1-2 cup of sour cream, fill up with sweet milk, 1 level t. s. soda, salt, 1 t. s. nutmeg, flour to make moderately stiff.

Stirred Graham Bread

4 cups buttermilk, 2 eggs, scant cup of sugar, salt, 2 t. s. soda dissolved in hot water, 6 cups graham, 2 cups white flour, add raisins if desired and bake 1 hour.

Have taken the paper for some time and it is sure the paper for the farmers.—Mrs. K. C., Howell, Michigan.

To Exterminate Dandelions.
Gasoline dropped into hearts of dandelion or burdock plants will kill same without injury to grass.

DEAR CHILDREN: As I sit here writing to you sounds come to my ears that cause me to wish I was a small boy again. Walking over to the window I see several boys in a bunch sitting on their heels. In a moment they straighten up quickly and scatter in all directions. The next moment there is a bang! They are lighting firecrackers. What fun I had when a small boy! When I first began to shoot firecrackers I wanted to hold them in my hand as I had seen larger boys do but my mother told me how many children had had their fingers blown off so I never did it. When I got older I saw boys who had their fingers or hands blown off in that way and I was glad I had paid attention to what my mother had said. It always pays best to do as our mothers and fathers tell us because they are older and know the best thing or way to do.—UNCLE NED.

OUR BOYS AND GIRLS

Dear Uncle Ned: I am a girl thirteen years of age and in the seventh grade. Our school was out May sixth and the last day of school we had a picnic. We had sandwiches, cake, pie, cookies, lemonade, dry beef, salad, pickles, and beans and we played games. In the afternoon there was a ball game in Volney and all us school children went to it. I have three hens and twelve little chickens. My mother has two hundred little chicks. I have one sister. She is fifteen years old and in the tenth grade at school. We have two little kittens. I have a calf. Its name is Blossom. Our roses are out and I think they are very pretty. I live on a farm of eighty acres. I have brown hair and blue eyes and I am four feet and eleven inches tall. I wish some of the girls would write to me.—Margaret Peterson, R 1, Bileley, Mich.

Dear Uncle Ned: May I have room for this letter? I hope it is not too long to be printed anyway. I am a girl 13 years old in the seventh grade. I have four brothers and no sisters. You or some of the girls and boys may be lucky and have sisters. For pets I have a cat who we call Scat. Some cats would run away if you said "scat" to them but ours doesn't. We live on a large farm. We have 5 horses, 3 cows

and one calf. We have quite a few little "biddies" and some big chickens. We also have some turkeys too. Here is a prize offer to every girl who writes to me I will send her a big long letter and my photograph. Now see how many letters I receive in less than 2 weeks.—Your new niece, Gladys C. Miller, R 4, Shepherd, Mich.

Dear Uncle Ned: I am a girl eleven years old. My birthday was the tenth of March. Our school let out the 27th of May, and I will be in the seventh grade next year. I think it is very nice of the M. B. F. to set a page aside for the girls and boys, don't you? I will close with a story. Hoping to hear from the members of the Children's Hour.—Nina Stuever, Capac, Mich.

Peter and Paul read in a paper that for selling twenty-four pictures they would receive a moving picture machine. They told their mother about it and she said "You will have to ask your papa about that." When they asked their papa about it he said "No, my sons, I am afraid not."

They burst out crying and said, "I don't see why not." "Well, I'll tell you, people wouldn't buy from you unless they were a member of the family, and I would not let you ask 25c for an ugly picture that is not worth one cent," said their papa. "Well let me have a paper route," said Peter. "No, you would have to get up too early in the morning," said his father, "but if you haven't been late for breakfast once during the week I will give you twenty-five cents." "Well I'll try but I think it is a pretty poor way to earn money," said Peter.

Dear Uncle Ned: Having never written to you before I thought I would try my luck and see if my letter would be in print. We moved about a month ago and having read your letter about writing stories instead of the same thing I thought I would tell you about our moving. After we were all packed we took our Ford and hauled great big loads of the small goods in it. After making several trips we hired a truck to take the furniture. It was only six and one-half miles. When we went back after our cat he couldn't be found so we had to let him go.—Miriam Simpson, Boyne City, Michigan.

The Children's Hour

Dear Uncle Ned:—I am a girl 12 years old and in the 6th grade at school. I go to school every day when I am not sick. I have dark hair, blue eyes and light complexion. I would like to join your merry circle. May I? I live on an 80 acre farm. We have 4 horses, 11 head of cattle, about 100 chickens and some ducks. My father takes the M. B. F. and likes it fine. I like the children's page best of all. I will close with love to Uncle Ned and the children. Hope some of the boys and girls will write to me. I will answer all letters.—Margaret A. Cosens, Akron, Mich., R-3.

Dear Uncle Ned:—May I join your merry circle? I am a farmer girl 11 years old and in the sixth grade at school. I have never written before. I live on a 135 acre farm. We have 3 horses, 5 cows and one calf. For pets I have a cat and a Shetland pony. My father has a Ford tractor, a truck and a touring car. I live a mile and a half from school. I have two sisters and one brother. I like to see the Doo Dads and the letters and hope to see my letter in print. —Lois Amos, Owosso, Mich., Route 8.

Dear Uncle Ned:—Here is another who wishes to join your merry circle. I am a girl 12 years old and in the 6th grade. My father takes the M. B. F. and likes it very much. We live on an eighty acre farm. We have 3 horses, 1 colt, 6 cows, 80 hens, 10 pigs and 4 rabbits. I have two brothers and three sisters.—Margaret Phetteplace, Decker, Michigan, Route 2.

Dear Uncle Ned:—I am a little girl seven years old and in the third grade. We take the M. B. F. and think it is very nice. My mamma reads the letters to me every week and I like to hear them. For pets I have a dog named Fluffy and a kitten named Mitty. I wish some of the boys and girls would write to me and I would be sure and answer their letters.—Georgia Kaser, Montgomery, Michigan.

Dear Uncle Ned:—This is another farmer girl who would like to join your merry circle. My mother has a nice garden this year. We had lots of strawberries this year, and I think we will have lots of raspberries if they don't dry up. We have red beets, radishes, onions, blackberries, lettuce, peas, pickles,

beans, celery and cabbage in our garden. I would be very glad if some of the girls and boys would write to me. I would answer every one of their letters. We are hoeing corn now and will be done soon. As ever, your niece.—Clara Weber, Freeland, Michigan.

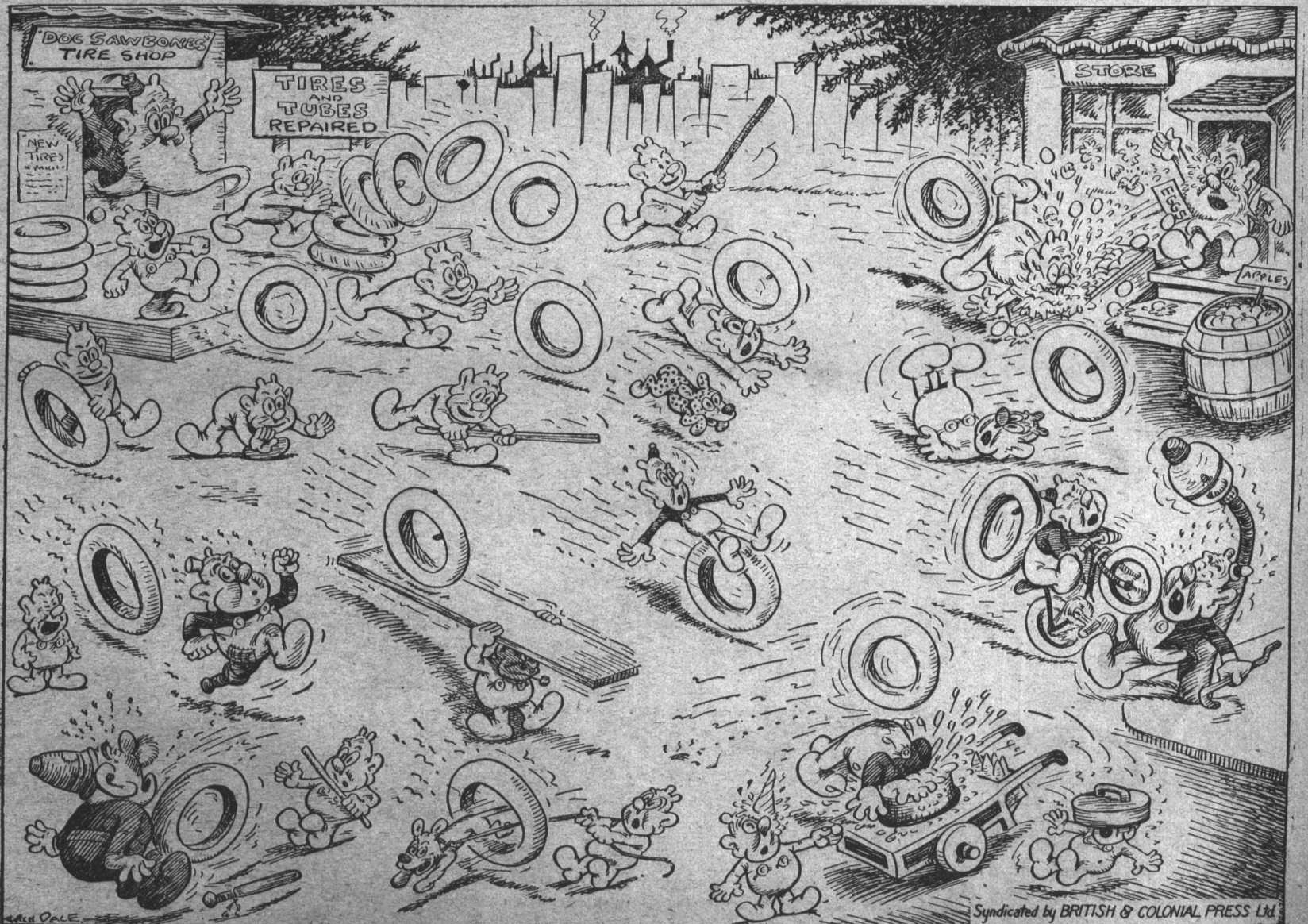
Dear Uncle Ned:—May I join your merry circle? I am a girl 13 years old and have passed into the 7th grade. I live in the country and like farm life very much. We have 2 horses, 1 cow, 24 chickens and 4 pigs.—Ida Rittercamp, Bay City, Mich., Route 4.

Dear Uncle Ned:—I have read the Children's Hour page and have liked it very much. I am a farmer's daughter, 14 years old. I have 5 sisters and 4 brothers. We live on an eighty acre farm. My father takes the M. B. F. and likes it very well. I wish some of the girls would write. I will answer all letters.—Lois Garver, Harbor Springs, Michigan.

Dear Uncle Ned:—I am a farmer boy, and my father has 3 head of cattle, 5 horses and 1 pig. For pets I have a big cat and 11 rabbits. I have four brothers and two sisters. My brother takes the M. B. F. and likes it very much. I am 12 years old and in the sixth grade at school. I would like to have some of the boys and girls write to me.—George Nichols, Thompsonville, Mich., R-2.

Dear Uncle Ned:—May I join your merry circle? I am a girl ten years old and go to school every day and am in the fifth grade. We live on a farm of 400 acres. I read the Children's Hour and also the Doo Dads. They are very funny little fellows. I have two sisters and no brothers. I wish some of the boys and girls would write to me. I would be sure to answer their letters. For pets I have a bird, a dog and four cats. We have some goslings and chickens. Will close with a riddle: What will go up the chimney down that will not go down the chimney up? Answer, Umbrella.—Your niece, Corrine Herzog, Six Lakes, Michigan.

Dear Uncle Ned:—I am a little girl 8 years old, and next year I will be in the fifth grade. My father takes the M. B. F. and I like it very much. I think the Doo Dads are funny little fellows. I like to read the letters from the boys and girls so I thought I would write my first letter this morning. I have 3 brothers and 2 sisters and we live on an 80 acre farm. We have a big dog named Rover. We have 65 little chicks, 9 head of cattle, 4 horses and 12 sheep, also 5 big pigs and two little pet pigs. As my letter is getting long, I will close. Wish some of the girls and boys would write to me.—Martha Badour, Au Gres, Mich., I-1.



THE DOO DADS are thing people this week, at least they seem to be very busy with automobile tires. Doc Sawbones opened a repair shop and laid in a good stock of tires and tubes. Of course this was too good an opportunity for fun for the Doo Dads to leave alone. They helped themselves to Doc's tires and certainly made things lively for a while. The

tires would do the funniest tricks you know. They acted just as if they knew they were in the mischievous land of Doo. The ice cream man was upset very neatly into his wagon. We are sure that he would have a nice

Wouldn't it Tire You?

cold bath at any rate. Roly was out exercising on his brand new bicycle and when an unmannerly tire bumped into him he lost control of his wheel and ran into old man Grouch. Roly was getting a free ride without hav-

ing to work for it. Fianneft looks as if he might be willing to arrest someone for upsetting him in such a manner. Sleepy Sam is moving faster this week than we have seen him move for a long time. The storekeeper will be able to sell scrambled eggs if he can ever pick up the remnants of the eggs in the box.

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BREEDERS' DIRECTORY

(SPECIAL ADVERTISING RATES under this heading to honest breeders of live stock and poultry will be sent on request. Better still write out what you have to offer, let us put it in type, show you a proof and tell you what it will cost for 13, 25 or 52 times. You can change size of ad. or copy as often as you wish. Copy or changes must be received one week before date of issue. Breeders' Auction Sales advertised here at special low rates; ask for them. Write today!) BREEDERS' DIRECTORY, THE MICHIGAN BUSINESS FARMER, Mt. Clemens, Michigan.

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, Mt. Clemens, Mich.

Oct. 21, Holsteins. Howell Sales Co., Howell, Mich.

LIVE STOCK AUCTIONEERS

Andy Adams, Litchfield, Mich.
Edi Bowers, South Whitley, Ind.
Forster Colestock, Easton Rapids, Mich.
John Hoffman, Hudson, Mich.
D. L. Perry, Columbus, Ohio.
J. E. Post, Hillsdale, Mich.
J. E. Ruppert, Perry, Mich.
Harry Robinson, Plymouth, Mich.
Wm. Waffie, Coldwater, Mich.
John P. Hutton, Lansing, Mich.
G. A. Rasmussen, Greenville, Mich.

CATTLE

HOLSTEIN-FRIESIAN

USE PURE BRED SIRES

Estimates furnished by the Dairy Division of the United States Department of Agriculture show that the dairy cows of the country average only 4,500 lbs. of milk per year.

A good Holstein bull will increase the production of the ordinary herd 50 per cent in the first generation.

Let us help you find a good one to use on your herd. You cannot make a better investment.

MICH. HOLSTEIN-FRIESIAN ASSOCIATION

Old State Block Lansing, Mich.

SHOW BULL

Sired by a Pontiac Angus Korndyke-Hengerveld DeKol bull from a nearly 19 lb. show cow. First prize junior calf, Pontiac Fair, 1920. Light in color and good individual. Seven months old. Price, \$125 to make room. Hurry!

Herd under Federal Supervision.

BOARDMAN FARMS

JACKSON, MICH.

Holstein Breeders Since 1906

BULL CALVES Sired by SEGIS FLINT

Hengerveld Lad. The average records of his four nearest dams are 33.12 lbs. butter and 730 lb. milk in seven days from A. R. O. dams representing the leading families of the breed with records up to 29 pounds in seven days. Priced to sell.

L. C. KEYZLER
Flint, Mich.

WOLVERINE STOCK FARM REPORTS GOOD sales from their herd. We are well pleased with the calves from our Junior Herd Sire "King Pontiac Lundie Korndyke Segis" who is a son of "King of the Pontiacs" from a daughter of Pontiac Clothilde De Kol 2nd. A few bull calves for sale. T. W. Sprague, R. 2, Battle Creek, Mich.

I AM OFFERING LIGHT COLORED HOLSTEIN-FRIESIAN bull 1 year old from 21.51 lb. dam and sire whose six nearest dams are 33.34 lbs. butter. Herd under state and federal supervision. Oscar Wallin, Wiscogin Farm, Unionville, Mich.

Registered Holstein Bull

Sired by a son from King Ona and from a 22 lb. cow, \$90 delivered your station. Write for pedigree.

EARL PETERS, North Bradley, Mich.

Yearling Bull For Sale

Bull born Sept. 28, 1919, evenly marked and a fine individual. Sired by my 30 lb. bull and from a 20 lb. daughter of Johan Heng. Lad, full sister to a 32 lb. cow. Dam will start on yearly test Nov. 15.

ROY F. FICKIES
Chesaning, Mich.

HERD SIRES IN SERVICE

KING ZERMA ALCANTRA PONTIAC NO. 143461 a son of the \$50,000 bull. SIR ECHO CLEDE NO. 247367 a double grandson of MAY ECHO SYLVIA the champion cow of Canada.

I am offering a yearling son of King from a cow with a 7 day A. R. O. of 18.48 butter, 427.8 milk. Next dam 15.11 butter, 387.8 milk. Price \$150. Also some yearling grand daughters of KING Price \$150 each. Pedigrees sent on request.

H. E. BROWN, Breedsville, Mich.
Breeder of Registered Stock Only

SOME GOOD YOUNG REGISTERED HOLSTEIN cows. Fair size, good color, bred to good bulls and due from July to December. Mostly from A. R. O. stock, prices reasonable and every one guaranteed to be exactly as represented.

M. J. ROCHE
Pinckney, Mich.

7 YEARLING BULL BARGAINS

Sired by Segis Korndyke De Nijlander, a 32 lb. son of a twice Michigan ribbon winner. Her dam, 29 1/2 lbs. Dams are daughters of King Segis Pontiac, a 37 lb. son of King Segis. Records 18 lbs. to 30 lbs. Priced at half value, \$100 up. Federally tested June 16. Write for list.

ALBERT G. WADE, White Pigeon, Mich.

SOLD AGAIN

Bull calf last advertised sold but have 2 more that are mostly white. They are nice straight fellows, sired by a son of King Ona. One is from a 17 lb. 2 yr. old dam and the other is from a 20 lb. 3 yr. old dam, she is by a son of Friend Hengerveld De Kol Butter Boy, one of the great bulls.

JAMES HOPSON JR., Owosso, Mich., R. 2.

HOLSTEINS FOR SALE—EITHER SEX. Bulls ready for heavy service from dams with A. R. O. records up to 31 lbs. Also bull calves with same blood. They are all fine individuals and nicely marked and priced to sell. Also a few well bred females.

D. H. HOOVER, Howell, Mich.

FOR SALE—TWO BULL CALVES, A HOLSTEIN and Durham about 3 months old. Both have heavy milking dams. Not registered. \$50 each if taken at once.

CHASE STOCK FARM, Marlette, Mich.

A ROYALLY BRED BULL Born Nov. 13, 1920. Mostly white. Sired by a 30 lb. son of King of the Pontiacs dam a 15 lb. 2 yr. old granddaughter of Pontiac De Nijlander, whose records are 31.43 at 5 1/2 yrs. 32.73 at 4 1/2 years and 30.11 at 3 1/2 years put her in the first rank as a producer. First check \$150 gets him. Herd Federally Supervised.

BRANDONHILL FARM, Oronville, Mich.

GLADWIN COUNTY PURE BRED LIVESTOCK Association. Holstein, Jersey, Shorthorn and Hereford cattle; Duroc-Jersey, Poland China and Hampshire hogs; Oxford, Shropshire, Hampshire sheep.

A place to buy good breeding stock at reasonable prices.

FRED B. SWINEHART, C. E. ATWATER,
President, Secretary,
Gladwin, Mich.

Fairlawn Herd—Holsteins

Hire Sire, Emblaguard Little Champion 108073. His sire's dam Colantha 4th's Johanna, world's first 35 lb. cow, and world's first 1,200 lb. cow. The only cow that ever held all world's butter yearly milk record at the same time. His dam records from one day to one year, and the world's Little Pieba De Kol No. 93710, over 1,150 lbs. of butter from 20,599.4 pounds of milk in a year. World's 2nd highest milk record when made and Michigan state record for 6 years. Only one Michigan cow with higher milk record today. His two nearest dams average:

Butter, one year 1,199.22

Milk 28,575.9

Champion's sons from choice A. R. O. dams will add prestige to your herd and money to your purse.

J. F. RIEMAN, Owner
Flint, Mich.

LAKEVIEW DAIRY FARM HOLSTEIN-FRIESIAN Herd sire Paul Pieterie Wans. Prince. Two nearest dams average 31.9 lbs. butter, 672 lbs. milk in 7 days. Dam milked 117 lbs. in one day; 3,218 lbs. in 30 days; 122.37 lbs. butter in 30 days. His bull calves for sale. One from a 22 lb. two-year-old. Good individuals. Prices reasonable. Age from 2 to 5 months.

E. E. BUTTERS, Coldwater, Mich.

A PROVEN BLOOD LINE

KING SEGIS transmitted to his sons the power to transmit to their daughters the greatest of production over long periods. It is his offspring that has recently made the greatest yearly production ever dreamed of, 37,391.4 pounds of milk in a year.

We have for sale at moderate prices beautiful individuals of show type KING SEGIS bulls.

GRAND RIVER STOCK FARMS

111 E Main, Corey J. Spencer, Owner
Jackson, Mich.
Under State and Federal Supervision

TWO BULL CALVES

Registered Holstein-Friesian, sired by 39.87 lb. bull and from heavy producing young cows. These calves are very nice and will be priced cheap if sold soon.

HARRY T. TUBBS, Elwell, Mich.

REGISTERED HOLSTEIN CATTLE

For sale. From calves to full-aged cows.

F. E. GOODAR, Richmond, Mich.

FOR SALE—2 REG. HOLSTEIN BULLS ready for service from 19 1/2 and 24 1/2 lb. dams. Price \$100 and \$125. Herd on accredited list.

Wm. GRIFFIN, Howell, Mich.

HEREFORDS

REGISTERED HEREFORD CATTLE—KING REPEATER 713941, and Beau Perfection 327809 head our herd. Bulls are sold; have some very fine heifers for sale, bred or opened, bred to our herd bulls. Come and see them; they will please you.

Tony G. Fox, Prop., Henry Gehrmel, Herdsman,
MARION STOCK FARM, Marion, Michigan

FOR SALE—SMALL HEAD OF REG. HERFORDS. Belvidere 569760, heads the herd.

RALPH S. SMITH, Kewadin, Mich.

HEREFORD CATTLE AND HAMPSHIRE HOGS

We can furnish registered bulls from 12 months and older, best of breeding and at a very low price, have also some extra good Herd headers. We have also a large line of registered Hampshire Hogs, Glits, Sows and Boars.

Write us, tell us what you want and get our prices.

LA FAYETTE STOCK FARM, La Fayette, Ind.
J. Crouch & Son, Pres.

150 HEREFORD HEIFERS. ALSO KNOW of 10 or 15 loads fancy quality Shorthorns and Angus steers 5 to 1,000 lbs. Owners anxious to sell. Will help buy 50c commission.

G. F. BALL, Fairfield, Iowa

CONTROL MEASURES TO EMPLOY IN FIGHTING GRASSHOPPERS

(Continued from page 4)

follows: Wheat bran, 25 pounds; Paris green, 1 pound or white arsenic 1 pound; lemons or oranges, 6 finely chopped fruits; low-grade molasses, such as refuse from sugar factories, or cattle molasses, known as "black strap," 2 quarts. The bran and Paris green or other arsenical are thoroughly mixed while dry the fruits are then finely chopped and added, and lastly the molasses is poured over the bait and the whole thoroughly kneaded. A coarse-flaked bran is most desirable although where this can not be obtained easily ordinary middlings or alfalfa meal may be substituted; a low-grade, strong-smelling sirup or molasses, however, is essential to the entire success of the undertaking. Crushed ripe tomatoes, water-melons, or limes may be substituted for the lemons or oranges, if necessary. Ordinary powdered white arsenic (arsenious acid) contains nearly twice as much arsenic as Paris green and is comparatively low in price. The powdered form of arsenate of lead may be used, but in this case twice as much of it must be used as of the Paris green. In California and other semiarid regions water should be added to the bait at the rate of 4 gallons to 25 pounds of bran, as in these climates the bait dries out very rapidly and the extra moisture is necessary in order to attract the grasshoppers.

Another effective bait of similar character is the modified Criddle mixture. This is prepared as follows: Fresh horse droppings, one-half barrel; Paris green, 1 pound, or powdered white arsenic, 1 pound; finely chopped oranges or lemons, 6 to 8 fruits. This bait must be thoroughly mixed before being distributed and as most people object to handling this mixture with the bare hands, a pair of cheap rubber gloves may be used for the purpose. Both the poisoned bran bait and the modified Criddle mixture are distributed over the infested fields by sowing broadcast, either on foot or from a light wagon or buggy.

In applying the poisoned bran bait in orchards, care must be taken to avoid distributing it close to the trees, because severe injury to fruit trees occasionally results from such applications of arsenical poisons.

Proper Time for Applying the Poisoned Baits

The time of day chosen for distributing the poisoned baits has an important bearing upon the results secured. In California and other semi-arid regions the bait should be distributed in late afternoon or early evening, just before the grasshoppers ascend the plants on which they usually pass the night. They are apparently hungry and thirsty at this time and greedily take the bait if it be available. In the moist portions of the country, such as New England and Florida, the bait is best applied early in the morning in order that the best results be secured. Farmers should not be discouraged if the grasshoppers do not drop dead immediately upon eating the poison, as it usually takes from one to five days for the full effect of the baits to become apparent.

SIGNS OF OIL

(Continued from page 5)

terraces, depending upon their particular shape, are found to be controlling factors in causing accumulations. Where the rocks are exposed as in Wyoming, the anticlines can be discovered by ordinary field investigation. In regions where the rocks are concealed the structures can be discovered only through the study and comparison of the records and samples of wells in a given area.

On Seul Choix Point, fifteen miles east of Manistique in Schoolcraft county, the rocks are exposed and show a definite arching of the strata. A known oil and gas bearing formation, the "Trenton" limestone occurs

in this region at depths between 1,000 and 1,200 feet. The presence of the anticline, a known oil formation, and the comparative shallow depths gives the vicinity of Seul Choix Point certain possibilities. Whether or not the anticline has caused an accumulation, that is a pool, cannot be told in advance of the drill.

Most of the signs reported to the office are spurious, that is the so-called oil skum or film is nothing more than a film of iron oxide which is very common around springs and wet places. In a number of instances however, these films have proved to be due to oil. In swampy land and marshy places small quantities of inflammable gas have been reported. In nearly every case such gas "seepages" have been proved to be nothing but marsh gas due to decomposition of vegetable matter under water.

Such occurrences of marsh gas are in no way related to oil and gas deposits in the underlying rocks. We have a number of springs and many shallow water wells which yield true natural gas. One of the most noteworthy groups of small shallow surface gas wells occurs in the vicinity of Warren and Royal Oak. For many years farmers have utilized these surface gas supplies for heating and lighting purposes. In Alcona and Montmorency there are some very large gas seepages. They occur in connection with springs.

In summary it may be stated that while oil and gas seepages in Michigan are relatively common especially in certain areas they are generally of very little significance or importance so far as indicating the presence of commercial quantities of oil and gas. With a proper understanding of the significance of surface signs in Michigan most of the promiscuous drilling in the state would not have been made.—R. A. Smith, State Geologist.

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.

Collection Box Report, June 30, 1921

Total Claims Filed	655
Amount Involved	\$3,985
Total Claims Settled	376
Amount Secured	\$4,937

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

CRANDELL BOBS UP AGAIN

As my father is a subscriber of your paper I wish you would oblige me by making Harry T. Crandell of Cass City, Michigan, settle accounts with me. I bought a pure bred O. L. C. gilt which he said was to farrow in May. She hasn't farrowed yet and I have written him three times and he hasn't answered. I wrote the first time in May. I don't think the gilt will farrow before a month from now if she does them. I received the hog April 11th. As I am a boy and got this hog for pig club work I wish you would have him make it right. Thanking you.—G. G. Hart, Michigan, June 17, 1921.

We pride ourselves on our success in inducing people to come across when we present the just claims of our subscribers, but when it comes to Harry T. Crandell of Cass City, we simply throw up our hands. To say the least it's too bad that ambitious boys like you who buy pigs for such worthy purposes, should have such difficulty in getting a square deal but if you had carefully read previous issues of the BUSINESS FARMER you would not have gotten into this mess with Crandell. By the way "G. G." you didn't order your pig from Harry's ad. in the BUSINESS FARMER. He'd have hard work breaking into our advertising columns with a crow-bar.

Cut Rates

"Please, ma'am, give a poor blind man a dime."

"Why, you're only blind in one eye!"

"Well, make it a nickel then."

FARM BUREAU NOTES

(Continued from page 3)

ers of farm bureau states of the nation will be the establishment of farmer-owned and controlled commission companies. This was decided at the third session of the farmers' livestock marketing committee of fifteen held in Chicago recently.

The Utah Farm Bureau wool pool has reached approximately a half million pounds and additional shipments are being made daily according to an announcement by D. D. McKay, chairman of the marketing committee of the Utah State Farm Bureau and Utah Wool Growers, Inc.

On March 4, 1920, which marks the launching of the national organization, the farm bureau membership totaled 456,000. On December 1 of the same year this total had increased to 744,401 and the last accounting on June 1 showed the remarkable total of 1,052,114.

The preliminary work of the U. S. Grain Growers' Inc., is going on rapidly and in a very satisfactory manner. The training of organizers has actually begun in Missouri and Nebraska.

IMPORTING FOREIGN CLOVERS

MILLIONS of pounds of southern grown French and Italian clover seed, imported into this country within the past year, constitute a menace to American farmers, says the state farm bureau, which is now waging a vigorous seed campaign to insure that Michigan farmers will be protected from that sort of thing, both by seeing to it that good seed is available and by setting the standard for Michigan seed so high that all seed distribut-

ing organizations will have to come up to it.

Farm bureau figures show that within the past year approximately 15,000,000 pounds of foreign clover seed unadapted to the rigors of the northern winters, has been dumped upon the American market and today is being broadcasted over the country. During the 11 months ending May 31, more than 13,000,000 pounds arrived. In the week ending June 4 the figure jumped to 2,165,000 for the week.

Such seed, says the farm bureau, will not stand the rigors of even a Virginia winter. This was proved by the Virginia department of agriculture and emigration. Indiana declared the French and Italian clover seed utterly unfit for her conditions. Under ordinary conditions of seed purchase, the farmer has no way of telling what he is getting and stands a fair chance of picking up some bad seed.

The farm bureau has two plans for protecting Michigan farmers—by setting an example in guaranteeing all of its seed, and being able to furnish upon request the name of the grower, and by seeing to it that there is available in the state plenty of adapted, northern grown seed that will grow in Michigan. Sweden is said to set the world an example by staining all imported seed as a matter of protection to her farmers.

IOWA HAS LARGEST BUREAU MEMBERSHIP

IOWA has the largest farm bureau membership in the American Farm Bureau Federation which is 118,000. Illinois is second with over 110,000; Ohio and Texas each have over 100,000, which Michigan and Indiana follow with nearly 100,000 each. The American Farm Bureau Department of Organization has set its quota at 1,250,000 members by December 1, 1921.

Current Agricultural News

BIG TIME AT M. A. C.

EAST LANSING, June 24.—We are having a busy week at the Michigan Agricultural College. The Michigan Farmers' Automobile Tour has been camping here for two days. The Rural Preachers are here. The State Veterinarians are on the job. A joint conference on consolidation of schools and economic problems of agriculture is in session.

Through the efforts of the college experts are brought here to instruct and inspire these various groups.

Dr. T. N. Carver of Harvard University, a deep thinking economist, is forcing us all to think more than we have ever done before on the fundamental work of the farmer and his family, in building the strong nation. Dr. R. W. Gammon of Chicago has been touching up the ministers on the matter of religious education for rural communities.

Hon. Lee Driver, with his illustrated lecture has been driving home the lesson of the consolidated school. Mrs. Dora Stockman, of the State Grange with her splendid enthusiasm and bent for leadership is a real booster. Added to these, A. B. Cook, Hale Tennant, Dr. Eben Mumford and many others contributed their bit.

This is the day of organization; the Farmers' Club, the Gleaners, the Grange can find a common ground at the college. In a friendly round table they can meet together and work out solutions for the farmers problem that otherwise would not be possible. They are all stronger for working together and no single farmer can afford to flock alone. If we farmers don't hang together, we will hang separately and the whole blooming thing will go hang, nation and all. If the farmer ever expects to set his own price on his own stuff as the manufacturers and merchants do, now is the time to get busy.

The farm bureau needs every farmer and every farmer needs the farm bureau. The Grange and the Gleaners both have a real place. If there are any scruples about secret

organizations, the Farmers' Club is a form of organization that can be had in any community and organized subject to local control. There is no excuse for the farmer not to be organized. All these organizations can find expression through the college and the farm bureau.—W. A. Cutler, Grass Lake, Mich.

LIVINGSTON RESIGNS AS BUREAU OF MARKETS CHIEF

GEORGE Livingston, Chief of the Bureau of Markets, United States Department of Agriculture, has resigned effective July 1, according to an announcement by the Department of Agriculture. In tendering his resignation to Secretary Wallace Mr. Livingston explained that "I must give due consideration to my personal welfare." Mr. Livingston said last week he had under consideration several business opportunities but that he had not yet made a decision with regard to them. A successor to the markets chief has not yet been named and Secretary Wallace has asked Mr. Livingston to continue to assist the department for a few months as a consulting specialist in marketing.

In his letter of resignation Mr. Livingston said he had been planning for some time to leave the government service. At the same time he said he regretted to leave because "I feel that the work which is being carried on here is of far reaching importance to the agricultural interests of the country."

OVER 18,000,000 ACRES OF WHEAT IN CANADA

THE TOTAL area estimated to be sown to wheat in Canada for the harvest of 1921 is 18,655,100 acres, according to preliminary estimates issued recently by the Dominion bureau of statistics. Last year's final estimate was 18,232,374 acres, and the average of five years from 1915-1919 was 16,342,969 acres. The estimate for fall wheat is 709,100 acres for this year and the area under spring wheat 17,845,000 acres.

BREEDERS' DIRECTORY

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LAKESIDE HEREFORDS JUST TWO
They are good ones. High class females, all ages. Best of blood. Come and see.
E. J. TAYLOR, Fremont, Mich.

RIVERVIEW HEREFORDS FOR SALE
A grandson of the \$9,500 Bullion 4th. Also a few females.
Wm. C. DICKEN, Smyrna, Mich.

HEREFORDS FOR SALE. WE HAVE BEEN
breeders of Herefords for 50 years. Wyoming 9th, 1920 International prize winner heads our herd. Have 5 choice yearling bulls, 8 yearling heifers and a few choice cows for sale. Let us know your wants.
CRAGO FARM, Swartz Creek, Mich.

SHORTHORN

FOR SALE ONE EXTRA GOOD 18 MOS.
old Red Scotch bull suitable to head pure bred herd. Also several cows and heifers carrying the service of a son of Imp. Lorne who was twice grand champion of Michigan.
A. P. OTTO, Charlotte, Mich.

SHORTHORNS FOR SALE—BULLS OLD
enough for service; also a few cows and heifers.
W. S. HUBER, Gladwin, Mich.

SHORTHORNS COWS, HEIFERS, BULLS
offered at attractive prices before January first. Will trade for good land.
Wm. J. BELL, Rose City, Mich.

3 EXTRA GOOD BULL CALVES FOR SALE.
From the Maple Ridge herd of Bates Short-horns. Calves in September 1920.
J. E. TANSWELL, Mason, Michigan.

SHORTHORN CATTLE AND OXFORD DOWN
sheep. Both sex for sale.
J. A. DeGASMO, Muir, Mich.

KENT COUNTY SHORTHORN BREEDERS'
Ass'n are offering bulls and heifers for sale, all ages. Sell the scrub and buy a purebred.
A. E. RAAB, Sec'y, Caledonia, Mich.

CENTRAL MICHIGAN SHORTHORN BREED-
ers' Association offer for sale 75 head; all ages, both milk and beef breeding. Send for new list.
M. E. MILLER, Sec'y, Greenville, Mich.

FOR SALE—REGISTERED SHORTHORNS
and Duroc Jersey spring pigs, either sex; two red bulls, one 11 months and one 5 months old. Several heifers from 6 months to 2 years old. Scotch Top and Bates bred. Address
GEORGE W. ARNOLD or JAMES ARNOLD
Williamsburg, R. 1, Michigan

THE VAN BUREN CO. SHORTHORN BREED-
ers' Association have stock for sale, both milk and beef breeding.
Write the secretary,
FRANK BAILEY, Hartford, Mich.

RICHLAND SHORTHORNS
Herd built for quick sale. Fair Acres Good and Collier Cullen 5th. Both span five year olds and tried first.
Best of blood lines and show prospects.
Both quiet to handle.
A real bargain.
Write for particulars.
C. H. Prescott & Sons
Tawas City, Mich.

BUY SHORTHORNS NOW, 4TH ANNUAL
herd test without a reactor. Some bargains in bulls.
JOHN SCHMIDT & SON, Reed City, Mich.

ANGUS

The Home of
Imp. Edgar of Dalmeny
Probably
The World's Greatest
BREEDING BULL

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

The Junior Champion Bull, Junior Champion Female, Champion Calf Herd and First Prize Junior Heifer Calf, Michigan State Fair, 1920, were also the get of Edgar of Dalmeny.

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

Send for Illustrated Catalogue.

WILDWOOD FARMS
Onton, Mich.

W. E. Scelpps, Prop., Sidney Smith, Supt.

BARTLETT'S PURE BRED ABERDEEN-ANGUS CATTLE AND P.O.C.
Swine are right and are priced right. Correspondence solicited and inspection invited.
CARL BARTLETT, Lawton, Mich.

REGISTERED ABERDEEN-ANGUS—BULLS,
Heifers and cows for sale.
Priced to move. Inspection invited.
RUSSELL BROS., Merrill, Michigan

JERSEYS

JERSEY YEARLING BULL (Sired by PEN-
hurst Fern Sultan, R. M. Breeding.
J. F. MORRIS & SON, Farmington, Michigan

ONE OF OUR MAJESTY BULLS WOULD IM-
prove your herd.
FRANK P. NORMINGTON, Tonia, Mich.

REG JERSEYS HEIFERS 1 YR. OLD—
Young cow in milk sired by Majesty's Oxford Shrook 156,602 also young bulls sired by Frolic's Master Pops 177,683, a grandson of Pops 99th and Sophie 19th's Tormentor, two great bulls of the breed. Write for prices and pedigree.
GUY C. WALBUR, R. 1, Selding, Mich.

IF THE BULL IS HALF THE HERD, HOW
much would a son of Pops 99th's Duke 8th, who has 60 per cent blood of Sophie 19th, be worth to your herd?
Let me send you pedigrees and prices on bull calves from this bull and Sophie Tormentor cows.
FRED HAYWARD
Scotts, Mich.

HIGHLAND FARM JERSEYS ACCREDIT-
ed herd. High production, splendid type and breeding. Write us your wants.
Samuel Odell, Owner. Adolph Meeg, Mgr.
Shelby, Michigan

GUERNSEYS

GUERNSEY BULL CALF 7 MOS. OLD, SIRE,
Langwater Prince Charmante, A. R. 4 A. R. daughters average 416 lbs. fat 2 1-2 yrs. Dam: Lawton's Lady Lu, A. R. 416 lb. fat class A. A. (farmers class) 1 A. R. daughter, 409 lbs. fat D. D. Write
MORGAN BROS.,
Allegan, R. 1, Michigan

FOR SALE GUERNSEY HEIFER WITH
more than forty A. R. ancestors. Due Sept. 2, by a son of Abba of Riverside, record 14,201.10 lbs. milk, 816.12 lbs. butterfat. Herd tuberculosis tested. Send for sale list of females.
G. A. WIGENT, Watervliet, Mich.

AYRSHIRES

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

SWINE

POLAND CHINA

HERE'S SOMETHING GOOD

THE LARGEST BIG TYPE P. C. IN MICH.
Get a bigger and better bred pig from my herd, at a reasonable price. Come and see them. Expenses paid if not as represented. These boars in service: L's Big Orange, Lord Clansman, Orange Prince and L's Long Prospect.
W. E. LIVINGSTON, Parma, Mich.

BIG BOB MASTODON

Is sired by Caldwell Big Bob, Champion of the world. His dam Sire is A's Mastodon, Grand Champion at Iowa State Fair. Enough said. I have a fine September Boar Pig that will make a herd boar sired by Big Bob, and a fine lot of spring pigs when weaned. Book your order now.
C. E. GARNANT,
Eaton Rapids, Michigan.

HERE IS SOMETHING GOOD, BIG TYPE
Poland Chinas. One extra good large long big boned smooth gilt bred to Howley's Clansman. Price \$100. Also younger gilts \$30 to \$50.00.
HOWLEY BROS., Merrill, Mich.

FARWELL LAKE FARM

L. T. P. C. boars all sold. A few spring boars and some gilts left. Will sell with breeding privilege. Boars in service: Clansman's Image 2nd, W. B.'s Outpost and Smooth Wonder. Visitors welcome.
W. S. RAMSDALL,
Hanover, Mich.

B. T. P. C. A FEW TOP GILTS BRED TO
Highland Giant, the \$500 boar. Others bred to Wiley's Perfection. Weight, 700 at 18 months.
JOHN D. WILEY, Schoolcraft, Mich.

L. T. P. C. DOES YOUR NERVE SAY BUY
hogs? Vote yes and order a good one. Fall gilts \$30 to \$50; spring boars, \$15 to \$25. Two Prospect Yank gilts bred to Hart's Block Price March 24th at \$50 each.
F. T. HART, St. Louis, Mich.

LEONARD'S BIG TYPE P. C. BOAR PIGS
at weaning time, from Mich. Champion herd \$25 with pedigree. Satisfaction guaranteed. Call or write E. R. LEONARD, R. 3, St. Louis, Mich.

LARGE TYPE POLAND CHINAS. SPRING
pigs either sex sired by Wonder Bob, the by King of Giants. The big-boned, good-backed kind. Priced to sell.
WALTER McCAGNEY, R. A, Crosswell, Mich.

BIG TYPE POLAND CHINA BRED GILTS ALL
sold, but have some fall gilts at reasonable price. Will be bred for fall litters.
DORIS HOWER, Akeon, Mich.

GILTS ALL SOLD. SPRING PIGS Sired
by Jumbo Lad, an 800 lb. boar. One fine herd boar by Big Bob Mastodon.
DOWITT C. PIER, Exant, Mich.

L S P C—4 BOARS BY CLANSMAN'S IM-
age and Big Defender, that are extra good. Bred gilts all sold.
H. O. SWARTZ, Schoolcraft, Michigan.

BIG TYPE POLANDS. AM OFFERING TWO
good growthy fall gilts, from best sow in our herd.
W. CALDWELL & SON, Springport, Mich.

BIG TYPE P. C. SPRING PIGS EITHER SEX
from large growthy dams and sired by choice herd boars. Come and see our stock, prices reasonable.
L. W. BARNES & SON, Byron, Mich.

WALNUT ALLEY BIG TYPE P.
C. One gilt for sale with pig by the Grand Champion boar of Detroit, 1920, due May 8th. First check for \$75 takes her. Gilt is right, so is the price.
A. D. GREGORY
Tonia, Mich.

BREEDERS DIRECTORY

(SPECIAL ADVERTISING RATES under this heading to honest breeders of live stock and poultry will be sent on request. Better still write out what you have to offer, let us put it in type, show you a proof and tell you what it will cost for 13, 26 or 52 times. You can change size of ad. or copy as often as you wish. Copy or changes must be received one week before date of issue. Breeders' Auction Sales advertised here at special low rates: ask for them. Write today!) BREEDERS' DIRECTORY, THE MICHIGAN BUSINESS FARMER, Mt. Clemens, Michigan.

DIG TYPE POLAND CHINA GILTS BRED for summer and fall farrow from \$25.00 to \$40.00. Boars ready for service, \$25.00. JNO. C. BUTLER, Portland, Mich.

I am offering Large Type Poland China Sows, bred to F's Orange at reasonable prices. Also fall pigs. Write or call. CLYDE FISHER, R 3, St. Louis, Mich.

DUROCS

BUY GOOD HOGS NOW

from one of the largest herds of registered Durocs in the state. Open fall gilts at \$25. Sows and gilts bred for summer and fall farrow. Booking orders for spring pigs. Will accept a few sows to be bred to good sons of Great Orion Sensation and Duration. Write or visit us. Michigan Farm, Pavilion, Mich.. Kalamazoo Co.

FOR SALE—FINE MARCH AND APRIL PIGS Sired by Gladwin Col. 188995. Write us your wants. HARLEY FOOR & SONS, R 1, Gladwin, Mich.

Duroc Jersey Bred Stock all Sold. Orders taken for venting pigs. 1,000 pound herd boar. JOS. SCHUELLER, Weldman, Mich.

DUROC JERSEY BOARS. Boars of the large, heavy-boned type, at reasonable prices. Write, or better, come and see. F. J. DRODT, R 1, Monroe, Mich.

REGISTERED DUROC PIGS

\$10.00 each. Write your wants. F. A. LAMB, Cassopolis, Mich.

PEACH HILL FARM

TRIED sows and gilts bred to or sired by Peach Hill Orion King 152489. Satisfaction guaranteed. Come look 'em over. Also a few open gilts.

INWOOD BROTHERS

Romeo, Mich.

A FINE LOT OF SPRING DUROC JERSEY pigs, either sex. Brookwater breeding at reasonable prices. SCHAFER BROS., R 1, Leonard, Mich.

AM OFFERING SOME HIGH CLASS SPRING DUROC BOARS

at reasonable prices. A few gilts bred for September farrow at bargain prices. W. C. TAYLOR, Milan, Mich.

MEADOWVIEW FARM REG. JERSEY HOGS. Booking orders for spring pigs. J. E. MORRIS & SON, Farmington, Mich.

FOR SALE—REG. DUROC-JERSEY SPRING gilts bred to Rambler of Sangamo 1st. The boar that sired our winners at Michigan State Fair and National Swine Show. F. HEIMS & SON, Davison, Mich.

OAKLANDS PREMIER CHIEF

Herd Boar—Reference only—No. 129219

1919 Chicago International 4th Prize Jr. Yearling

BOOKING ORDERS FALL PIGS AT \$25. BLANK & POTTER, Potteryville, Mich.

DUROCS—SOWS AND GILTS ALL SOLD. Have a few choice fall boars at reasonable price. C. L. POWER, Jerome, Mich.

FOR SALE—DUROC FALL GILTS. WE ARE booking orders for choice spring pigs, \$15. 8 to 10 weeks old. JESSE BLISS & SON, Henderson, Mich.

DUROC JERSEY REGISTERED BOAR King \$15 up. Satisfaction guaranteed. E. E. CALKINS, Ann Arbor, Mich.

DUROC PIGS 8 TO 12 WEEKS OLD, \$10.00 each. Pedigreed. S. O. WEEKS, DeGraff, Ohio.

FOR SALE: ONE DUROC BOAR FROM Brookwater breeding stock. Choice spring pigs. JOHN CRONENWETT, Carleton, Mich.

Duroc sows and gilts bred to Walt's King \$2949 who has sired more prize winning pigs at the state fairs in the last 2 years than any other Duroc boar. Newton Barnhart, St. Johns, Mich.

Durocs, Hill Crest Farms. Bred and open sows and gilts. Boars and spring pigs. 100 head. Farm 4 miles straight S. of Middleton, Mich., Gratiot Co. Newton & Blank, Perrinton, Mich.

DUROC BOAR PIGS TYPE, QUALITY and size. Pathfinder, Orion Cherry King and Proud Colonel breeding. Satisfaction guaranteed. Address: ROGER GRUBER, Capac, Michigan

WE OFFER A FEW WELL-BRED SELECT Duroc spring Duroc Boars, also bred sows and gilts in season. Call or write. McNAUGHTON & FORDYCE, St. Louis, Mich.

O. I. C.

O. I. C. AND CHESTER WHITE

Bred sows for August farrow. March pigs that will please. Prominent bloodlines. Write CLARE V. DORMAN, Snover, Mich.

O. I. C. SWINE—MY HERD CONTAINS THE blood lines of the most noted herd. Can furnish you stock at "live and let live" prices. A. J. GORDEN, Dorr, Mich.. R 3.

O. I. C.'s SERVICE BOARS, SPRING PIGS at Farmer's prices. CLOVER LEAF STOCK FARM, Monroe, Mich.

CHESTER WHITES

BRED GILTS FOR JUNE FARROW. ONE service boar 9 mos. old. Also young pigs. Write me your wants. Prices right. RALPH COSENS, R 1, Levering, Mich.

HAMPSHIRE

HAMPSHIRE BRED GILTS NOW READY TO ship. A bargain in fall and spring boar pigs. JOHN W. SNYDER, R 4, St. Johns, Mich.

An Opportunity To Buy Hampshires Right

We are offering some good sows and gilts, bred for March and April farrowing. Also a few choice fall pigs, either sex. Write or call. GUS THOMAS, New Lothrop, Mich.



SHEEP



FOR SHROPSHIRE EWES BRED TO LAMB in March, write or call on ARMSTRONG BROS., R 3, Fowlerville, Mich.

REG. LARGE ENGLISH YORKSHIRES, SHORT broad heads, prolific, best strains. Spring pigs \$12.00 to \$15.00 apiece. Almont Farm, J. Homer Reams, Luthersburg, Pa.

MERINO RAMS FOR SALE. GOOD BIG- headed heavy shearers. HOUSEMAN BROS., R 4, Albion, Mich.

A FEW EXTRA FINE SHROPSHIRE AND Hampshire Yearling Ewes for \$25 each. These are extra nice. J. M. WILLIAMS, North Adams, Michigan

HAMPSHIRE SHEEP

A few good yearling rams and some ram lambs left to offer. 25 ewes all ages for sale for fall delivery. Everything guaranteed as represented.

CLARKE U. HAIRE, West Branch, Mich.

BETTER BREEDING STOCK

For the best in Shropshire and Hampshire rams write or visit KOPE-KON FARMS, S. L. Wing, Prop. Coldwater, Mich. See our exhibit at the Ohio and Michigan State Fairs.



HORSES



TWO-YEAR-OLD PERCHERON STUT, GREY, big boned, high class colt, from ton mare and imported stud weighing 1,160 pounds. Price \$250.00. JNO. C. BUTLER, Portland, Mich.



PET STOCK



FOR SALE, FLEMISH GIANT RABBITS, DOES, breeding age, \$6. Three months old pair, \$5. Registered does \$12 each. Stock pedigreed. Quality guaranteed. E. HIMEBAUGH, Coldwater, Mich.

Read the Classified Ads

—IN—

M. B. F.'s Business Farmers' Exchange

WANT TO SELL

ANY LIVESTOCK?

Try M. B. F.'s Breeders' Directory

MAN WANTED

A reliable house, well and favorably known among the farmers in Michigan has an opening for an honest, energetic man to sell to farmers.

The man for this job must realize that he will be expected to work hard and steadily and that his advancement will depend entirely upon the amount of energy enthusiasm and loyalty he puts into the work. Applicant should have a Ford car or horse and buggy. Previous selling experience desirable but not absolutely necessary.

If you are only curiously interested do not apply, but if you really want to better your condition by hard work, write

BOX K

care Michigan Business Farmer, Mt. Clemens, Mich.

Advantages of the Breeding Crate

PROPER management at breeding time frequently results in the breeding of a great many sows that otherwise might fail to mate and would necessarily have to be carried over to the next season, thus involving expense without producing a litter of pigs. This condition may be partly overcome by the use of the breeding crate, which is growing in popularity.

Some sows when in heat will not take the boar readily and will often hinder a successful service by lowering the vitality of the male. When a small sow is bred to a large, heavy boar there is danger of injury to the sow if some mechanical device is not used to help bear the weight of the boar. Such a device can also be used to advantage when a small boar is mated to a large sow.

There are many types of breeding crates which the farmer may construct. The accompanying illustrations show a crate that can be operated by one man and is easily constructed on the average farm without involving much expense.

Directions for Operation

The sow is driven into the open end of the crate until her hind feet are in front of the crosspiece of the T-shaped lift. The sow is elevated by means of the lift, which is drawn up by a windlass as shown in the illustration. A ratchet on the windlass holds the sow at the desired height. The partition at the front end of the crate operates on a slide and can be arranged to suit the length of the sow. Thus, if the sow is large the partition can be moved toward the end of the crate to allow plenty of space without cramping her, and in the case of a small sow the partition is moved closer to eliminate an undue amount of space. The point to remember is that the animal should be in a natural position in order to obtain the best results.

When the sow is properly placed the boar is brought up. His hind feet should rest on a flat cleated platform laid on the ground to give him a solid footing. The cleats should be 1 by 2 inches to prevent slipping. His front feet will fall upon the rest as shown in the drawings, the sow being required to bear only a small part of his weight. The

sow should then be raised or lowered as the case may be, to the proper height by means of the windlass. When a small sow is bred the short top rests are extended to hold her firmly in position.

After breeding, the boar is driven to his pen or paddock. The sow is removed from the crate either by releasing the ratchet on the windlass and allowing her to back out or by removing the sliding partition so that she may walk out the front end of the crate.

Bill of Materials for Constructing a Crate

Dressed or undressed lumber may be used in the construction of a breeding crate. The material required will total about 140 board feet of lumber of the following dimensions:

5 pieces, 2 by 4 inches by 16 feet long, for uprights and sides.

14 pieces, 1 by 6 inches by 12 feet long, for sides and flooring.

Hardware, Etc.

2 pieces, 1-2 inch iron rods, 30 inches long, with 2 wing nuts, as shown in illustration, for sliding partition.

1 piece, 1-inch pipe 2 feet 10 inches in length, with handle and ratchet, for windlass.

12 feet sash cord for windlass.

1 pair hinges.

4 angle irons, 3-8 inch thick by 1 1-4 inches in width, and made 2 by 3 inches, as shown on the sliding partition.

5 pounds 10-penny wire nails.

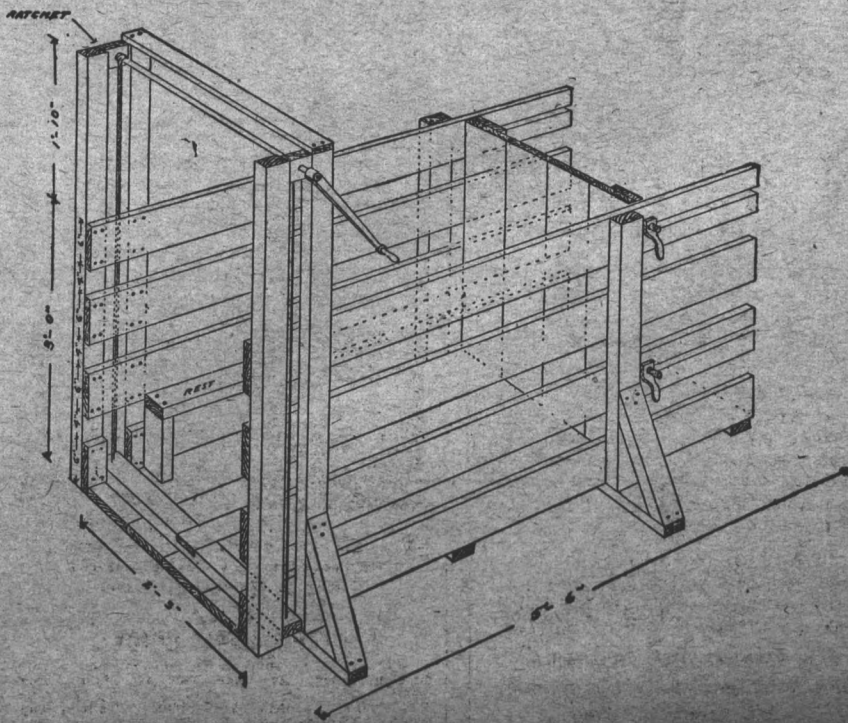
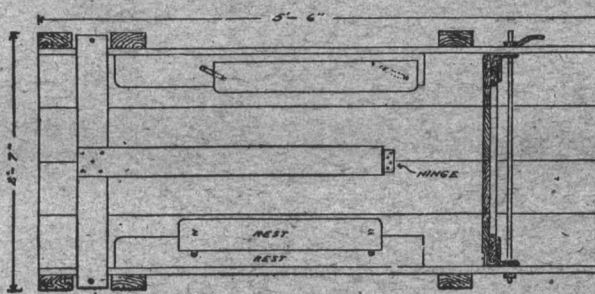
2 pounds 20-penny nails.

It is not absolutely necessary to construct the crate as shown. Other methods of making a windlass that will answer the desired purpose may suggest themselves. For instance, instead of being made of iron it could be made of wood in much the same manner as the old wooden windlass used over wells.

The canvasser knocked at the office door and walked in with a confident smile.

"Sir," he said, "I have for sale a combined carpet-sweeper, talking-machine, potato-peeler, and—"

"Not today," interrupted the manager, "I've got one. I was married twelve months ago."



STATE GUERNSEY BREEDERS MEET

THE SUMMER meeting of the Michigan State Guernsey Breeders' Association was held on Friday, June 17, by invitation at the home of John Endicott, located just north of Birmingham. The Endicott farm includes 115 acres of fertile land, nearly all under cultivation; the meeting was held, in a grove of second growth timber.

A sumptuous lunch was furnished by the host of the day and the cordial welcome extended to all, savored of that old-fashioned courtesy which is, alas, none too plentiful nowadays.

The president of the Michigan Guernsey Breeders' association, F. H. Ormstrum of St. Johns, Mich., was in the chair and he was ably assisted by the secretary, H. G. Ray. The leading speakers of the day were Geo. J. Hicks, Saginaw, Prof. O. E. Reed of the M. A. C. dairy department and K. B. Musser, fieldman for the National Guernsey Breeders' Association. The cow demonstration was ably conducted by H. W. Wigman, Lansing. In a short talk, H. H. Mack, market editor of this paper, urged the breeders present to send representatives, from their herds, to the coming state fair.

The Experience Pool.

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

1.—Is there any successful way of getting rid of thistles when cultivating?—When I was young, 50 years ago, I found some Canada thistles while cultivating corn. I pulled out every one I found. Next year in oats I found a few and I pulled every one I found all summer. That ended the fight. In Macomb county where I was born I know of thistles being killed by one cutting, on July 3rd or 4th, but in Clare county it can't be done. Three years ago I cut thistles with a hoe down where stock is white, in week to ten day intervals, in corn all summer. Now there are very few in a rich black hollow. Eternal vigilance is the watchword. Yours for thoroughness.—A. E. Hains, Clare County.

You can get rid of them if you have lots of patience and will do plenty of hard work. I had 5 acres of black, sandy soil of which fully 3 acres were covered with thistles. No crop except a cultivated crop, and not a full one of this kind, could be grown on this land. I planted the field to corn and started cultivating just as soon as corn was large enough. I cultivated the field over 9 times with a hand cultivator and hoed it 5 times beginning as soon as thistles appeared above the ground. The last time I hoed it was after the corn was cut. With the exception of around the edges very few thistles have grown in that field since.—B. F. Cline, Gratiot County.

QUESTION NO. 5
Can any farmer tell me how to cure a horse of balking?—M. G., Macomb County.

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It is a sign your subscription has expired according to our records, and we will greatly appreciate a prompt remittance in the enclosed envelope.

IF YOU HAVE RENEWED and the date has not been changed, please advise us when and how you remitted. Or if you are receiving two copies each week, send us both labels, so we can correct our error.

WE ARE ANXIOUS to have you receive all copies promptly and correctly addressed, so tell us when any error occurs.

MAILING DEPARTMENT
The Michigan Business Farmer,
Mt. Clemens, Mich.

POULTRY BREEDERS' DIRECTORY

Advertisements inserted under this heading at 30 cents per line, per issue. Special rates for 13 times or longer. Write out what you have to offer and send it in. We will put it in type, send proof and quote rates by return mail. Address The Michigan Business Farmer, Advertising Department, Mt. Clemens, Michigan.

POULTRY

PULLETS

4,500 White and Brown Leghorn and Ancona 8 weeks old Pullets; also 10,000 Yearling Leghorn and Ancona Hens. Send for prices and description of stock.

STATE FARMS ASSOCIATION

Desk 2, Kalamazoo, Michigan

MUD-WAY-AUSH-KA FARM

offers young stock and a few mature breeders in White Chinese Geese, White Runner Ducks and White Wyandottes. Also O. L. C. spring glits. Write today for prices on what you need.

DIKE C. MILLER, Dryden, Mich.

ORPINGTONS AND LEGHORNS

Two great breeds for profit. Write today for free catalogue of hatching eggs, baby chicks and breeding stock.

CYCLE HATCHERY COMPANY, 149 Phila Bldg., Elmira, N. Y.

QUALITY CHICKS, BLACK MINORCA, LIGHT Brahma, 25c each. Barred Rock, R. I. Red 18 cents each.

TYRONE POULTRY FARM, Fenton, Mich.

WYANDOTTE

SILVER LACED GOLDEN AND WHITE WYANDOTTES. Eggs \$2.50 per 15; \$4.50 for 30. C. W. BROWNING, R 2, Portland, Mich.

Baby Chicks and Hatching Eggs

Martin strain White Wyandottes. Grand utility and exhibition matings. Winners at W. Mich. Poultry Show at Muskegon. Chix sold to May 15th. Order now. June chick at reduced prices. Send for price list.

C. W. HEIMBACH, Big Rapids, Mich.

LEGHORNS

Grabowski's S. O. White Leghorns, Cockerels, cocks and yearling hens for sale.

LEO GRABOWSKI, R 4, Merrill, Mich.

3 MOS. W. LEGHORN PULLETS, T. B. English strain. Delivery guaranteed.

HENRY GEBBEN, Fremont, Mich.

RHODE ISLAND REDS

Whittaker's R. I. Reds. Both Combs. Michigan's greatest color and egg strain. We are offering some unusual bargains in chicks and hatching eggs for June and early July. Write for free catalog.

INTERLAKES FARM
Box 4, Lawrence, Mich.

LANGSHAN

DR. SIMPSON'S LANGSHANS OF QUALITY Bred for type and color since 1912. Winter laying strain of both Black and White. Have some cockerels for sale. Eggs in season.

DR. CHAS. W. SIMPSON
Webberville, Mich.

ORPINGTONS

ORPINGTONS COCKERELS AND PULLETS for sale. Buff, White, Black Cockerels at \$7, \$8, and \$10. Pullets at \$3 and \$5. Also yearling hens \$3 and \$4. Hatching eggs, \$6 per setting of 13.

GRABOWSKI BROS., R 4, Merrill, Mich.

BABY CHICKS

BABY CHICKS

850,000 for 1921

Our 17th season. Chicks sent prepaid. Safe delivery guaranteed. Leghorns, Rocks, Reds, Anconas, Wyandottes, Minorcas, Utility and Exhibiting quality at very reasonable prices. Catalog and price list free.

20th Century Hatchery, Box 5
New Washington, Ohio

CHICKS SHIPPED SAFELY EVERYWHERE by mail. White Leghorns, Anconas and Rocks. The great egg machines. Guaranteed full count, strong, sturdy chicks on arrival. 13 year reliable dealings. Price \$10 per 100 up. Valuable catalog free.

HOLLAND HATCHERY

R. 7, Holland, Mich.

BABY CHICKS ALL SOLD. WILL HATCH Rocks and other standard varieties next season.

H. H. PIERCE, Jerome, Mich.

SELECTED CHICKS

\$8.00

Per 100 prepaid. S. C. White & Brown and English Leghorns and Anconas. A hatch every Monday. Order direct from this ad. We guarantee safe delivery.

WYNGARDEN HATCHERY

Box B, Zeeland, Mich.

EXTRA GOOD CHICKS

Plan now on more eggs next winter. June hatched chicks lay when eggs are high. Eng. White Leghorns, \$1—100; Brown Leghorns, \$1—100; Anconas, \$12—100. Postpaid anywhere. Catalog free.

MONARCH POULTRY FARMS & HATCHERY
Zeeland, Mich.



BREEDERS

WE ARE BREAKING UP OUR BREEDING pens and offering you this valuable stock at \$1.75 per head. Both males and females must go. Write us now how many you want. Satisfaction guaranteed.

LORING & MARTIN CO.

East Saugatuck, Mich.

DANGER If chick and egg are not shipped right. Chix 11c Up 100,000 best blooded chicks ever produced. Always 2,000 on hand 5 to 15 days old. 20 varieties. Hatching eggs. Ducklings. Catalog. Early booking avoids disappointment.

BECKMAN HATCHERY

28 E Lyon St., Grand Rapids, Mich.

"ERNE" FOREMAN, THE CULLING WIZARD

Contributes to the June number of the Modern Poultry Breeder his latest and greatest work—EVERY STEP IN POULTRY CULLING

You can't afford to miss this great article, the most important of its kind since Walter Hogan published "The Call of the Hen." As Superintendent of the Poultry Experiment Farm of Ontario Agricultural College, as Extension Specialist of Michigan Agricultural College (where 2,000,000 hens were culled under his direction), as a practical breeder whose birds have made winning records at egg laying contests, (his pen of Barred Rocks took highest place in April at Missouri egg laying contest), as special research worker in poultry at Ontario Agricultural College, 1920-21, Mr. Foreman has accumulated

A GOLD MINE OF POULTRY FACTS The best and latest of which are contained in the June number of the MODERN POULTRY BREEDER.

But Mr. Foreman is not our only worth-while contributor. Prof. C. H. Burgess of Michigan Agricultural College, Dr. L. E. Hensley, Judge W. H. Card, E. A. Ridenour and many other practical poultrymen help to place the MODERN POULTRY BREEDER in the very front ranks of poultry publications.

Established in 1885, second only to one in age, but second to none in quality. Every up-to-date Michigan poultryman takes the MODERN POULTRY BREEDER, the official organ of the Michigan branch of the American Poultry Association. All the Michigan poultry news is found in its columns. Get your subscription in during June and get the great Foreman article. Only 50c a year or three years for \$1. Or we will accept three yearly subscriptions for \$1. Send at once to

MODERN POULTRY BREEDER,

Battle Creek, Mich.

Business Farmers' Exchange

50 A WORD PER ISSUE—2 insertions for 10c per word. Farm for sale ads. not accepted for less than 3 times. Twenty words is the minimum accepted for any ad. in this department. Cash should accompany all orders. Count as one word each initial and each group of figures, both in body of ad. and in address. Copy must be in our hands before Saturday for issue dated following week. The Business Farmer Adv. Dept., Mt. Clemens, Mich.

HOW TO FIGURE ADS. UNDER THIS HEAD					
Words	1 time	3 times	Words	1 time	3 times
20	\$1.00	\$2.00	36	\$1.80	\$3.60
21	1.05	2.10	37	1.85	3.70
22	1.10	2.20	38	1.90	3.80
23	1.15	2.30	39	1.95	3.90
24	1.20	2.40	40	2.00	4.00
25	1.25	2.50	41	2.05	4.10
26	1.30	2.60	42	2.10	4.20
27	1.35	2.70	43	2.15	4.30
28	1.40	2.80	44	2.20	4.40
29	1.45	2.90	45	2.25	4.50
30	1.50	3.00	46	2.30	4.60
31	1.55	3.10	47	2.35	4.70
32	1.60	3.20	48	2.40	4.80
33	1.65	3.30	49	2.45	4.90
34	1.70	3.40	50	2.50	5.00
35	1.75	3.50			

FARMS & LANDS

FARM WITH 300 FRUIT TREES, HORSE, crops, 6 cows and heifers, vehicles, implements, dairy utensils, tools, etc., thrown in; happiness and prosperity yours in delightful section, big fruit farms; 112 acres on good road, 1 1/2 miles village, advantages; machine-worked fields; spring-watered pasture; abundance wood, timber; fine orchard over 300 apples, pears, plums, cherries, grapes, etc.; good 6-room house, magnificent outlook; 50-ft. basement barn, 2 poultry houses, ice house, etc. To settle owner's affairs all on \$2,800 easy terms. See page 9 Illus. Catalog 1,100 Bargains, FREE, STROUT FARM AGENCY, 814 BE, Ford Bldg., Detroit, Mich.

3 FARMS, CLAY AND SANDY LOAM SOIL partially fenced, 2 wells, 60 acres crops, fair buildings. H. HOY, Rose City, Mich.

WANTED, TO RENT OR BUY, A SMALL poultry farm in southern Michigan. Southern Berrien Co. preferred. BOX H, care Michigan Business Farmer, Mt. Clemens, Mich.

BARGAIN, BRANCH MICH. 120 ACRES unimproved land. Good soil for general farming or stock raising. Some timber. Small lake on west edge, not marshy. Price \$960. Reasonable terms if desired. Owner LULU CARLSON, Room 513, 803 W. Madison St., Chicago, Ill.

FOR SALE—60 ACRE LIVINGSTON CO. farm on trunk line road. For particulars write JOHN E. HOFFMAN, R 3, Fenton, Mich.

HOTEL AND ICE CREAM PARLOR FOR sale cheap in a busy town. Selling on account of sickness. LOOK BOX 19, Boon, Mich.

I HAVE 320 ACRES LAND IN ALCONA county. Two good springs, some building timber also, no improvements. Will sell cheap. MRS. SUSAN MOFFETT, Applegate, R 2, Michigan, X.

50 ACRE FARM FOR SALE—GOOD HOUSE two barns, silo, granary, new henry. Clay loam soil, two miles from railroad, high school, churches. Terms arranged. ERNEST EAST, North Adams, Mich.

MISCELLANEOUS

MACHINERY

SAW MILL MACHINERY. PORTABLE mills for farmers' use. Make your own lumber. Send for new catalog. HILL-CURTIS CO., 1507 No. Pitcher St., Kalamazoo, Mich.

SINGLE COMB BUFF LEGHORN HENS AND cocks, and early hatched cockerels and pullets. J. W. WEBSTER, Bath, Mich.

HATCHING EGGS

R. I. RED HATCHING EGGS, THOMPSON'S strain, \$10 per 100; baby chicks, 25c each. Wm. H. FROMM, New Baltimore, Mich.

BARRED ROCKS HATCHING EGGS FROM Parks 200 egg strain. Rich in the blood of Park's best pedigreed pens. \$2 per 15. \$6 per 50, \$12 per 100. Prepaid by parcel post in non-breakable containers. R. G. KIRBY, R 1 East Lansing, Mich.

R. O. BR. LEGHORN EGGS, \$1.50 FOR 15. Pekin duck \$1.50 for 8. W. Chinese geese eggs 40c each. Mrs. Claudia Betts, Hillsdale, Mich.

Ancona Eggs for Hatching, 5c apiece. Chix 10 cents. Cockerels 8 wks. Write for special prices. EVA TRYON, Jerome, Mich.

FOR SALE—10-20 TITAN TRACTOR AND 20-32 New Racine Separator. Cheap if taken at once. Inquire MARTIN J. HEUSSNER, Marlette, Mich.

FOR SALE—NEW OUTFIT 15-30 TRACTOR and 28 x 48 separator and bean thrasher. Used one season. HERRMANN BROS., R 7, Clare, Michigan.

CORN HARVESTER CUTS AND PILES ON harvester or winnows. Man and horse cuts and shocks equal Corn Binder. Sold in every state. Only \$28 with fodder feeding attachment. Testimonials and catalog FREE. Write for picture of harvester. PROCESS HARVESTER CO., Salina, Kansas.

FOR SALE—1 BINDER; 1 MOWER; 1 horse rake; 1 fanning mill. Cheap for cash or bankable notes or trade for young stock. J. W. FERGUSON, Glennie, Mich.

GENERAL

LIGHTNING RODS, EXCLUSIVE AGENCY and quick sales to Live Dealers selling "DIE-DIE-BLITZEN RODS." Our copper tests 99.96 per cent PURE. Write for Agency. Prices are right. L. M. Diddle Co., Marshfield, Wis.

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MARKET FLASHES

TRADE AND MARKET REVIEW

WHILE IT is well-nigh universally conceded that what the industrial, agricultural and general business interests of this country need more than anything else, to bring back a semblance of old-time prosperity, is an increase in our export trade with foreign countries, a wide difference of opinion exists concerning the best methods to be adopted to bring about this expansion in trade. The Hoover program, which has been given the unqualified approval of Wall Street, is, just now, under fire from the middle-west bankers' association; at Washington, during the past week, representatives of the above mentioned association brought the matter to the attention of the president, their contention being that an increase in the volume of our trade with Europe, that necessitated a corresponding increase in the amount that European nations will be indebted to us, is undesirable at this time. Attention was called to the prospective refunding of the debts at present due us from foreign countries and the prediction was made that if the expansion project is pushed to the extent which will be necessary in order to bring about conditions that will compare favorably with other years, the balance of trade, between us and our foreign neighbors, will become so lopsided that exchange rates will drop to lower levels than have yet been recorded.

Banker George M. Reynolds, of Chicago, called the attention of the president to the rapidly growing sentiment, among a certain class of Americans, demanding that our foreign debtors be forgiven their obligations, entirely, and the amount added to the national expense account chargeable to the war; he expressed apprehension that Europe may try to side-step her trade obligations in the same manner. A tremendously strong opposition is developing, in American financial circles, against every proposition that will result in loading this country down with the bonds of foreign countries, especially, bonds issued by the German government with which to raise money for reparation purposes.

The recent weakness of foreign exchange has been attributed to an effort, on the part of the German government, to secure American dollars with which to make reparations payments. It now seems probable that the terms of the indemnities payments will be changed so that payment can be made in gold marks or other German legal tender. The establishment of an international banking system is under consideration. It is certainly very desirable that some arrangement be made that will make it possible for European nations to purchase our commodities in larger quantities than ever before.

Iron, steel, lumber and many other basic commodities and raw materials are experiencing a period of mid-summer dullness, just now, that in other years has always been taken as a matter of course during the summer season. Increases in the number of men employed in certain manufacturing lines are of quite common occurrence of late. The Wilson Foundry Co., of Pontiac will soon add 1,000 men to its working force but this increase will be offset by the closing down of the Solway Process Co., of Delray, by which 1,000 men will enter upon an enforced idleness of indefinite duration.

The hot weather has resulted in an increased demand for certain grades of cloth that are seasonable for suitings at this time of the year but independent of this consideration the goods market is rather quiet at this writing. The prospective failure of certain farm crops, in lo-

Edited by H. H. MACK

GENERAL MARKET SUMMARY

DETROIT—Wheat strong. Corn and oats steady. Beans active. Hay firm. Potatoes easy.

CHICAGO—All grains easy. Hogs and sheep lower. Cattle dull. Provisions off.

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

calities where moisture has been deficient, is causing some disappointment to the manufacturing interests which had planned to sell their season's output to the farmers of the country.

The New York Stock Exchange has, so far, during the current month, given very little idea of future trade developments; oils, utilities, equipments, tractions and motors were weak and lower until last Saturday when nearly everything took a turn for the better and closed strong. Call money is available at 5 per cent.

WHEAT

WHEAT PRICES PER BU., JUN. 28, 1921			
Grade	Det.	Chi.	N. Y.
No. 2 Red	1.35	1.38	1.52
No. 2 White	1.30	1.33	1.46
No. 2 Mixed	1.30	1.33	1.46
PRICES ONE YEAR AGO			
No. 2 Red	2.92	2.90	2.90
No. 2 White	2.92	2.90	2.90
No. 2 Mixed	2.92	2.90	2.90

The wheat market was unsettled all last week with trade light and confined to mostly local. The Detroit market opened quiet and steady on Tuesday, June 20. There was a decline early in the day but this was soon turned into a gain amounting to 2 cents. Wednesday the market was firm and prices again advanced. The trading on Tuesday was bearish but on Wednesday it became bullish owing to news from Europe stating Germany wanted 5,000,000 bushels and dry weather in France which was doing considerable damage to the growing crop. Threshing returns from the southwest reported the yield not as high as expected. The firm tone continued into Thursday's trading and there was a gain of 1 cent; however, this was soon lost because of heavy selling. The foreign news continued bullish. The Chicago market followed Detroit fairly close up to Friday when wheat at Chicago advanced while it only held steady at Detroit with a bullish tone. The trading at Detroit closed the week 2 cents higher which brought prices up to those offered on Monday morning, June 20. Saturday the market held its own.

Wheat was not brought under any new influences during last week, but those already at work developed chiefly in the direction of bullishness. The dry weather that was injuring wheat is still at work and causing a great deal of alarm. There is nothing new about the black rust; it is still in evidence, but has shown no increasing tendency. Dealers are trying to persuade themselves that this is one of the years when black rust does not injure the wheat. Harvesting has been interrupted at a number of points in the winter wheat states and there are many complaints that heads are short and not well filled. The yields are disappointing.

No large export takings have been reported, but wheat is going out of the country at a satisfactory rate and there is a general tone of strength in the deal. The worst feature from a bullish standpoint is that the market is not able to hold its advances. The upturns always meet liberal selling and a break follows. This is always the case when harvesting is in progress and dealers are afraid of increasing receipts.

CORN

CORN PRICES PER BU., JUN. 28, 1921			
Grade	Det.	Chi.	N. Y.
No. 2 Yellow	.63	.62	.82 1/2
No. 3 Yellow	.62	.60 1/2	
No. 4 Yellow	.59	.58	
PRICES ONE YEAR AGO			
No. 2 Yell.	1.02	1.07	
No. 3 Yell.	1.02	1.07	
No. 4 Yell.	1.02	1.07	

Corn markets were also unsettled last week. All breaks in prices found commission houses good buyers causing sellers to soon take to cover. Houses with seaboard connections claim they are getting no bids but it is believed more business is being done in this line of trading than exporters are willing to admit to the public. News from the country show the growing crop in good condition in most sections while in others there is need of rain.

OATS

Small losses were shown in oats last week. The market was affected by liquidation in the early delivery

OAT PRICES PER BU., JUN. 28, 1921			
Grade	Det.	Chi.	N. Y.
No. 2 White	.47	.38 1/2	.48
No. 3 White	.46	.37	
No. 4 White	.36 1/2		
PRICES ONE YEAR AGO			
No. 2 White	1.25	1.24	1.25
No. 3 White	1.25	1.24	1.25
No. 4 White	1.25	1.24	1.25

and the weakness in other grains. However, fair support was afforded the market by commission concerns owing to the receipts of bad crop news from South Dakota. Domestic shipping demand is improving daily at Chicago. Arrivals continue to run fair dimensions, the estimate for last Saturday at Chicago being placed at 125 cars. Country offerings to arrive are said to be light.

RYE

No. 2 at Detroit is now \$1.26. Reports are coming in that exporters are bidding and are anxious to secure considerable of this grain.

BEANS

BEAN PRICES PER CWT., JUN. 28, 1921			
Grade	Det.	Chi.	N. Y.
C. H. P.	3.60	4.50	4.60
Red Kidneys	3.60	4.50	4.60
PRICES ONE YEAR AGO			
C. H. P.	7.25		
Red Kidneys	7.25		

The Detroit bean market is reported unchanged with a slow demand all last week. During this time the price advanced. This would lead one to believe dealers were giving out misleading statements because why should the price advance when there is practically no demand? The demand certainly must be there in volume.

POTATOES

SPUDS PER CWT., JUN. 28, 1921			
Grade	Det.	Chi.	N. Y.
Det.	.82		
Chi.	.85	.85	
New York	.87		
Pittsburg	1.25		
PRICES ONE YEAR AGO			
Det.	7.75		
Chi.	7.75		
New York	7.75		
Pittsburg	7.75		

Old potatoes continue to give way to the new supply and lower prices are noted on most markets. Receipts are fair but consumption is low as new potatoes can be secured at reasonable prices.

HAY STEADY

HAY PRICES PER TON, JUN. 28, 1921			
Grade	Det.	Chi.	N. Y.
No. 1	18.00	18.00	18.00
No. 2	16.00	16.00	16.00
No. 3	14.00	14.00	14.00
No. 4	12.00	12.00	12.00
No. 5	10.00	10.00	10.00
No. 6	8.00	8.00	8.00
No. 7	6.00	6.00	6.00
No. 8	4.00	4.00	4.00
No. 9	2.00	2.00	2.00
No. 10	1.00	1.00	1.00

HAY PRICES A YEAR AGO			
Grade	Det.	Chi.	N. Y.
No. 1	37.50	38.50	37.50
No. 2	35.50	36.50	35.50
No. 3	33.50	34.50	33.50
No. 4	31.50	32.50	31.50
No. 5	29.50	30.50	29.50
No. 6	27.50	28.50	27.50
No. 7	25.50	26.50	25.50
No. 8	23.50	24.50	23.50
No. 9	21.50	22.50	21.50
No. 10	19.50	20.50	19.50

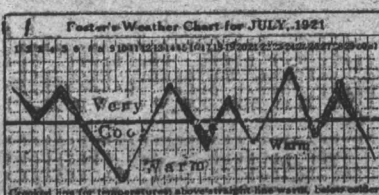
LIVE STOCK MARKETS

The advent of large numbers of grass-fed cattle in the markets of the country is working sad havoc with current price quotations for all kinds. The butcher cattle trade, which was weak and tending lower, all week before last, took the same course, last week and closed last Saturday at the extreme low price range for the season. On Monday of the current week another slice was taken off nearly everything on the list, including bulls which had hitherto been selling about steady. The top last week, for yearlings was \$9.15 and for mature steers, \$9.10 but on Monday of this week the best that could be done in the steer class was \$8.50. Stockers and feeders are 40 to 50 cents per cwt. lower than on the middle of the current month; it is sometimes rather difficult to find purchasers for the poorer grades of canners at \$1.50 to \$2 per cwt.

Last week, 5,000 fewer cattle came to hand than on the week be-

THE WEATHER FOR THE WEEK

As Forecasted by W. T. Foster for The Michigan Business Farmer



WASHINGTON, D. C., July 2, 1921.—July 5 a important storm will have come into telegraphic sight west of the great lakes, where it is expected to cross meridian 90 on that date. This will be the opening storm of July cropweather which promises well for corn but threatens the small grain harvests. Second of these storms will cross meridian 90 near 10 and third near 23. These triplets will have much to do with the small grain crops of 1921 as they are coming during the harvest times of the winter wheat sections east of Rockies. These storms will be of a nature calculated to produce hail, hurricanes, tornadoes, cloudbursts. The average time for these storms to pass from meridian 90 to the Atlantic coast is near three days; for this the reader may estimate the dates

when each of these storms will reach any vicinity on the continent. In some places oats will be in bloom and easily damaged by severe weather. I am expecting the most dangerous dates to be near July 5, 16 and 23. Near these dates you should watch for the thunder heads, the dark and angry clouds and the zig-zag lightning.

Last bulletin gave the wrong date for the expected hurricane to organize on the west coast of Africa. July 5 is the date. That hurricane will move westward but it is very difficult to say how rapidly it will move. The best evidence I have is the exceedingly cool weather that appears on my chart for the upper Mississippi and Red River of the north valleys for near July 10, indicating that the hurricane will be on the Gulf of Mexico at that time. The greatest force of the storms on the earth is estimated for July 16. It is only a guess as to where that hurricane will be at that time and I would guess that it will be in vicinity of Cuba on July 13 and the Bahamas on 16.

W. T. Foster

Here, for the most part, the average quality of the offerings was lower; some very fine animals came to hand however, showing tremendous losses to the men who had fed them out to export quality and weight. On Tuesday of last week, three carloads of Hereford steers averaging 1,300 pounds, sold on the Chicago market for \$9.10. Early last week, one load of old-fashioned cattle, averaging 1,800 sold for \$8.25 and later on, some splendidly finished loads of Angus steers averaging from 1,400 to 1,500 pounds sold for \$9 per cwt. In the Detroit market \$7.25 takes the best steers and the top for heavy weights is around \$7.

The sheep and lamb trade has been going hand in hand with cattle, down over the breakers, to the lowest price levels that have been known in many years. The only kind that have held steady of late, in the sheep division, have been those of handy weight. Early last week, the market scored an advance but all of this was lost and 50 cents more with it before the week was gone. At the close, last Saturday, salesmen found it very hard to sell common and cull sheep at any price; many went over the scales at 50 to 75 cents per head and one lot sold for 25 cents apiece.

Heavy fat cows went begging for buyers in Chicago during the last half of the week. Aged wethers from Oregon sold for \$3.25 and yearlings from the same state, \$4.50. The demand for breeding ewes was active, all last week, the full-mouthed kind going at from \$3 to \$4 per cwt.

Fat lambs, from the range and the corn belt, made a sharp advance, early last week, the gain ranging from \$1 to \$1.25 per cwt.; all of the above gain was lost before the week end and 5c per cwt. with it. Buyers of feeding sheep and lambs are operating with extreme caution and only a few western lambs went to the interior at prices ranging from \$6.50 to 7.25 per cwt. Last

week's run of sheep and lambs in Chicago was about the same as the week before, the total number exceeding 70,000 head.

Chicago got another big hog total last week, the showing being in excess of 170,000 hogs. The trade was active and strong nearly all the week the top of \$8.85 being made on Friday for high-grade Yorkers. The spread, between Yorkers and packing hogs showed a marked widening tendency all the week, because of the heavy average weight which, for the week, was 240 pounds. The pork commodity list is gaining in strength rapidly as a direct result of an active demand from continental Europe; it is difficult to say just what will happen when Great Britain comes into the market, which come in she must before very long.

Arrivals of live hogs, in markets outside of Chicago, have been comparatively small, of late; eastern cities are said to be close up on their fresh pork supplies and the south is a splendid buyer of cured meats. In the speculative provision futures, lard is taking the lead, just now, with ribs, hams and bacon playing a good second. Meat shipments from Chicago, last week, were 19,851,000 pounds compared with 9,384,000 pounds for the same week, last year. Of lard, 7,629,000 pounds were sent out compared with 5,847,000 pounds for the same week last year.

Stocks of frozen beef and lamb are considerably lighter than a year ago, but there is an ample supply of other meats. The statement of the bureau of markets, issued last week, shows 88,790,000 lbs. of frozen beef against 130,619,000 lbs. a year ago, and 194,500,000 lbs. of frozen pork, compared with 156,963,000 lbs. The recent heavy stock of frozen lambs and mutton has been whittled down to 15,910,000 lbs. by the export expedient. Lard stocks aggregate 180,620,000 lbs. against 152,307,000 lbs. a year ago and 152,528,000 last month.

Farmers Getting Ready to Start Haying

Bugs Plentiful, Rain Needed, Hay Short, Say Crop Reporters

Missaukee—Very dry in Missaukee county Saturday, June 18 we had our first good rain for about seven weeks now it is very hot and dry and not much is noticed of the rain anymore. Crops are very poor. Corn which was planted early looks fair; that which was planted late isn't all above ground yet, and it has been planted for three weeks already. Not many sugar beets this year; most farmers harrowed them out and put in potatoes. Potatoes on average are coming slow but sure. Small hay crop this year, very short. Farmers are starting to hay and most of it will be done by the 1st of July. Rye won't be a large crop this year. Oats may be fair if we have enough rain. On a whole farming is very discouraging in and about the regions of Falmouth. Jesse Schaaf.

Emmet—Hay short. Oats suffering some from drought. Corn looks good. Potatoes all in. Sweet clover hay is good. Seeding looks fine. Rain has helped some. Reporters coming heavy which will aid market for vegetables, milk and eggs. K. V.

Hillsdale—Wheat ripening very fast. Some will be cut next week. Crop is about normal. Very few cherries. Apples not so good as expected. Oats and barley short. Plenty of rain for last 3 weeks except in few small areas. Corn looking good. Hay short, except alfalfa.

Houghton—In several localities hay is being cut, for the grass is withering owing to very hot and dry weather. Considerable work is being done in poisoning the grasshoppers and potato bugs both of which are more numerous than they have been in many years. That there will be less grasshoppers next year is assured by the presence of large swarms of blister beetles. Leo M. Geismar.

Muskegon—Very dry. No rain of any account for several weeks. North of county hasn't had rain for six weeks. All crops suffering. Hay very scarce. Grain short. Oats heading in many places. Hubam clover standing drought in fine shape. Several demonstrations here. Looks like great crop for this section. Dwight C. Long, Co. Agricultural Agent.

Presque Isle—Hay short. Rains helped all other crops. C. McC.

Otsego—Hay above average for county. New seeding looking fine. Rains plenty thus far. Apples and strawberries promising and are doing well. Oats, corn and potatoes growing nicely. Potato bugs bad. A. C. Lytle, Co. Agricultural Agent.

Baraga—Weather very warm. Need rain badly. Hay crop is only fair. Barley and oats all looking fine. Fall wheat and rye all good. About the usual acreage of potatoes planted. Plenty of bugs. Are getting grasshoppers pretty well under control. L. W. B.

Leelanau—Cherry crop very light due to early frost and the exceedingly dry

spell at the present time. Hay is very short. Peas and oats need rain. The planting of potatoes is being held up for want of rain. Alfalfa and sweet clover making a good showing. V. C. Varyhan, County Agent.

Montcalm—The farmers are cutting hay. The hay is poor, except alfalfa; it is good most all over and some good sweet clover fields. The weather is hot and dry and rain goes in streaks. The farmers are busy fighting potato bugs; worst in years. Geo. R. Wilson.

Missaukee—Extremely dry. Some fields of potatoes and corn withstanding drought fairly well but rye, wheat, oats, sugar beets, hay and pastures are almost beyond hope. Fires on range land are destroying still more pasture. A shower at Falmouth last Saturday helped that section, but more rain needed. P. H. S.

Stearns County, Ind.—We have a fair crop of wheat. The first crop of alfalfa is in out of the way and was fair. June clover is short but better than we thought it was. Oats are short and rather smutty. Corn is looking fine. There is no fruit in this county except in the farmers' gardens. Just a little for his own table. Cyrus Burch, Fremont, Ind.

Ingham—Hay, wheat, rye, oats, barley are light. Corn is fairly good. Potatoes and vegetables are light. Beans are looking fairly good. Fruits are very scarce. John Kirby.

Bay (N. W.)—Corn is fair. Oats are headed out but very short and next to impossible to cut with the binder as it is very short. Barley is the same if not worse. Wheat and rye is fair. Haying just started and very short. Also the early potatoes are no good. Late potatoes are coming a little better but if we do not get a rain soon there will be a very short crop including beans and sugar beets of which there is a large acreage this year because they are six dollars per ton. Farmers had to double their acreage or more as the price on other crops is very low. Fred E. Schaeffer.

Shiawassee—Corn promises to be an enormous crop in this part of the county. The alfalfa crop is about all secured and farmers are very busy in their hay fields. Wheat is nearly ready to harvest. A very large acreage of beans has been planted and are growing fine. Very few sugar beets were sown here this spring. Farmer beet growers preferring to take chances with beans and oats. The ground is very dry, so much so that work on cross roads leading to the gravel roads has been suspended. There has not been very much rain here since about the first of May, but yet all crops seem to be doing well. Owing to the late frosts of the season, fruit, that is, cherries, plums, peaches, and apples are a total failure, but the berry crop is an abundant one. D. H. M.

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If you want to attend your home county fair and at the same time make a tidy sum of money write for our liberal proposition and tell us which fairs you would like to attend. Do it today before some other fellow beats you to it.

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A Message from the Publisher of The Michigan Business Farmer

To Ladies Only!

To the Mothers, Wives and Sisters of
the Business Farmers of Michigan:

YOUR PROBLEMS these days, dear ladies, remind me of the hardships of the early Pilgrim mothers—

For be it remembered, that the Pilgrim fathers, landing in early winter on the bleak, rock-bound coast of New England, faced an unknown land, filled with blood-thirsty savages and no provisions for the long winter—

While the Pilgrim mothers had not only all of these things to face, but the Pilgrim fathers as well!

You have to face not only the hardships of depressing markets, which father has to face, but in addition you have to take his word for it and some times he was mighty blue, wasn't he?

But you cheered him up and told him you'd sailed together over rougher seas and reminded him that every cloud has a silver lining and that a dog can't keep running into the woods forever, because when he gets more than half way in, he is running out of the woods!

So right now, ten to one, father and the boys too, probably are out sweating and working their heads off to get a big crop to sell within the next few months or weeks!

And you—well, you are working just as hard as they are and perhaps a little harder. Maybe more hours and work the boys wouldn't do on a bet!

But, like every woman, you mix some thought with your work—you may be washing, or scrubbing, or baking or mending—**BUT EVERY MINUTE YOU ARE THINKING!**—that is why this message is addressed to YOU!

WHAT MADE DAD SO BLUE?

You know what is wrong with the farming business—it's the selling end!

The farmers of America never failed to raise enough foodstuff to feed all of this country and part of the world besides—more often they have raised too much!

But it took them a long, long while to find this out!

At one time America was threatened with becoming like Europe and Asia, where poverty-stricken peasants work the fields for luxury-loving landlords who became known as aristocrats!

America's greatest farming states, Illinois and Iowa, were cursed with this plague until there were more tenants or peasants on their farms than farm owners. Michigan, thank God, was more enlightened! Eighty-five per cent of our farmers still own the land they till!

But last year the blow which awakened the farmers of America came!

Before the foodstuffs the farmers had sweated to raise could be hauled to markets, the prices had tobogganed to levels comparable only to before the war!

That was the Big Ben which awoke the farmers from their lethargy—since then they have been organizing marketing associations, passing new laws at Washington to control the grain markets and the packers—

AND THE AMERICAN FARMER IS GOING TO

COME INTO HIS OWN AS NEVER BEFORE DURING THE NEXT FIVE YEARS!

And it is because father and the boys may have been working hard with their hands and coming in too tired at night to read The Business Farmer, that we have taken this page to write you this message.

YOU HOLD THE KEYS!

You know that although father may argue with you, yet after all it is what you say to him that makes the big and lasting impressions, so we want you to encourage him and it will not be false encouragement as you will prove to yourself when you read the steps forward which are being taken in the farming business.

Encourage him to stick by the farm organizations; local, state and national which are fighting for his business.

Tell him to turn a deaf ear to the lies about them which are spread by paid hirelings of the old market gamblers.

Show him that the way to make anything a success is not to be criticizing but by getting in and doing some of the work. Every man will make mistakes. If the wrong man is at the head of any farmers' proposition in Michigan, tell dad to use his vote to oust him, but so long as he is in, boost him and help him!

And all the while, make father and the boys happy that they are farming in Michigan this year where we grow no one single crop—

Scarcely a farmer in Michigan but who owns from five to a dozen different products which he can place on the markets. Think of the grain farmers or cotton planters or pork raisers of other states who placed their whole year's work in one basket and then the bottom fell out of the basket!

THEN LAST BUT NOT LEAST!

For if we were less modest, we would certainly put it first—tell father and the boys to take the time necessary to sit down and read The Business Farmer every week.

It will pay them, Oh, so well, to relax their muscles and exercise their brains, by keeping up with what is happening in the big business of which they are a part.

No successful business man, but who reads his trade paper from cover to cover—

AND YOU WANT YOUR MEN TO BE BUSINESS FARMERS, DON'T YOU?

Of course, you are interested in all of these things too, else you would not have read this far in this message, but we want you to convince your men folks that it will not profit them a penny to work their heads off now raising a crop, if they sell it at a loss this fall!

So, we leave it to you, the faithful, loyal wives, mothers and sisters of the business farmers of Michigan, to show them the way!

SPECIAL RENEWAL OFFER

The Michigan Business Farmer,
Mt. Clemens, Mich.

In accordance with your special offer for July only,
I enclose \$.....which pays up my subscription to JANUARY FIRST, 19.....

Name

P. O.

R. F. D. No. State

(Be sure and enclose your address label torn from the front cover of any recent issue so we will be sure to give you credit.)

HAS FATHER FORGOTTEN TO RENEW?

WE HOPE every woman who has read the above message will now turn to the address label which appears on the front cover. If the date following your name is any month before August, 1921 (Aug 21), your subscription has expired and **YOU CAN SAVE MONEY BY RENEWING DURING JULY.**

We like to have all our subscriptions expire the first of January, so for this month only, we will make you this offer:

SEND FIFTY CENTS and we will change your label to January first, 1922
SEND ONE DOLLAR and we will change your label to January first, 1923
SEND TWO DOLLARS and we will change your label to January first, 1925
SEND THREE DOLLARS and we will change your label to January first, 1927

ADD A NEW SUBSCRIBER'S NAME—We will, during July add the names of any new subscribers you send with your renewal at Twenty-five Cents (25c), each, for the balance of the year or Fifty Cents (50c), each for one full year. You could thus, by asking a few of your neighbors to subscribe, when you are renewing, and by collecting the regular price of 50c for 6 months or \$1 a year, pay for your own renewal without any expense to yourself.

In every case we sent a receipt by first class mail.

THE MICHIGAN BUSINESS FARMER, Mt. Clemens, Mich.