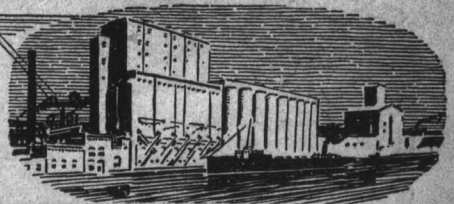


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Blossom Time

In this issue: Nicol Heads National Fruit Marketing Agency; Michigan Sends Prize Holsteins to National Show; Is Bovine Tuberculosis a Menace to Human Life?; A Shorthorn Herd of Which All Michigan is Proud



Potash for Swamp Land

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Even at war prices potash gave a good profit on swamp lands. Now it can be bought for very much less. It will help you reduce the cost of production, and greatly improve the quantity and quality of your crops. There is plenty of it if you will take the trouble to insist on having it.

SOIL & CROP SERVICE, POTASH SYNDICATE
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Current Agricultural News

AGRICULTURE IN FRANCE

ONE of the principal points of interest in French agriculture of today is the reclamation of fought-over soil. The area of the devastated regions, which includes ten of the richest agricultural departments of France, amounts to 8,246,000 acres of which 7,167,000 acres had been reclaimed by January 1, 1922. This area though being ready for cultivation is not actually productive as yet, due to the lack of buildings and machinery destroyed in war-time. The true injury to farmers, however, was not as severe, as might be expected as many were unable to salvage much portable property, and these peasants followed the recession of the invading armies and at once started the work of reclamation, and throughout the war and for two years afterwards, they received record prices for their produce and thus were enabled to restart with new stock and up-to-date machinery. As a result, farming in this region is much more scientifically done than before the war. The younger men are especially interested in modern machinery and fertilizers and dealers report an active trade in all classes of American tools and implements.

The wheat crop of 1921 which equaled a pre-war yield was harvested from an acreage of about 3,000,000 acres less than the pre-war average. The rye figures show an increased average yield but the cultivation of rye is considered much less important than wheat which explains the decreased acreage. The French farmers cite a curtailment of rye cultivation as an evidence of agricultural progress as they are much opposed to sowing rye on land that is good enough to grow wheat. The minor crops all show a decrease from the pre-war acreage. The sugar beet industry still shows a shortage of about 2-3 the pre-war average production of beets. The area lies almost entirely in the invaded territory and many of the destroyed factories have not been rebuilt, for last year only 72 were in operation as compared with 213 before the war. The vineyards were but little affected by the war but through labor shortage the output of wine in 1915 was reduced to less than half the normal yield though now production has approached normal again. The problem of the industry now is to find a market.

The live-stock industry is recuperating rapidly. Cattle are approaching pre-war numbers as is shown by comparing the total for 1920, 13,217,000 with 12,250,000 in 1918 and \$14,500,000 a pre-war average. Sheep show a considerable decrease for in 1920, they numbered only 9,405,000 as against 16,000,000 at the outbreak of the war. In pre-war times 7,000,000 swine was a fair (10-year preceding war) average. This was cut to less than 4,000,000 by 1918 and in 1920, only 5,000,000 were reported.

LIVESTOCK DAY AT M. A. C.
ANUAL visiting day at the Michigan Agricultural College for farmers and others interested in steer and swine feeding will be held on Tuesday, May 16, according to announcement of Prof. Geo. A. Brown, head of the animal husbandry department at the college.

On this day results of the winter's work in experimental feeding at the college will be presented and discussed by the assembled farmers. At the same times plans for future experimental programs will be taken up in an effort to plan work of much value to the feeders of the state.

During the last six months, three lots of steers have been on feed in the college barns to determine the relative value of silage made from well matured husking corn (normal silage) and silage made from corn stover after the ears had been removed.

Five tests have also been run with pigs, using five lots of pigs in each test. The following rations were used: corn, rye, barley and tankage;

rye and tankage; barley and tankage; corn and tankage; rye, barley and tankage; barley, middlings and tankage; rye, middlings and tankage.

Results of the above tests will be computed just before the May 16 conference and the results presented then.

A large number of state feeders and others interested in the work turned out for the conference a year ago, and college authorities are expecting an even larger gathering on the 16th.

LIVE STOCK EXCHANGE BUYS DETROIT OFFICE

THE Michigan Live Stock Exchange has purchased the office, equipment and alleys of the firm of Sandel, Stacy, Beadel and Green, commission merchants, of Detroit, and started business May 1st.

According to E. E. Compson, secretary-manager, the Exchange has secured the services of some of the best known, and most competent men on the market, at Detroit, as salesmen and yard men. Among them are: Hog salesman: John Beadel, well known to all Detroit shippers, as a member of the firm of Sandel, Stacy, Beadel and Green; sheep and calf salesman, Chas. Culbert of the same firm, with George Boutell of Perry as assistant; cattle salesman, John Ahorn, who has had seven years experience on the Buffalo market, with Mr. Carr of Huron county as assistant.

This is the result of untiring effort to establish a place where farmers can sell their own livestock. Call at your own office and get acquainted with your hired men, and make yourselves at home.

A TRACTOR FREE TO SOME BUSINESS FARMER

ON June 1st the Business Farmer will give away a brand new tractor. And it won't cost the man who gets it a single cent. This tractor is one of the best on the market and will do almost any work a horse can do. Probably many of our readers have long wanted a tractor, but have felt unable to buy one. Here's your chance to own one. Solve the puzzle on page 8, send in the coupon, and learn how you can earn this tractor.

AMERICAN CORN ENTERING SPANISH MARKET

A TRIAL order for 1,000 tons of corn was recently placed in the United States by a firm of Bilbao, Spain, says a report to the Department of Commerce by Consul Wolcott, Bilbao. Previously the corn imported into this section has been entirely from Argentina, but if this order gives satisfaction it will doubtless result in large imports of the American product.

FARM BUREAU NOTES

TO shed additional light on co-operative marketing problems which confront American farmers, the American Farm Bureau Federation has commissioned Samuel Adams, editor of the American Fruit Grower, to make a thorough study of co-operative marketing in the old world countries where the idea was born and where it has succeeded best, says the State Farm Bureau. Mr. Adams will sail for England June 3 where he will begin a series of investigations which will bring him into contact with noted commodity organizations in England, Ireland, Denmark, Norway, Sweden, France and Germany.

Clifford Thorne, legal counsel and director of the American Farm Bureau Federation's transportation department, has resigned to enter the race for the republican nomination for United States Senator from Iowa. He would succeed Senator Charles A. Rawson who was appointed recently to fill the unexpired term of Senator Kenyon, celebrated as the leader of the agricultural bloc in congress.

The Central Co-operative Commission association at St. Paul, Minn., is making history in co-operative live stock marketing. It was established eight months ago. January 1, 1922, it declared a patronage dividend of 25 per cent and a stock dividend of 8 per cent and it paid back to the farmer shippers \$19,124.22, or \$2,349 more than the farmers paid in as capital stock. Since January 1, 1922 it has accumulated profits of more than \$30,000 for its patrons. The patronage dividends amount to about 60 per cent of the regular commission charges made by the association. The association has 375 local co-operative associations, according to advices to the State Farm Bureau.

New York Farmers Would Regulate Acreage

Empire State Potato Growers' Co-operative Association Would Prevent Over and Under-Production

WHAT is likely the first organized effort to regulate the acreage of perishable crops in order to prevent under and over-production is being undertaken by the Empire State Potato Growers' Co-operative Ass'n, of Rochester, New York. This association has made an investigation into the crop plans of the farmers of New York and other states to determine how much if any they proposed to increase their acreage of potatoes and cabbage over last year.

"The acreage of these two crops," reports Mr. L. J. Steele, general manager of the association, "varies surprisingly from year to year. Estimates of the U. S. Department of Agriculture shows that the total 1919 cabbage acreage of the U. S. to be 87,497 acres which yielded 47,023 cars. During 1920 the total acreage was increased to 115,838 acres or 32 per cent and this large acreage produced 82,373 cars or an increase of 71 per cent over that of the 1919 crop. It is safe to say that as a result of such a large crop and yield, at least one-third of the crop never left the farms."

Two separate investigations were undertaken in New York, one by the association and the other by Mr. J. B. Shepard, agricultural statistician for the state of New York. A total of 444 replies were received to questionnaires sent out to farmers. These replies indicated that the 1922 acreage would exceed the 1921 acreage by 14.4 per cent and the 1920 acreage by 16.4 per cent. The association concludes that if the average for the entire state should actually be as large as indicated by the reports and the yield was as good as in 1920, the state would produce the largest crop in its history. Taking the entire United States, a 14 per cent increase in acreage would mean a total crop under normal growing conditions of over 400,000,000 bushels which is far too large a crop for this country to consume under present conditions.

The high prices of cabbage the last few months have inspired the farmers to plan a very largely increased acreage to this crop, as shown by reports from 227 farmers. These reports indicated an increased acreage of 35.8 per cent over the 1921 acreage and of 23.5 per cent over the 1920 acreage. If this increase actually materializes New York will produce 4,000 more cars of cabbage in 1922 than she did in 1920 when the farmers "served their cows with so much potato salad or drew so much cabbage out of storage on the manure spreader."

NEW ENGLAND PROSPECTS

The Agricultural Statistician of New England reports as follows:

"The potato acreage seems likely, in most sections to be above equal to that of last year, altho to date receipts of fertilizer in Northern Maine might seem to indicate a small decrease. However, it is expected that enough fertilizer will arrive in time for an acreage equal to last year's in Aroostook."

MICHIGAN PROSPECTS

The Agricultural Statistician of Michigan writes as follows:

"From the information I have to date, it is probable that there will be an increase in the acreage of potatoes planted in Michigan this year. Indications seem to point to a considerable increase in the acreage of cabbage this year. The excellent price obtained in 1921 is the principal stimulus for the current season."

WISCONSIN PROSPECTS

The Agricultural Statistician of Wisconsin, basing an opinion upon conversations with leading growers and upon his general knowledge of conditions, does not anticipate any change in the potato acreage in Wisconsin as compared with last year. The cabbage acreage however, he expects will be 12.5 per cent greater than in 1921. This proposed increase he states would not bring the acreage quite up to the 1920 acreage. If Wisconsin plants the same acreage of potatoes as last year and gets a yield per acre equal to the average for the last ten years, she will produce 49 per cent more potatoes than last year and more even than the big crop of 1920.

COLORADO PROSPECTS

Mr. W. C. Hood, Jr., manager of the Colorado Cabbage Exchange, which handled over one-half of the cabbage crop of that state last year and expects to handle a much larger proportion during the coming season writes that according to the County Assessors returns last year, 3074 acres of cabbage was grown in Colorado, compared with 4,500 acres expected to be grown this year.

The increasing prominence of the northwestern potato region is illustrated in the case of North Dakota which by March 18th had shipped nearly six times as many carloads as last season to corresponding date.

A group of eight of the newer commercial potato growing states, Washington, Oregon, Idaho, Colorado, Utah, Montana, North and South Dakota show gains of 18,422 cars compared with the same period last season. This gain is equal to three-fourths of the season's total gain of potato shipments from all sections.

Potato acreages in North and South Dakota will be doubled and the acreage in Northern Minnesota increased 25 per cent this year, Hugh J. Hughes, State Director of Markets, predicted last week. Mr. Hughes returned recently from a meeting of potato growers of the northwest, conducted at Grand Forks. (From the New York Packer, Saturday, April 15th, 1922)

SUMMARY

"The reports to date taken as a whole," says Mr. Steele, "indicate a proposed increase in acreage of both potatoes and cabbage. Probably these expectations will shrink somewhat and then, with the acreage in, the weather over the Northern States will determine the total production. If the acreage is increased as indicated, an unfavorable season probably would prevent over production. A normal season and normal yield probably would produce all and perhaps more, than the markets could assimilate and weather and other conditions favorable for these two crops probably would result in serious over production."

"Over production and under production both are to be avoided. Both result in great economic losses; consumers, as well as producers suffer. Production is determined finally by acreage and the weather. We cannot control the weather but by avoiding extensive fluctuation in the acreage, we can do much to stabilize the business of growing these two crops."

It is not necessary to dwell upon the disastrous consequences which will follow if this huge contemplated acreage is planted. An enormous crop of grain can be grown without permanent financial loss, but such perishable crops as potatoes and cabbage, in the production of which Michigan ranks so prominently, can easily be produced in so great an excess of needs as to cause millions of dollars loss. This should be avoided, and it would be a fine thing if all the leading potato states could organize a campaign of education along the lines inaugurated by the Empire State Potato Growers' Ass'n.

Nicol Heads Fruit Agency

JAS. NICOL, president of the Michigan State Farm Bureau, was named president of the temporary board elected at Chicago April 28th to organize a National Sales Agency to market fruit, under the name of the "Federated Fruit Growers."

The establishment of this agency is the result of the work of the Producers National Fruit Marketing Committee appointed by the American Farm Bureau Federation to develop an improved marketing system for the fruit growers of America. This committee, consisting of 22 men, has made a complete analysis of the various factors affecting fruit marketing, has closely studied the work of the various co-operative fruit marketing organizations and as a result has developed a plan for the correlation of these local co-operatives into one national organization.

The new organization will open offices in Chicago at once. The first step will be the creation of a sales department. Application for incorporation will be filed immediately.

National standardization of fruit grades and an advertising campaign to increase consumption of all fruit, will be two of the jobs undertaken by the Federated Fruit Growers.

Michigan Sends Prize Holsteins to Great Dairy Show at Kansas City

By H. W. NORTON, JR.

Secretary Michigan Holstein Breeders' Ass'n.

The other Spillane entry, Johanna Korndyke DeKol Aaggie Vale, No. 241287, is a beautiful, light-colored cow, straight as an arrow. She is well along on a yearly test and should finish with 1,000 pounds. She has five 30-lb. sisters and her sire is a grandson of Belle Korndyke, dam of Pontiac Korndyke.

Mr. Aitken will send Rosie Mercedes Butter Boy, No. 210351, the 31-lb. cow which will be remembered as the champion at the Syracuse National last year. She looks better than ever now and has just completed a record of 965 pounds of butter from 20250 pounds of milk in the year and will freshen early in the fall to a 1000-lb. son of King Ona.

The other Aitken entry, Bertha Vale DeKol, No. 243074, is a wonderfully deep-bodied, low down cow with a great udder and veining system. She has just completed a seven-day record of 818.5 pounds of milk and 30.28 pounds of butter and has been bred recently to a son of King Ona.

One of the most interesting journeys made during the inspection was through the Frankenthuth district in Saginaw county to the farm of Conrad Hecht, where was found Pietertje Johanna King Hengerveld, No. 303075, one of the largest cows of the breed and the largest cow the

THE Michigan Holstein Breeders' Ass'n has just sent in the twelfth entry to the sale committee, thus completing the Michigan quota for the National Holstein sale. The task of making the selections was delegated to Professor O. E. Reed, of the Dairy Department of the Michigan Agricultural College.

G. L. Spillane & Son Company are sending five animals, including a family of four generations headed by Vale Cornucopia Fayne, No. 268667, a wonderfully good seven-year-old daughter of King Hengerveld Palmyra Fayne, one of the best bulls ever owned in Michigan. She has a 32.5-lb. record at five years and is due in August from service to a 1000-lb. son of King Ona.

The second generation of this remarkable family is represented by Eva Fayne of Cluny, No. 401615, who has just completed a year's record as a Junior four-year-old with 961 pounds of butter and 22756 pounds of milk. She is sired by a son of Maplecrest Pontiac Application, the 35-lb. daughter of Pontiac Aaggie Korndyke with a yearly record of 1344 pounds, and will freshen in July to King Bertjusca.

The third generation, Vae Mabel Fayne of Cluny, is a beautiful three-year-old daughter of Eva Fayne of Cluny and was sired by a grandson of Mabel Segis Korndyke. She will freshen in the fall to King Bertjusca, and her six-months-old calf is by this same sire.

committee had ever seen. She weighed 2,225 pounds just before freshening and had calved the day before the committee arrived. She is a remarkable cow in every way, a wonderful individual and a great producer. She has a record of 746.4 pounds of milk and 33.995 pounds of butter in seven days and 3012.4 pounds of milk with 141.23 pounds of butter in thirty days. Her sire, King Hengerveld Palmyra Fayne, has already been mentioned as sire of the 32.5-lb. cow Vale Cornucopia Fayne, in the Spillane consignment.

With the big cow will go her daughter, Pietertje Elzevere Cornucopia, who was on test when the committee visited the farm and had better than 28 pounds. Her sire is a grandson of K. P. Pontiac Lass, the first 44-lb. cow.

Mr. Hecht has a small herd, but he has some wonderful animals, including five daughters and a son of the 34-lb. cow, as well as her dam and a number of her granddaughters.

Loeb Farms at Charlevoix will send Charlevoix Marbury Pledge, No. 681453, a heifer of wonderful type and conformation. She stood first in her class at the West Michigan State Fair last fall and her sire, Charlevoix Marbury, was the first prize yearling bull at the National Dairy Show at Chicago in 1920. Her dam as a yearling has a record of 14626 pounds of milk and 503 pounds of butter. She is a fine representative from this great institution.

Is Bovine Tuberculosis a Menace to Human Life?

State Health Department Insists that Relationship Between Bovine and Human Tuberculosis Has

Been Definitely Established

By THE EDITOR

THE editorial published in the April 15th issue of the Business Farmer on "Bovine Tuberculosis" aroused considerable comment and criticism. Some of our critics have looked upon the editorial as a pitiful example of ignorance, while others have accorded it a better reception and have set about to answer the questions asked and to disprove the conclusions drawn.

The question of the relationship between bovine and human tuberculosis and danger of infection from the drinking of milk from tuberculous cows is all-important. It involves on the one hand the slaughter of tens of thousands of prized dairy cattle and huge economic loss to governments and individuals, and on the other hand the far more important consideration of human health and life. The questions we raise today upon this subject are not new. They have been asked many times before, not only by ignorant laymen, but by men of science. For years science has wrestled with the question and hundreds of experiments have been performed tending to prove or disprove the danger of bovine tuberculosis to the human race. As recently as 1901 the eminent German scientist, Koch, "threw a bomb-shell into the conference (British congress on tuberculosis) when he affirmed that the difference between the bovine tubercle-bacillus and the human * * * was such that one was not contagious to the other species, or was so slightly contagious that the number of cases of tuberculosis thus produced might be left out of consideration without impairing statistics." In 1911, so wrote Jos. Walsh, A. M., M. D., physician to the Henry Phipps Institute and to the White Haven Free Sanatorium for Poor Consumptives, and recorded in the American Encyclopedia, "the question of the contagiousness of the bovine bacillus for man is practically still under consideration." This authority further wrote that the old theory that tuberculosis was the result of ingestion with such food as milk (because bottle-fed children seemed especially susceptible to the disease) has undergone a change, because the "majority of clinicians of our day (1911) believe that children manifest the intestinal form of the disease more frequently simply because the intestine is more susceptible at that age" than in the adult stage.

Therefore, it may be seen that up to 1911 the relationship between these two types of tubercle-

bacillus had not been determined, and no such conclusive evidence of such relationship has been established since to make our present skepticism appear either foolish or ill-advised.

Farmer Writes His Experience With T. B.

One of the purposes of our editorial was to stimulate thought and bring forth expressions of opinions from our readers. Judging from the letters that have been received this object was attained. Among the communications was the following from Mr. R. A. Wilson, of Kingsley, Grand Traverse county, Mich. Mr. Wilson speaks from the bitter depths of experience and his letter presents a strong presumptive argument in favor of continued eradication. He writes:

"I have never knocked the policies of the M. B. F. but your editorial 'Bovine Tuberculosis' in your April 8-15th issue I cannot pass by without comment and in view of the influence of your editorial I think you should publish another viewpoint.

"As to the first point you make, while there is no doubt a very close relationship between bovine and human tuberculosis I believe the best authorities claim there is a slight difference in the germs that cause the two. It does not follow, however, that the bovine tuberculosis is not transmissible to human beings. In fact a majority of the tuberculosis children are apparently afflicted with the bovine type. Where do they get it? Your second thought. Should there be a shadow of a doubt of this danger, the slaughter of reacting dairy animals is one of the greatest economic crimes of the age, is open to question from an economic point of view, as the gain to the live stock industry through the eradication of tuberculosis is incalculable. But many who value the lives of their children would prefer to reverse this idea and say, 'If there is a possibility of murdering our children through infection from milk from tubercular cows, destroy every reacting animal, even though we must suffer an economic loss,' which is very doubtful.

"While the suckling child might not take the disease from a tubercular mother, certainly if the mother's breast were tubercular the danger would be imminent and the milk glands are very apt to be affected in a tubercular cow.

"If science has not erred, God has. Now science has erred before and doubtless will again though it is hard to find a reason for your presumption that the findings of science on the subject of bovine tuberculosis, reached after years of painstaking investigation, are wrong. God never errs. God intended milk as a food and there is no better food than pure milk from healthy cows. Should we blame God if milk from a sick cow is dangerous?

"God placed animals on earth intending us to use their flesh for food. If we eat diseased beef or if we eat pork from a hog suffering from trichina and we suffer from our carelessness or mistake, is God to blame?

"I am writing this because I have been through the mill and believe the attitude taken in your editorial is a very serious mistake.

"About nineteen years ago I purchased some registered Shorthorn cattle. I now realize the disease has been in my herd ever since, though I did not know it until about a year ago. It has completely cleaned me out of cattle.

"About eight years ago we found one of our children's spine was getting crooked. The doctors did not say what caused it but said it looked bad for the boy. Plenty of fresh air night and day and good food saved him but it left him with a slight spinal curvature and a shrunken lung. Three of my younger children and possibly a fourth have now apparently contracted the disease. Where did they get it? We know of no way except through the cows as our families are all free from any taint of the disease. The children have never to our knowledge come in contact with the disease from any other source.

"Now don't knock. Let us get after this menace and eradicate it even though it does hurt our pocketbooks a little."—R. A. Wilson, Kingsley, Mich.

One cannot help but sympathize profoundly with Mr. Wilson, but his experience does not altogether prove the case. We agree positively with him "if there is a possibility of murdering our children thru infection from tubercular cows, then destroy every reacting animal," no matter what the economic loss. It is true that God is not to blame if thru carelessness or ignorance we mortals consume the flesh of sick cows. But the probability of our eating diseased meat is remote because an animal usually shows symptoms of her ailment by the time her flesh is poisoned and moreover, the cooking of the meat usually renders the disease germs harmless. The probability of contracting disease from drinking milk from a diseased (Continued on page 17)

Remove the Burs from the Collars of Farm Organizations

By R. C. HOISINGTON

Shiawassee County Farmer

ACCORDING TO THE CARTOONISTS.



"Gosh, did I use to look like that?"

not wanted. And I believe farm organizations will never prosper and accomplish much of anything until he is thrown out and told in plain language that we do not need or want him.

Now that I have a collar that will not chafe or gall the shoulder, the next important parts are the hames and traces. The right hame and trace is co-operative buying, and the left hame and trace is co-operative selling. For it is thru these two things that the farmer must do his greatest work. Few farmers have ever bought or sold anything. We always let the other fellow sell to us and buy from us, he sets the price coming and going.

The back and belly band together are the farm home. As this part of the harness is the central portion so the farm home should be the central part of the farmer's working harness. The strap which runs from the back band to the hip is farm legislation. The breeching and hold backs are high taxes. The straps which hold up the

breeching are good roads and good schools. While these are very essential to the farmer's harness still they help to hold up the high taxes. The brass balls on the hames, and other brass buttons, rosettes and buckle shields are electric lights and other luxuries. While they are not essential they make the harness much more attractive.

As the bridle of a harness is used for the purpose of holding a horse's head up and guiding him, so is the bridle of this harness. The check rein always goes from the bridle to the back band and so does it in this harness. For what can better cause a man to hold his head up than a good farm home? The rest of the bridle is the guiding portion and is made up of the agricultural papers, and bulletins, the agricultural college and experiment station, crop reports and county agents. The blinders are the false reports and statistics which are sent out by big business to fool the farmer. The lines of a harness are the direct connection from the master mind to the horse. The lines of my harness are religious activities. For a farmer without the help of his creator, is like a horse without a driver.

Now I have the horse all harnessed, and it cannot be denied that he is well harnessed; but what shall we hitch him to? Experience has taught me that it is very important to be careful what you hitch a good young horse to. His load must be something that he can move or he will fly back and perhaps not pull again. It must not be too light or it may run on his heels and then there is trouble. Again all loads are not what they look to be. Sometimes a small stump has some very long deep roots, while some very large ones set almost on the top of the ground. Also some loads move easily for a time and then we come to a hill or some soft ground. Good footing is essential to a hard pull. I have often said that most anyone could drive if a master had charge of the loading. After these few thoughts I again ask, what shall we hitch our horse to?

A HARNESS is a device by means of which power may be used to do useful work. But when most of us hear the word harness, we think of the device or working gear used on a horse. It is of the common horse harness that I shall write. In order to make my comparison easier to grasp, I shall let the farmer be represented by a horse.

In pre-war days the papers and magazines used to picture the farmer as a hump backed, bow legged old codger with his trouser legs hung up over his boot straps. He always had long hair and whiskers and either a spear of grass or a corn cob pipe in his mouth. But lately they are picturing the farmer as a big strong robust youth. He is dressed as his city cousin might be, or sometimes he is shown in overalls; but they are always new and full of starch, not baggy at the knees and covered with patches as they more often really are. But be that as it may, I like the last representation better and so will represent my farmer by a prancing young colt. For what could be a more beautiful representation of strength and vigor?

I consider the first essential of a good harness, is a good collar; one that is neither too hard nor too soft, too large nor too small. The collar of my harness is made up of the farmers organizations, the farmers clubs, the grange, the Gleaners, the farm bureau, etc., all taken together. The stuffing of this collar is made up of the individual farmers and their families. When a collar maker makes a collar he is very particular about the stuffing, he sorts it very carefully and if he finds undesirable material in it, like a weed or thistle stem, he throws it out. That is just what we should do with the members of our organizations. If we find a thistle stalk we should throw it out. Our most common thistle stalk is the town or city fellow who gets into our farm organizations under the pretense that he is a farmer or is vitally interested in farming. I call him a thistle because he, like a thistle, is always trying to get in where he is

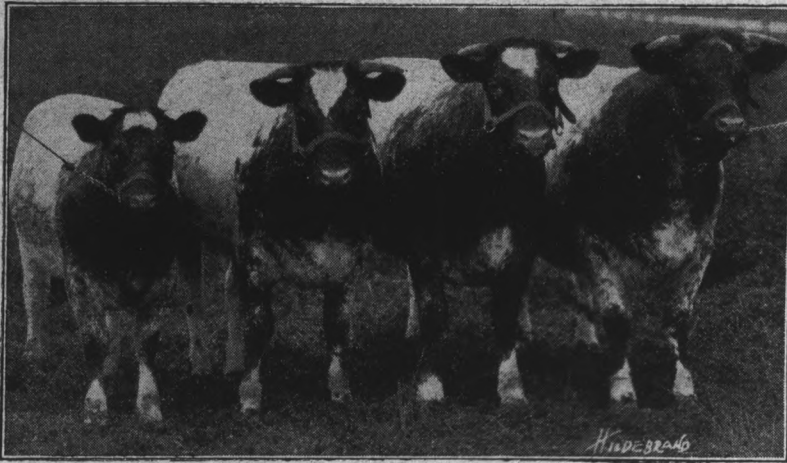
Shorthorn Herd of Which all Michigan is Proud

C. H. Prescott & Sons Have Built up One of the Finest Pure-Bred Herds on Western Continent

By H. H. MACK

THE estate of C. H. Prescott & Sons, Tawas City, Mich., has come to be familiarly known, throughout the United States and Canada, as the owner and developer of one of the best herds of Shorthorn cattle on the western continent. The writer has good reason to believe, however, that many who have an acquaintance with the Prescott family, here in Michigan, do not understand who are included in the firm name, C. H. Prescott & Sons. The almost universal opinion seems to be that the elder Prescott, who resides at Tawas City, is C. H. Prescott and that the sons mentioned in the firm name, are George A., Jr., and Charles T. Prescott. C. H. Prescott was the grandfather of the young men mentioned above. The senior Prescott, so well known here in Michigan, answers to the name of Geo. A. Prescott, Sr. He is the oldest son of C. H. Prescott and the senior member of the partnership which includes two younger brothers. Besides the real estate and live stock interests here in Michigan, the estate owns and operates the Saginaw Bay Lumber Co., with offices and yards at Cleveland, Ohio.

At the bottom of this page are given illustrations of the three wonderful herd bulls which have for the last few years been in use in the Prescott herd. Lorne, an imported bull, was purchased at an auction sale in Chicago, a few years ago, for \$2,500; before the bull was settled for, the new owners were offered \$500 for their bargain. Showing how rapidly this bull gained in popularity it may be of interest to note, that before he had been on Richland Farms a year, \$6,500 was offered for him and refused. The first four heifers sired by Lorne are shown in the accompanying cut; all of these and one more were sold for an average of \$1,900. The first two bulls, from this sire, averaged \$700. There is on the farm a splendid 3-year-old bull sired by Lorne and a perfect replica of his noted father; this bull is out of one of the best cows the Prescotts ever owned. This promising young sire is held in reserve as an insurance against accident to the older bull.



Heifers the Get of Imported Lorne

In the main, Lorne has been a heifer breeder and there are still many females in the herd out of him. On the occasion of a recent visit to the farm by the writer, he was shown several young calves, all closely resembling the animals in the accompanying group of four. So uniform in color and other physical characteristics, are the animals sired by Lorne that the stranger, visiting the farm for the first time, soon learns to identify them at sight. Lorne was grand champion bull at the Michigan State Fair in his senior yearling form; as a two-year-old he stood in eighth place at the International with 30 wonderful bulls in the class. In 1920, his get won third prize at the International.

The white bull, Newton Champion, while he has never been shown, has furnished many prize winners, the first four bulls-sired by him were sold for an average of \$3,100. Many snow white bulls, sons of this wonderful sire, have left Richland Farms and are, today, making Shorthorn

history as herd headers. On the farm, at present, is a white yearling bull by Newton Champion and out of one of the firm's best cows, registered under the name of Richland Astronomer; he has one of the finest heads the writer has ever seen on a bull and a wonderful loin, rib and heart girth.

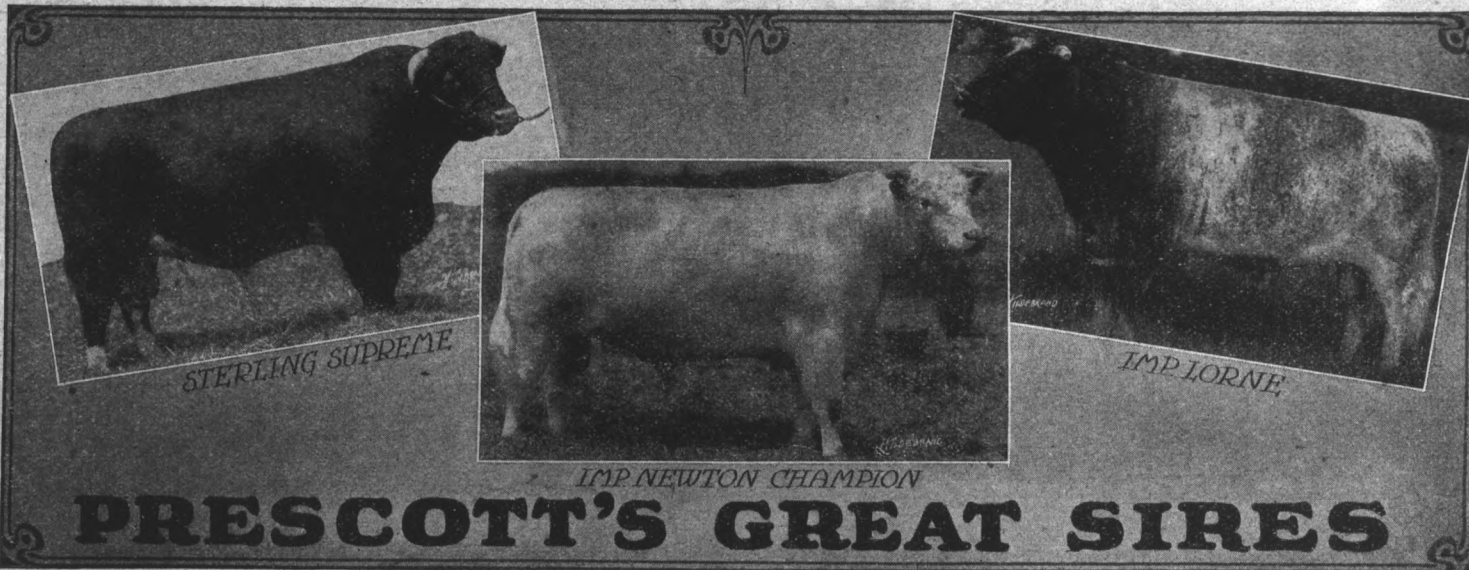
Sterling Supreme, now in active use in the Prescott herd, is five years old, a beautiful dark red and without exception the "widest" bull for his weight that the writer has ever seen; this bull is producing some wonderful young Shorthorns when bred to females sired by the imported bulls, Lorne and Newton Champion. Some of the finest heifers ever produced in Michigan, were sired by Sterling Supreme. The rich color and matchless bloom of the calves sired by this red bull, when crossed with the whites and roans produced by the

other two bulls in the herd, has probably never been surpassed in the annals of Shorthorn breeding in America. The owners of this herd have now gone far enough in cross-breeding the get of these three sires so that the undertaking is no longer an experiment.

The Prescotts are extremely proud of the record of Richland Kate, sired by Sterling Supreme and out of the imported cow, Ocean Queen. Richland Kate was the first prize senior heifer calf and reserve junior champion at the Michigan State Fair, 1920; she won fifth prize in competition with 40 others at the International of 1920. She was sold in her senior calf form at the International sale, of 1920, to Maryvale Farms, Youngstown, Ohio, for \$1,750; as a senior yearling she came strong the next year winning first position at Illinois, Ohio and Indiana state fairs and fourth place in her class at the International, of 1921, in competition with 30 entries. Fairy Lass 3rd, is another young cow that bids fair to

reflect great credit upon her sire, Sterling Supreme; out of the imported cow, Fairy Lass, she was good enough to sell for \$1,250 at the International, of 1920, going to John Borden of condensed milk fame, to be used in his foundation

(Continued on page 19)



PRESCOTT'S GREAT SIREs

Farm Accounting Teaches Rural Boys and Girls Secrets of Success

BY H. B. KILLOUGH

Department of Farm Management, M. A. C.

WHAT does the boy or the girl who has gone from farm to school in the morning and back again at night ten long years and is now looking eagerly to the time when he or she will break away from the comfortable old nest to seek a fortune behind some city counter really know about the business of farming? Ask a group of boys and girls how much money is invested in a farm, what the operating expenses are and how much greater the gross receipts; how many eggs a hen should lay or what to feed a cow. Do these boys and girls know that the turn-over on a farm is once a year, that farm credit needs are from six months to five years and that success in farming is not all just good luck and favorable conditions? Why should they know, if attention is not called to these things?

In Wexford County, Michigan, eighty boys and girls in five consolidated schools are keeping records on their own home farms. They have taken inventories; they are posting sales and expenses, their fathers are keenly interested, and by January, 1923, father, daughter, and son will know what the profits were or why the loss.

Worth the trouble? Surely so; a high school credit is worth working for and, besides, some

boy or girl will win a free trip to Michigan Agricultural College. Can you imagine yourself tipping the porter, handing the waiter a smile, inspecting laboratories with professors, and sending all the bills to a group of Wexford County Bankers? The bankers have offered this prize trip to the boy or girl who keeps a record of fathers' farm most neatly and completely and analyzes it most accurately.

Mr. Wm. F. Johnson, County Agricultural Agent, suggested the plan to them. He is a believer in boys and girls. Mr. Roy Noteware, County School Commissioner, is giving the project hearty support. He has a vision of greater farm incomes, more rural wealth, smaller tax rates, and big, properly equipped, consolidated schools. Messrs Stack, Clark, Walton, Davis and Coburn, school superintendents with vision, ability, and enthusiasm are putting it across. Last week's lesson was on the keeping of feed records. Earl Adams milked six cows. His feeding record for April was as follows:

Kind of stock	Number of animals	Kind of feed	Daily ration	Cost per unit	Total cost for month
Cows	6	Silage	180lb	\$ 5.00 T	\$13.50
		Alfalfa	60lb	20.00 T	18.00
		Ground fd	50lb	24.00 T	18.75

Earl was less than ten minutes in making the entry. He had previously weighed up the feed for one day. He figured the cost and multiplied by thirty to get an estimate of total cost for the month sufficiently accurate for all practical purposes.

Last week Mr. Jones of Wexford County who is keeping an M. A. C. farm account book brought his summary to one of the consolidated schools to show us that for every \$100 worth of feed given to poultry last year he got \$300 in return and that for every \$100 worth of feed which went into dairy cows he got only \$125 in return. The hens were high producers. They laid an average of 100 eggs each (not a lot for a record hen, but about the average for common farm hens). His cream sales were only \$60 per cow as compared with \$150 per cow from other herds of which we have records.

The boys and girls of Wexford county are digging the facts right out and holding them up in the broad light of reason and good judgment.



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BUCK-HORN IN CLOVER SEED

We have about fifteen bushel of clover seed which is about 25 per cent buck-horn. The elevators here don't want to buy it for seed. I have been told it is used for dyeing. Could you recommend any place where I could sell it?—M. McK., Linden, Mich.

I would suggest that you send samples of your seed to the following firms:

Farm Bureau Seed Department,
221 N. Cedar St., Lansing, Mich.

S. M. Isbell Seed Company, of
Jackson, Mich.

H. E. Chatterton & Son, of Lan-
sing, Mich.

These firms are equipped with machines which will safely take out buck-horn, reducing its content to a fraction of a percent.

The only use which clover seed has ever been put in is seeding. I have never been able to establish the claim that any use of clover was ever made in the dyeing industry.—J. F. Cox, Professor of Farm Crops, M. A. C.

SPOT ON PLASTER

Can you tell me what to remove a spot of a plastered ceiling? There was nothing spilled that could cause it. It looks like grease and has come through wall paper twice. It is a new house. I thought it might be something in the plaster.—Mrs. O. N. J., Edmore, Mich.

It would be unusual if there was anything in the plaster which would cause such a spot. If this is the case, that portion of the plaster should be removed and new plaster put in. It is more likely that the spot is caused by a leak from the water or waste pipe, or possibly from a leak in the roof. In case of a leak in the roof it should be repaired. Water and waste pipes may be inspected and repaired by removing boards in the floor above.—Floyd E. Fogle, Asst Prof., Farm Mechanics.

RENTING ON SHARES

A man has asked me to work his farm this spring, he is to furnish team, implements and seed. He said he would pay me whatever I thought would be right, providing it wasn't too big a price. What would be considered a fair price to ask of this man? I am to do all the work on the farm as if it were mine.—R. Mc. Benzle County, Mich.

Prof. Eliot of the M. A. C. estimates that a fair division in such a case would be two-thirds to the owner and one-third to the renter. —Editor.

WHAT KIND OF BEANS SHALL I SOW?

I am in a quandry to know just what to do regarding the kind of beans to sow this year. Last year I raised the red kidney but do not know whether it would be good business policy to sow them again this year or not. Will you kindly give me your views on the matter? What does the outlook seem to be for that variety?—W. N. T. Pigeon, Mich.

The outlook for red kidneys is not quite as promising as two or three years ago. The West Indies have always been the principal market for this variety but the low prices of sugar have decreased their purchasing power and they are not taking so many as formerly. However, with continued improvement in the sugar market they should again be fair prospects for red kidneys next fall and winter. We probably won't see \$10 red kidneys for some time to come, but they can still yield a profit. The navy bean market is improving right along and the acreage will probably be large. Why not divide your field and plant part to red kidneys and the rest to navies? —Editor.

CROP ON LIGHT SAND

I have ten acres of light soil. The field will raise good corn and beans. I had it in potatoes last summer and the crop failed me with blight. Do you think I can get a stand of sweet clover on it without lime by seeding 12 lbs. of good seed with oats early this spring? I did not intend to plow it, there was not a weed in my potatoes nor any grass. I got a good stand of Alsike clover on it once. I have 122 lbs. of sweet clover for it. Would you put on 30 lbs. of alsike clover and 30 lbs. of timothy with it or just the sweet clover, and how many pounds to the acre? The sand is light and in good shape for seed just by harrowing it. Does it want to be sowed deeper than other clover or just before the drill so as to cover it a little deeper, then roll it good. How would fine barnyard manure be on the poorest places?

I have an apple orchard of four acres in good condition, heavy alfalfa sod for corn last summer, fall plowed in No. 1 shape. I want to sow it to oats and cut green for hay. What would be best to sow with the oats, cow peas, and what kind and how many oats and how many peas? How is sand heavy vetch? Will it live in the ground all winter? Is it what the seedsmen says of it? I want to seed this four acres to alsike June clover and timothy.—R. B. J., Holly, Mich.

Light sandy soil is quite likely to be deficient in lime and high yields of sweet clover are very seldom secured on soils that have a low lime content.

If you will sample the field in 6 or 8 places and send a quart composite sample to your county agent, he will test the soil for acidity and advise you as to the amount of lime that should be applied.

If the soil is found to be acid, would not recommend the seeding of sweet clover until either 2 tons of ground limestone or its equivalent in some other form of lime has been applied. If the soil is not acid, would recommend seeding the sweet clover alone at the rate of 12 to 15 lbs. of scarified seed per acre. An application of barnyard manure would be of considerable value.

Would suggest seeding Canada field peas with the oats for hay. Cow-peas are an entirely different crop than Canada field peas and are not adapted for being sown with oats. Would suggest a mixture of a bushel of oats and a bushel of peas sown at the rate of from 2 to 2 1-2 lbs. per acre.

Sand Vetch may also be sown with oats for hay. When Vetch is used, would suggest 2 bushels of oats and 20 lbs. of hairy vetch seed per acre. When sown in the spring vetch should live over the winter, if conditions are favorable.—C. R. Megee, Associate in Farm Crops, M. A. C.

MOLDY SILAGE

I would like to know through the Service Department whether or not moldy silage is poison to cattle or not.—A. S., Paris, Mich.

While silage containing a small amount of mold has been fed in many instances to cattle without causing any serious results, it is much more liable to cause injury if fed to horses or sheep. Badly moldy parts of the silo should not be fed but where a small amount of mold is found the silage may be fed to cattle without expecting any serious trouble if given in small amounts at first. If care is taken to have the silage well-tramped and that it contains sufficient moisture there is little danger that silage will become moldy.—D. E. J. Edwards, Asst Professor of Animal Husbandry, M. A. C.

CONCRETE BARNYARD

I wish to build a cement barnyard and would like to know just what proportions to mix the cement and gravel to have it hold up. Is it a benefit to have the top of the newly laid cement covered with sawdust? Could you give me an estimate of the number of yards of gravel and barrels of cement it would take for a thousand square feet of barnyard? What kind of a foundation is best, sand or cinders? Any information regarding the construction of a cement barnyard, manure pit, etc., would be greatly appreciated.—C. F. E., St. Clair, Mich.

A test for cleanness may be made by putting 4 inches of the gravel in a glass jar, filling with water and shaking until thoroughly mixed, after which it is allowed to stand. A thickness of more than 1-4 inch of clay or silt on top would indicate that it is not clean.

To secure good concrete it is also necessary that the gravel be graded in sizes from fine grains to coarse and for careful work engineers usually specify a three-part mix, as 1 part cement, 2 parts sand and 4 parts gravel. Sand ordinarily is understood to be anything which will pass through a screen having 1-4 inch mesh and gravel is understood to be anything which will be retained on the same screen.

While it is sometimes possible to secure this relationship of sand and

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gravel as it comes in the pit or bank, it more often happens that the material contains entirely too much sand—sometimes as much as 3 or 4 parts sand to 1 part of gravel.

In nearly all mixes of concrete it is desirable to have the amount of sand about one-half as much as the gravel. Where gravel of good quality can be obtained for work like a cement barnyard, a mixture of probably 1 to 6 or 7 would be specified and the floor should be laid not less than 4 inches thick and better 5 or 6 inches.

The easiest way to construct this floor would be to use one-course construction, that is to say, a concrete which gives a good enough surface so that it is not necessary to plaster on a surface coat.

It is of great benefit to cover this floor, especially if exposed to the wind, with sand or sawdust which should be kept wet down for a period of at least two weeks. Much concrete which is built would be of immensely better quality if it were supplied with enough water to complete the process of setting.

So far as foundation is concerned, good drainage is the essential thing and it makes no great difference so long as a porous material is used whether it is sand or cinders.

In estimating the materials for 1000 square feet of barnyard, I would suggest using a 1:2 1-2:5 mix with a floor 4 inches thick on a firm, well-drained sand or cinder base. This floor of 1000 square feet of surface would then be equal to 333 cubic feet of concrete. About 18 cubic feet of cement for each cubic foot of concrete would be required or about 60 cubic feet of cement. Since one bag is counted as a cubic foot this would mean 60 bags of cement. Two and one-half times this many cubic feet of sand would be 150 cubic feet or 5 1-2 cubic yards of sand and twice as much gravel as sand would be 11 cubic yards of gravel.

It is customary to consider a cubic yard as one load of gravel.

If a two-part mix is used, as cement and bank run gravel, then it is comparatively easy to calculate the amount of material needed, which would be as much gravel as cubic feet of floor—333 cubic feet—and if the proportion of 1:6 mix were used, this would figure 1-6 of 333 cubic feet or 55.5 bags of cement.

A 1:6 mixture would be nearly the same as 1:2 1-2:5 mix, using 3-part proportions.—H. H. Musselman, Professor of Farm Mechanics, M. A. C.

BROME AND RYE GRASSES

Kindly describe nature, uses, cultural methods, etc., of Brome grass and rye grass. Are they adapted to Michigan and where may seed be obtained?—Geo. W. Hart, Montcalm County, Mich.

Brome grass is one of the most drought resistant of the cultivated grasses and is grown to quite an extent in the Dakotas and certain sections of Montana. It has not proven to be very valuable under Michigan conditions. It has been tested different times in the past 20 years and while fair yields have been secured, other grasses have been found to be more satisfactory.

Rye grass is one of the important grasses of European agriculture. Under Michigan conditions, it does not compete successfully with June grass and timothy.

Both Brome and Rye grass seed may be secured from any reliable seed company.—C. R. Megee, Associate in Farm Crops, M. A. C.

TEACHERS' RETIREMENT FUND

In regard to the law governing the "Teachers' Retirement Fund," can teachers in cities or elsewhere vote to keep outside the law and consequently not be liable for the usual assessment of one-half of one per cent of their salaries as other teachers are?—J. L., Rushton, Mich.

Section 6 of the teachers' retirement fund act provides that "all teachers, except those, who, being under contract when this act takes effect, do not elect to come under its provisions, shall contribute to the retirement fund. . . ."

The amount teachers shall contribute depends upon the number of years she or he has taught, and varies from one-half of one per cent

of the annual salary of those who have taught five years or less, to two per cent of the annual salary of those who have taught 15 years or more.

The act further provides, "after this act takes effect, every teacher contracting to teach in the public schools, including all who under any previous contract of employment have not elected to come under this act, shall by so contracting, be conclusively deemed to agree to pay and to authorize the deduction from salary of the assessments herein provided."

Therefore, no teacher is exempt from the provisions of the act.—Editor.

MOLES IN GARDEN

Can you tell us how to get rid of moles in our garden? For several years they have proved a pest, and especially destructive to peas. We have used traps and poison both of which have proved ineffective. Any helpful information will be thankfully received.—Mrs. C. S. Hesperia, Mich.

We know of no easy and entirely satisfactory method for ridding a garden of moles. No poison nor gas is effective and practically there are but two things to do, namely: Use mole traps such as may be found at most hardware stores, or watch for

the moles and dig out whenever they are seen "heaving." Ordinarily they do this from daylight until eight or nine o'clock and again for a short time in the middle of the day and a third period of activity late in the afternoon. At these times they are close to the surface and it is an easy matter to tramp the ground hard behind the mole and dig it up with an ordinary spading fork. There are several kinds of mole traps but our experience does not show that any one is superior to the rest.

If a lawn or garden has a strong slope toward wet ground the moles most often come in from the lower wet side, often a foot and a half to three feet below the surface and if such a run-way can be located probably a good many moles could be killed by dropping an ounce or two of liquid carbon bi-sulphide into this burrow and covering quickly with earth. This is of no use, of course, in the shallow run-ways since these are merely feeding burrows and often are used but once. Write the Bureau of Biological Survey, U. S. Dept. of Agriculture, Washington, D. C. for a pamphlet on how to get rid of moles.—Walter B. Barrows, Professor of Zoology, M. A. C.

ANOTHER BROTHER GONE

Will you help me locate my brother? He has been gone since 1908. He said he was going to work in Saginaw, but we have never heard from him since. We heard that he was working on a farm in Sanilac county and wrote to him there but our letter returned. His name is William Boice. He is about 56 years old. I would be more than pleased for any information that would lead to a trace of him since 1908.—Albert Boice, Midland, Mich., R. 5.

WHO ARE THE HEIRS?

If my bachelor brother should die leaving no will, would the children of my deceased sister get any of his property?—X. Y. Z., Dowagiac, Mich.

Upon the death of a single man without father or mother living his property would descend to his brothers and sisters and the children of any deceased brother or sister, the children taking the share the parent would have taken if alive.—Legal Editor.

Not in the Winter

"Would you marry a girl who wore a roll in her stocking?" "That would depend on the size of the roll."



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Increasing your profits

THE price you get for your farm produce depends on the market at the time you sell.

But you can make extra money if you cut the cost of production. Time saved on the farm cuts the costs just as it does in business. Time saved means more things done per man, or less men to do the same amount of work. Either way swells the year's profits.

To save time you should know the time. Time is saved in minutes, and the minutes grow into hours. A handy, dependable Westclox will save its cost in extra work accomplished the first month.

So clock your farm. Westclox all around. In the barn, in the

dairy, the workshop and the house. You'll be surprised the time they'll save. The cost is low. America, a steady going, reliable timepiece and alarm, at \$1.50. Others up to \$4.75.

Pocket Ben is a husky watch that's built for heavy duty, for work in the field or wood lot. The same time in your overall pocket that's in the kitchen. It brings your appetite to the house at just the right time. Pocket Ben, \$1.50.

See the full line where Westclox are sold. Each has the trade mark Westclox on the dial and on the six-sided, orange-bordered tag.

WESTERN CLOCK CO., LA SALLE, ILLINOIS, U. S. A.

Factory: Peru, Illinois. In Canada: Western Clock Co., Limited, Peterborough, Ont.

Big Ben	Baby Ben	America	Sleep-Meter	Jack o' Lantern	Pocket Ben	Glo-Ben
\$3.50	\$2.50	\$1.50	\$2.00	\$3.00	\$1.50	\$2.50



What the Neighbors Say

CONSOLIDATION

IT is with much interest that we as readers of your valuable paper are closely watching what is written on the above subject.

There are two as distinct sides on this school question as there is on the cloth of which a plaid lined coat is made with its fine appearance on the outside.

Our educators never give only the one side—they are not at all interested in what the hardworking farmer and his wife have to do to support these schools after they are in working order. It is not that class of people that are taxed. The taxes to pay our school, roads, etc., come mostly from the ones that either own, or are trying to own the farm on which they are living.

March 12 the Detroit Free Press gave an account of Wheatland township consolidated school district voting down an \$85,000 bond by 66 majority. This township carried two to one to consolidate, which goes to show that all had not given the subject proper study before voting on consolidating. If they had not voted the \$85,000 bond down they would have had to add not less than one third more to their bond before the plant would have been completed. To that add your interest for perhaps thirty years, and what have you farmers got to dig out of the ground?

There is just such a stunt going on in one of Eaton county townships. Our school commissioner calls it "Eaton County Pioneers Consolidated School." Also said "that Eaton county was watching to see the good results." It is only hoped that Eaton county may watch close enough to see the good results if there are any to be found.

Why, is it that business firms will take our boys and girls out of the farming country for their work in the place of out of the city? If the city has done so much for their youth, and raised them to so much higher standard, why don't they keep them? Every one knows that the city student cannot come on the farm and make a success. There seems to be two places where the rural youngsters can make good, in spite of all the handicap they have had by having unprepared teachers to tutor them (as the commissioners refer to them).

What parent is there that wants to put their little five-year-old tot in one of those busses with all sizes to be bumped around for miles? And if they are the ones that live on the bad road they can walk out to the good roads, stand there in the mud, snow, rain or whatever it chances to be until the bus comes—if a moment too late they can go home—and then the howl over at the school house. The above has been tried out somewhat in Eaton county this last winter, notwithstanding the winter has been extra good for the bus work.

Is it right to vote such an unmerciful tax on the coming generation? They say when it gets to going it costs no more to run it than the rural school. If so why have so many of them closed their doors?

It is high time the diggers of the soil arise and let their voices be heard. Let the hard manual worker be not afraid to speak.—Mrs. C. V. R., Potterville, Eaton county, Mich.

THE HUMAN SIDE OF THE LIQUOR QUESTION

(Editor's note: Some months ago an article was published in the Detroit News from the pen of the M. B. F. editor setting forth his observations of the effects of light wine and beer in Norway. The article brought to the editor a number of letters of both commendatory and condemnatory natures. But the one which impressed him the most was the following from a man who was once a slave to drink and dreads the return of legalized alcohol lest he may again become addicted to its use. He is not a well educated man, but his letter is worth reading.)

NOTE WHAT you state in the News. Good for you. I am no preacher or the like, and have boozed in the past due to the circumstances in which I was brought up. I had to go to work at an early

age. My brother died from the effects of booze.

When in trouble it is not the booze seller who comes to the rescue. We read and see how booze puts good men in prison and the mad house, and breeds ignorance and poverty.

It is years since I drank, but if the open saloon should come back I might, as I have money and know how to make money. But I have no right to drink. Someone younger than I may see and follow my example.

Things are better now without the saloon. I note a bank stands on a corner on Michigan avenue where a saloon used to stand, and drunken men all about, among them myself. I admire men who take the stand for law and right and against the saloon.

I had many good chances, but booze kept me down. Worked like a slave to be of some account in Detroit, but drink got me every time. For the last ten years or more I have managed to save a home and comforts of life, simply left booze alone. Now when I step into my banking place they handle me with kid gloves. They know my word is law. Today I am able to help my friends and myself, and am a credit to my country.

Yes, they told my brother that a little drink was good for one. But the first time we got too much they were the first to condemn us. I have seen and experienced. My brother and I went through hell and he is buried in a drunkard's grave among see the dries win entirely out. I strangers.

May the Lord spare me longer to thank you, and hope luck comes your way. Keep up the work. Am trying to do my share.—J. K., Ann Arbor, Mich.

AUTO LICENSES

AUTO owners, attention! It is a well-known fact that we fellows in the northern part of this state close the doors on our autos for four and five months every winter. Our friends in the south use them every day in the year. There is no difference in the price of license tags. I claim it is an injustice on us fellows in the north. We should get our tags for at least one-third less than our southern friends. I make a motion that proper steps shall be taken to have this adjusted. Who supports this motion?—A. Trojanek, Charlevoix County, Mich.

Sen. Baker introduced a bill along the lines you suggest in the last legislature, but it met with so much opposition from the good roads enthusiasts that it was defeated. The principal objection to a legislative enactment of this kind is the difficulty of fixing the boundaries of the counties in which such a reduction should take effect.—Editor.

ONE OF THE MISTAKES OF

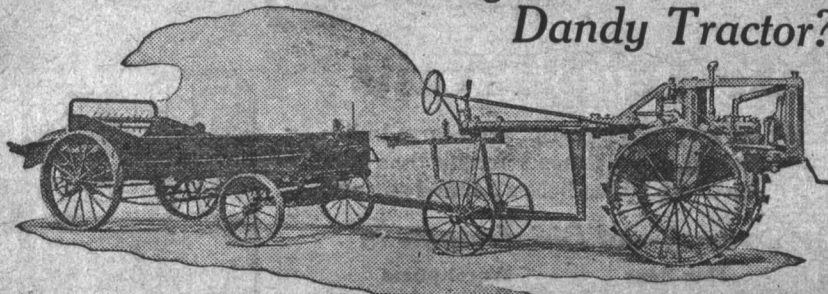
WE hear lamentations on every hand over the depression in the butter market. There are various reasons for this condition, one of them is our foreign policy which is curtailing our export trade not only in butter but all of our farm products. We have one remedy that is within our reach.

Let us stop using Oleo and substitutes for butter and it would only be a short time before our butter surplus would vanish. Where is there a manufacturer or producer of any commodity outside of the farmer, who does not use his own product? It is the farmers of this country who are using butter substitutes which amounts to more than all that is imported.

Now, brother farmer, let us co-operate more and study our marketing problems which are as important as production.—B. F. Shortwell, Kent County, Mich.

We have never seen any records on the amount of oleo consumed by farmers annually. It must be an enormous amount. If, as you suggest, farmers would use their own product, butter, instead of oleo, the surplus milk of the country would soon find a market and the manufacturer of oleo would receive a terrific blow. If farmers are so fond of oleo that they can't get along without it, let them own the oleo factories as the farmers of Denmark do. Then they can adjust both oleo and butter production to meet the changing demand.—Editor.

Who Will Be the Lucky Winner of this Dandy Tractor?



ON June 1st we will send the following telegram to a great tractor firm in Milwaukee, and two weeks later some Business Farmer reader will be proudly driving home from his railroad station a shiny new tractor:

WESTERN UNION TELEGRAM
Mount Clemens, Mich.

1-12-12-9-19—3-8-1-12-13-5-18-19 Co.

June 1st, 1922

Milwaukee, Wis.

Ship by prepaid freight one 1-12-12-9-19—3-8-1-12-13-5-18-19 4-cylinder tractor to Mr. of and bill us for the same.

MICHIGAN BUSINESS FARMER

Here is the Chance of a Life-time to Get an "All-Around" Tractor of National Reputation Without one Penny of Cost to You!

SOLVE THIS PUZZLE AND WIN IT!

1 12 12 9 19 — 3 8 1 12 13 5 18 19

The name of the manufacturer of this tractor is hidden in the numbers above, for instance the first letter (1) is A, the second letter (12) is L. You must count the alphabet and figure out each missing letter. Write this in the coupon below and we will start you off with 1,000 Votes in the contest for readers of the Michigan Business Farmer.

All you have to do to get started towards winning this tractor, is to figure out the name or make from the above puzzle, write it in the coupon below and get it right into the mails, just as soon as you can. On receipt of this coupon we will enter your name as a Contestant, CREDIT YOU WITH ONE THOUSAND (1000) VOTES and send you full particulars, more than we have room to tell you in this announcement.

The big thing is to get started right away! Everyone in your family can help but the votes must be sent in by only one person from each family.

THIS COUPON COUNTS 1,000 VOTES!

TRACTOR CONTEST MANAGER,

The Michigan Business Farmer, Mt. Clemens, Mich.

I have solved the name of the Tractor you are going to give away and I desire to enter the contest, providing it does not cost me one penny to win it Free!

It is an 4-Cylinder Tractor. You are to write me at once, whether or not the above is the correct name of the Tractor and if I have won the 1,000 votes.

Name R. F. D. No.

P. O. State.

RADIO DEPARTMENT

EDITED BY J. HERBERT FERRIS

TUNING THE INCOMING WAVES

(This is the third of a series of articles by Mr. Ferris on Radio construction and installation. The fourth will appear in an early issue.)

NOW that we have the aerial and ground connections made, the lead-in wires ready and a place fixed to which we will attach our tuning set and detector, we are ready to make a tuning set. The one described will be a single slide tuner.

To those of you who prefer we would recommend that you buy a small tuning coil complete. Others may buy the cardboard tube already wound with wire and mount this on wooden end pieces and fasten a slider rod to the end pieces. To those of you who wish to wind your own coil we would caution you to thoroughly shellac your cardboard tube or soak it in hot paraffine before winding it.

A cardboard tube about 3 inches in diameter and 8 inches long is bought (a cardboard mailing tube will do) and waxed or shellaced, buy also 1-4 lb. of number 22 enameled magnet wire, 2 binding posts, a 1-4 inch by 8 inch brass (square) sliding rod and a sliding contact to fit the rod. A few small screws and glue will be needed.

Beginning 3-4 inch from one end of the cardboard tube wind it with wire up to 3-4 inch of the other end, the wire should be separated the same distance from each turn equal to the thickness of the wire. This is best done by winding a piece of string at the same time as you wind the wire and when you have the single layer of wire on the tube and the ends fastened, you can then unwind the string and each turn of the wire will be separated from its neighboring turn. Wind the wire tight so that it will not slip. A coil may be made with the enameled wire and each turn may be against the next turn but the final results will not be as good. Having wound the coil mount it between 2 pieces of wood and then mount the complete coil on a flat piece of wood about 6 inches wide and a foot long. This base, should with, the end pieces, be shellaced and finished off so that it looks well. Now place your sliding contact on the square brass rod and mount them on top of the supporting end blocks so that the sliding contact will rest on the coil of wire with a light even pressure and at the same time move easily from one end of the coil to the other end. With the screw that holds one end of the rod fasten one of the loose ends of the wire and then to a binding post set in the end of one of the end blocks, the other loose end of the wire should be attached to another binding post mounted near the first post, but not touching it or the rod. See the figure of a coil and you will have an idea how your complete coil should look.

Before using your tuning coil take a small piece of sand paper and along the top of the coil where the slider rubs on the wire scrape off the enamel covering of the wire so that the bare copper wire shows and

so that the sliding contact will rub along this cleaned strip.

Now that the coil is complete you can buy a small as well as cheap crystal detector. This consists of a little cup of metal holding a piece of "galena" or "slicon" (which acts as a rectifier of the induced electric impulses received over your aerial) a cat's whisker contact, which is a fine bronze wire which lightly touches the crystal, the cat's whisker is connected to a binding post and the cup with the crystal to another binding post on the base of the detector. These detectors can be bought complete for a little more or less than 75c each.

You will need next a pair (called a head-set) of 200 ohm telephone receivers which will cost from \$5.00 up to \$15.00 the cheaper ones will do almost as well as the more expensive ones. Also buy a small telephone blocking condenser. The telephones will be your greatest expense for this simple receiving set.

Connect, with insulated wire, all the above parts as shown in the figure, and you will be ready to receive your first radio concert.

REMEMBER THAT THIS SET WILL ONLY RECEIVE RADIO-PHONE CONCERTS AND BROADCASTS AT A DISTANCE OF ABOUT 30 to 40 miles from a broadcasting station.

To tune your set see that the cat's whisker contact touches the crystal lightly then put on your telephones, and listen-in, at the same time slide the movable sliding contact along the coil one turn at a time and if you do not hear anything place the cat's whisker on a different place on the crystal and try again. When you hear the radiophone or any wireless telegraph signal, gently move the cat's whisker till you find a place on the crystal that brings in the signals the loudest, and then move your sliding contact on the coil a turn at a time one way then the other till the music or signals come in the loudest. This takes some practice and patience, and just because you do not hear anything do not get discouraged, try and try again.

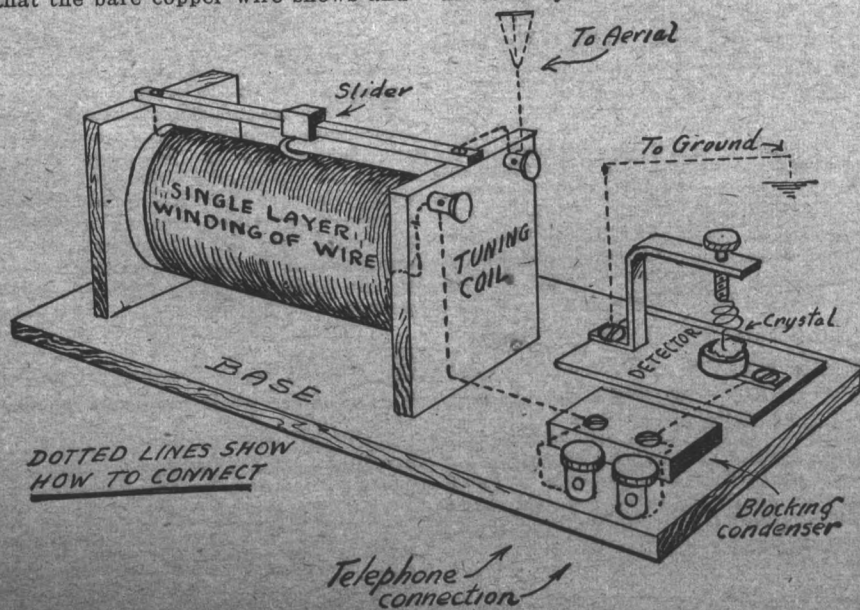
A good time to make your test is between 7:30 and 9:30 p. m. when the Detroit News is broadcasting, as well as Grand Rapids and other stations.

In making adjustments be sure that all contacts are tight, that wherever a wire is attached to another part of the set or binding post that the insulation has been taken off that piece of wire at the point of contact, otherwise you will not hear anything. Wherever any wires cross see that they do not touch and try to keep them at least 1-2 in. apart.

Do not drop your telephone receivers; you can jar the magnetism out of them and so spoil them that they will not do good work.

Be neat and careful in mounting your set and every time you are through see that the lightning switch is connected to ground.

We will describe next a vacuum tube detector which will bring in stations that are from 100 to 300 miles away.



The J. L. Hudson Co., Detroit, offers to the farmers of Michigan a dependable and reliable Radio Service—every instrument we sell measures up to Hudson quality standard in every respect — the Radio equipment which should be in every Farm Home. Every day Radio is broadcasted from Detroit, Chicago and Lansing, with market quotations, weather forecasts, latest news and evening programs of orchestras, singers, speakers and entertainers — ALSO THE SCORE OF THE BASEBALL GAMES AS THEY ARE PLAYED.

HUDSON'S COMPLETE RADIO SERVICE

Free consultation and estimates on installation of exterior and interior aerials for long distance and local receiving. Your inquiries will be answered by these two men:

Captain C. O. Van Der Vort, a graduate electrical engineer, formerly radio officer in the 85th Division of the A. E. F. Mr. Charles Marvin, experienced amateur radio operator, well known locally to older radio fans.

Radio Receiving Sets

"Marvel," complete receiving set, including single receiver head-set and aerial, \$15. "Everyman," De Forest portable set with double head phones, \$25. "Federal Jr.," a good crystal detector set that requires only two adjustments. Black enameled case. With Federal double head phones, \$25. The above outfits will cover an area of 30 miles.

Aeriola Sr.—Westinghouse set with detector, amplifier tube, aerial and battery, complete—\$67.40. The above set will cover a distance of more than 700 miles.

Head Sets, Detector and Amplifier, Tubes, Batteries, Aerial Wire, Insulators, Detectors, Loud Speakers and other supplies.

THE J. L. HUDSON CO. : DETROIT

Important—Write Hudson's for advice on the kind of equipment you need in your particular locality—you require expert advice on this—Address Personal Service Department.

THE AUTO-OILED AERMOTOR A Real Self-Oiling Windmill

Oil an Aermotor once a year and it is always oiled. Every moving part is completely and fully oiled. A constant stream of oil flows on every bearing. The shafts run in oil. The double gears run in oil in a tightly enclosed gear case. Friction and wear are practically eliminated.

Any windmill which does not have the gears running in oil is only half oiled. A modern windmill, like a modern automobile, must have its gears enclosed and run in oil. Dry gears, exposed to dust, wear rapidly. Dry bearings and dry gears cause friction and loss of power. The Aermotor pumps in the lightest breeze because it is correctly designed and well oiled. To get everlasting windmill satisfaction, buy the Aermotor.

Write today for Circular. AERMOTOR CO. Chicago Des Moines Kansas City Minneapolis Oakland



Standard Tires

STANDARD GUARANTEE				Fabric			
Standard Four Cords, 10,000 miles				Heavy Tubes			
Buy direct from us, note well the saving. Prices absolutely the very lowest. You cannot buy this first grade of tires less anywhere. These Standard tires are all first, new fresh stock. We do not handle seconds.				Heavy Tubes			
Sizes	Heavy Non-Skids	Oversize Cords	Heavy Tubes	Sizes	Heavy Non-Skids	Oversize Cords	Heavy Tubes
28x3	\$ 7.75		\$1.33	34x4	\$13.95	\$22.45	\$1.90
30x3	7.75		1.30	32x4 1/2	17.95	25.95	2.10
30x3 1/2	7.45	\$ 11.95	1.35	33x4 1/2	18.45	26.45	2.15
32x3 1/2	9.75	15.95	1.40	34x4 1/2	18.95	26.95	2.20
31x4	10.95		1.75	35x4 1/2	19.45	27.95	2.25
32x4	13.45	20.95	1.80	36x4 1/2	19.95	28.95	2.30
33x4	13.75	21.95	1.85	35x5	22.45	33.95	2.75

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Aerial wire, magnet wire, insulators, receiving sets.

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ALSO \$1.00 PER 1000 OFF ON ALL STRAWBERRY PLANTS LISTED IN OUR FREE CATALOGUE

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Everything to plant—Do it today.

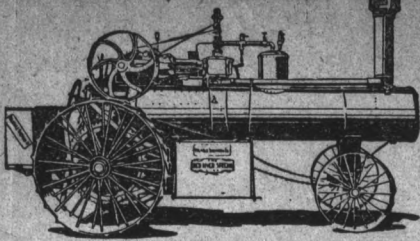


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Cuts prices to the core on engines, separators, spreaders, fence, paint, roofing, harness, seeds, farm machinery and household necessities. Get Galloway's low prices giving direct from factory reductions before buying. Save one-fourth to one-half. Half a million pleased customers testify to Galloway's perfection in dealing. Satisfaction guaranteed. Cash or time, 30 days trial. Send for big free catalog with its thousand of bargains today.

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Nichols-Shepard STEAM ENGINE

is so simple that anybody can get the best results with it.

No expert needed.

It is so simple and easily handled that the engineer can do his own experting.

Strong, Durable and Simple, with ample power to drive a thresher economically and profitably.

An easy steamer with great boiler strength and capacity.

It keeps a thresher going steadily from beginning to end of the threshing season.

Built in both single and double cylinder types.

A Wonderful Money-maker for the Thresherman

Henry Raemisch, Dane, Wis., says: "I want you to know that I have been very successful since I started running Nichols-Shepard Red River Special machinery."

I have just looked over my books and am tickled to know that I have made more than \$16,000.00 with my 20 Horse Single Engine since I got it four years ago.

I keep it running nearly the year around, and am proud of it. It surely is a money maker. Does not keep a man busted buying repairs for it."

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(In Continuous Business Since 1848)

Builders exclusively of Red River Special Threshers, Wind Stackers, Feeders, Steam and Oil-Gas Traction Engines.

Battle Creek, Michigan

SURE QUICK DEATH FOR RATS AND MICE

Remarkable Triple Strength Virus
Kills Every One—Not a Poison

You can now easily and quickly kill all rats, mice and gophers with Triple Strength Virus—the most powerful concentrated virus known—the sure, safe way to destroy rodents. Positively not a poison. Harmless to humans, pets, poultry, stock, etc.—affects only rodents.



Rats Die Outside

Rats die because they become infected with a plague that affects the heart, blood vessels and lungs, destroying the blood corpuscles and causing suffocation. Rats rush outside to get fresh air and water. When the diseased rats get outside, they never get back for the disease is then so far gone it kills them. No odor, no dead rats to handle, no live rats to kill.

Special Introductory Offer

To introduce this powerful Triple Strength Rat Virus, we will make every reader of this paper—for short time only—a special offer of a regular \$2.50 bottle for only \$1.00 postpaid. This \$2.50 bottle Triple Strength Rat Virus is enough to clear a big poultry house, home, barn or yard of rats and mice. Send order today, sure. Give it according to directions—if after 30 days' trial you find any rats or mice—we will refund your money without question.

If not convenient to send money today—just send your name and address, a postal will do—pay postman on arrival. Remember, it costs you nothing if it does not do all we claim.

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USE "Can't Sag"

Steel Posts

Save Money
No holes to dig; no setting; no tamping; drive 800 a day. Made from High Carbon rust resisting Rail Steel. Prices new down to pre-war basis.

Our Balanced Corrugated Anchor Plate makes every post drive straight—braces post in four directions instead of two—prevents leaning. Four Earth Locks cling to soil with bull dog grip. Send for FREE Post Folder describing six exclusive Can't Sag features.

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MEN WANTED—IN EVERY TOWN AND farming community in Lower Michigan. Big Money, easy work. Whole or part time. No soliciting. O. TURNER, Powers, Mich.

Nomads of the North

A STORY OF THE GREAT OUTDOORS

By **JAMES OLIVER CURWOOD**
Michigan's Own and America's Foremost Author of Wild Life Romance

(Continued from last issue)

THEY were not alone. A caribou sped past them with the swiftness of the wind itself. "Fast, fast, fast!"—Neewa's instinct cried, "but endure! For the caribou, speeding even faster than the fire, will fall of exhaustion shortly and be eaten up by the flames. Fast—but endure!"

And steadily, stoically, at his loping gait Neewa led on.

A bull moose swung half across their trail from the west, wind-gone and panting as though his throat were cut. He was badly burned, and running blindly into the eastern wall of fire.

Behind and on either side, where the flames were rushing on with the pitiless ferocity of hunnish regiments, the harvest of death was a vast and shuddering reality. In hollow logs, under windfalls, in the thick tree-tops, and in the earth itself, the smaller things of the wilderness sought their refuge—and died. Rabbits became leaping balls of flame, then lay shrivelled and black, the marten were baked in their trees, fishers and mink and ermine crawled into the deepest corners of the windfalls and died there by inches, owls fluttered out of their tree-tops, staggered for a few moments in the fiery air, and fell down into the heart of the flame. No creature made a sound—except the porcupines, and as they died they cried like little children.

In the green spruce and cedar timber, heavy with the pitch that made their thick tops spurt into flame like a sea of explosive, the fire rushed on with a tremendous roar. From it—in a straight race—there was no escape for man or beast. Out of that world of conflagration there might have risen one great, yearning cry to heaven: Water—Water—WATER! Wherever there was water there was also hope—and life. Breed and blood and wilderness feuds were forgotten in the great hour of peril. Every lake became a haven of refuge.

To such a lake came Neewa, guided by an unerring instinct and sense of smell sharpened by the rumble and roar of the storm of fire behind him. Miki had "lost" himself, his senses were dulled, his nostrils caught no scent but that of a world in flames—so, blindly, he followed his comrade. The fire was enveloping the lake along its western shore, and its water was already thickly tenanted. It was not a large lake, and almost round. Its diameter was not more than two hundred yards. Farther out—a few of them swimming, but most of them standing on bottom with only their heads out of water—were a score of caribou and moose. Many other shorter-legged creatures were swimming aimlessly, turning this way and that, paddling their feet only enough to keep afloat. On the shore where Neewa and Miki paused was a huge porcupine, chattering and chuckling foolishly, as if scolding all things in general for having disturbed him at dinner. Then he took to the water. A little farther up the shore a fisher-cat and a fox hugged close to the water line, hesitating to wet their precious fur until death itself snapped at their heels, and as if to bring fresh news of this death a second fox dragged himself wearily out on the shore, as limp as a wet rag after his swim from the opposite shore, where the fire was already leaping in a wall of flame. And as this fox swam in, hoping to find safety, an old bear twice as big as Neewa, crashed panting from the undergrowth, plunged into the water, and swam out. Smaller things were creeping and crawling and slinking along the shore, little red-eyed ermine, marten and mink, rabbits, squirrels and squeaking gophers, and a horde of mice. And at last,

with these things which he would have devoured so greedily running about him, Neewa waded slowly out into the water.

Miki followed until he was submerged to his shoulders. Then he stopped. The fire was close now, advancing like a race-horse. Over the protecting barrier of thick timber drove the clouds of smoke and ash. Swiftly the lake became obliterated, and now out of that awful chaos of blackness and smoke and heat there rose strange and thrilling cries, the bleating of a moose calf that was doomed to die and the belching, terror-filled response of its mother, the agonized howling of a wolf, the terrified barking of a fox, and over all else the horrible screaming of a pair of loons whose home had been transformed into a sea of flame.

Through the thickening smoke and increasing heat Neewa gave his call to Miki as he began to swim, and with an answering whine Miki plunged after him, swimming so close to his big black brother that his muzzle touched the other's flank. In mid-lake Neewa did as the other swimming creatures were doing—paddled only enough to keep himself afloat, but for Miki, big of bone and unassisted by a life-preserver of fat, the struggle was not so easy. He was forced to swim to keep afloat. A dozen times he circled around Neewa, and then, with something of the situation driven upon him, he came up close to the bear and rested his forepaws on his shoulders.

The lake was now encircled by a solid wall of fire. Blasts of flame shot up the pitch-laden trees and leapt for fifty feet into the blistering air. The roar of the conflagration was deafening. It drowned all sound that brute agony and death may have made. And its heat was terrific. For a few terrible minutes the air which Miki drew into his lungs was like fire itself. Neewa plunged his head under water every few seconds, but it was not Miki's instinct to do this. Like the wolf and the fox and the fisher-cat and the lynx it was his nature to die before completely submerging himself.

Swift as it had come the fire passed, and the walls of timber that had been green a few moments before were black and shrivelled and dead, and sound swept on with the flame until it became once more only a low and rumbling murmur.

To the black and smouldering shores the live things slowly made their way. Of all the creatures that had taken refuge in the lake many had died. Chief of those were the porcupines. All had drowned.

Close to the shore the heat was still intense, and for hours the earth was hot with smouldering fire. All the rest of that day and the night that followed no living thing moved out of the shallow water. And yet no living thing thought to prey upon its neighbor. The great peril had made of all beasts kin.

A little before dawn of the day following the fire relief came. A deluge of rain fell, and when day broke and the sun shone through a murky heaven there was left no sign of what the lake had been, except for the dead bodies that floated on its surface or lined its shores. The living things had returned into their desolated wilderness—and among them Neewa and Miki.

CHAPTER TWENTY-SIX

FOR many days after the Great Fire it was Neewa who took the lead. All their world was a black and lifeless desolation and Miki would not have known which way to turn. Had it been a local fire of small extent he would have "wandered" out of its charred path. But the conflagration had been immense. It had swept over a vast reach of country, and for a half of the creatures who had saved them-

selves in the lakes and streams there was only a death by starvation left.

But not for Neewa and his breed. Just as there had been no indecision in the manner and direction of his flight before the fire so there was now no hesitation in the direction he chose to seek a live world again. It was due north and west—as straight as a die. If they came to a lake, and went around it, Neewa would always follow the shore until he came directly opposite his trail on the other side of the lake—and then strike north and west again. He travelled steadily, not only by day but also by night, with only short intervals of rest, and the dawn of the second morning found Miki more exhausted than the bear.

There were many evidences now that they had reached a point where the fire had begun to burn itself out. Patches of green timber were left standing, there were swamps unscathed by the flames, and here and there they came upon green patches of meadow. In the swamps and timber they feasted, for these oases in what had been a sea of flame were filled with food ready to be preyed upon and devoured. For the first time Neewa refused to stop because there was plenty to eat. The sixth day they were a hundred miles from the lake in which they had sought refuge from the fire.

It was a wonderful country of green timber, of wide plains and of many lakes and streams—cut up by a thousand usayow (low ridges), which made the best of hunting. Because it was a country of many waters, with live streams running between the ridges and from lake to lake, it had not suffered from the drought like the country farther south. For a month Neewa and Miki hunted in their new paradise, and became fat and happy again.

It was in September that they came upon a strange thing in the edge of a swamp. At first Miki thought that it was a cabin, but it was a great deal smaller than any cabin he had known. It was not much larger than the cage of saplings in which Le Beau had kept him. But it was made of heavy logs, and the logs were notched so that nothing could knock them down. And these logs, instead of lying closely one on the other, had open spaces six or eight inches wide between them. And there was a wide-open door. From this strange contraption there came a strong odor of over-ripened fish. The smell repelled Miki. But it was a powerful attraction to Neewa, who persisted in remaining near it in spite of all Miki could do to drag him away. Finally, disgusted at his comrade's bad taste, Miki sulked off alone to hunt. It was some time after that before Neewa dared to thrust his head and shoulders through the opening. The smell of the fish made his little eyes gleam. Cautiously he stepped inside the queer looking thing of logs. Nothing happened. He saw the fish, all he could eat, just on the other side of a sapling against which he must lean to reach them. He went deliberately to the sapling, leaned over, and then!—

"Crash!"

He whirled about as if shot. There was no longer an opening where he had entered. The sapling "trigger" had released an over-head door, and Neewa was a prisoner. He was not excited, but accepted the situation quite coolly, probably having no doubt in his mind that somewhere there was an aperture between the logs large enough for him to squeeze through. After a few inquisitive sniffs he proceeded to devour the fish. He was absorbed in his odoriferous feast when out of a clump of dwarf balsams a few yards away appeared an Indian. He quickly took in the situation, turned, and disappeared.

Half an hour later this Indian ran into a clearing in which were the recently constructed buildings of a new Post. He made for the Company store. In the fur-carpeted "office" of this store a man was bending fondly over a woman. The Indian saw them as he entered, and chuckled. "Sakehewawin" ("the love couple"), that was what they had already come to call them at Post Lac Bain—this man and woman who had given them a great feast when the missionary had married

them not so very long ago. The man and the woman stood up when the Indian entered, and the woman smiled at him. She was beautiful. Her eyes were glowing, and there was the flush of a flower in her cheeks. The Indian felt the worship of her warm in his heart.

"Oo-ee, we have caught the bear," he said. "But it is napao (a he-bear). There is no cub, Iskwaio Nanette!"

The white man chuckled.

"Aren't we having the darndest luck getting you a cub for a house-pet, Nanette?" he asked. "I'd have sworn this mother and her cub would have been easily caught. A he-bear! We'll have to let him loose, Mootag. His pelt is good for nothing. Do you want to go with us and see the fun, Nanette?"

She nodded, her little laugh filled with the joy of love and life.

"Oui. It will be such fun—to see him go!"

Challoner led the way, with an axé in his hand, and with him came Nanette, her hand in his. Mootag followed with his rifle, prepared for an emergency. From the thick screen of balsams Challoner peered forth, then made a hole through which Nanette might look at the cage and its prisoner. For a moment or two she held her breath as she watched Neewa pacing back and forth, very much excited now. Then she gave a little cry, and Challoner felt her fingers pinch his own sharply. Before he knew what she was about to do she had thrust herself through the screen of balsams.

Close to the log prison, faithful to his comrade in the hour of peril, lay Miki. He was exhausted from digging at the earth under the lower log, and he had not smelled or heard anything of the presence of others until he saw Nanette standing not twenty paces away. His heart leapt up into his panting throat. He swallowed, as thought to get rid of a great lump, he stared. And then, with a sudden, yearning whine, he sprang toward her. With a yell Challoner leapt out of the balsams with uplifted axe. But before the axe could fall, Miki was in Nanette's arms, and Challoner dropped his weapon with a gasp of amazement—and one word:

"MIKI!"

Mootag looking on in stupid astonishment, saw both the man and the woman making a great fuss over a strange and wild-looking beast that looked as if it ought to be killed. They had forgotten the bear. And Miki, wildly joyous at finding his beloved master and mistress, had forgotten him also. It was a prodigious whoof from Neewa himself that brought their attention to him. Lik a flash Miki was back at the pen smelling of Neewa's snout between two of the logs, and with a great wagging of tail trying to make him understand what had happened.

Slowly, with a thought born in his head that made him oblivious of all else but the big black brute in the pen, Challoner approached the trap. Was it possible that Miki could have made friends with any other bear than the cub of long ago? He drew in a deep breath as he looked at them. Neewa's brown-tipped nose was thrust between two of the logs and Miki was licking it with his tongue! He held out a hand to Nanette, and when she came to him he pointed for a space, without speaking.

Then he said:

"It is the cub, Nanette. You know—the cub I have told you about. They've stuck together all this time—ever since I killed the cub's mother a year and a half ago, and tied them together on a piece of rope. I understand now why Miki ran away from us when we were at the cabin. He went back—to the bear."

Today if you strike northward from Le Pas and put your canoe in the Rat River or Grassberry waterways, and thence paddle and run with the current down the Reindeer River and along the east shore of Reindeer Lake you will ultimately come to the Cochrane—and Post Lac Bain. It is one of the most wonderful countries in all the northland. Three hundred Indians, breeds and French, come with their furs to Lac Bain. Not a soul among them—

man, woman, or child—but knows the story of the "tame bear of Lac Bain"—the pet of l'ange, the white angel, the Factor's wife.

The bear wears a shining collar and roams at will in the company of a great dog, but, having grown huge and fat now, never wanders far from the Post. And it is an unwritten law in all that country that the animal must not be harmed, and that no bear traps shall be set within five miles of the Company buildings. Beyond that limit the bear never roams, and when it comes cold, and he goes into his long sleep, he crawls into a deep warm cavern that has been dug for him under the Company storehouse. And with him, when the nights come, sleeps Miki the dog.

THE END

ODDS AND ENDS

Michigan peach growers will find a recent government bulletin, on the "Preparation of Peaches for Market," of great interest. The bulletin is prepared by Mr. H. M. Samson, specialist in standardization of the U. S. Department of Agriculture. In a plain unvarnished way it discusses harvesting, hauling, packages, packing, packing houses, etc. The bulletin also contains many interesting illustrations. It may be had free of charge by writing the Division of Publications, U. S. Dept. of Agriculture, Washington, D. C. Ask for Farmers' Bulletin No. 1266.

Some idea of the enormous increase in the use of modern machinery on American farms is gained from a U. S. Department of Agriculture Circular No. 212,

which declares that farm machines to the value of \$536,945,000 were made in U. S. in 1920, and all but \$66,626,000 sold to U. S. farmers. Totals of the different kinds of implements and machinery are as follows: 1,361,578 plows and lists, 580,000 cultivating machines, 472,000 planting machines, 411,000 haying machines, and more than 200,000 gas tractors.

The lowest tuberculosis death rate ever reached in Michigan, according to the State Department of Health, was recorded for the first three months of 1922 when 670 persons died from the disease. The number of deaths for the corresponding period of 1921 were 763. Michigan is now one of the lowest ranking states in the number of deaths from tuberculosis.

A meeting of all State Holstein-Friesian Associations has been called for Monday, June 5th, the opening day of the Heart of America Dairy Show, which will be at Kansas City June 5th-12th, in connection with the annual meeting and sale of The Holstein-Friesian Association of America.

Michigan has completed 241.7 miles of "federal aid" road as compared with Ohio's 502.4 miles and Wisconsin's 689.2 miles. The total federal aid mileage in the state is 697.1 miles.

Latest estimates place the 1922 winter wheat prospects at 550,000,000 bushels. At this time last year the indications were for a crop of 685,000,000, while the actual yield was 587,000,000 bushels. All things considered this country is likely to produce much less wheat this year than last.

The tendency of the bacon industry in Denmark is to steadily increase its production, according to a report received from the Specialist in Foreign Marketing of Live Stock and Meats at

London. The average weekly export of bacon from Denmark for the year 1921 was 1,630 tons. The average weekly exports for the first ten weeks of 1922 was 1,883 tons.

In March, 1922, the United States exported 229,061 pounds of honey, and imported 30,412 pounds.

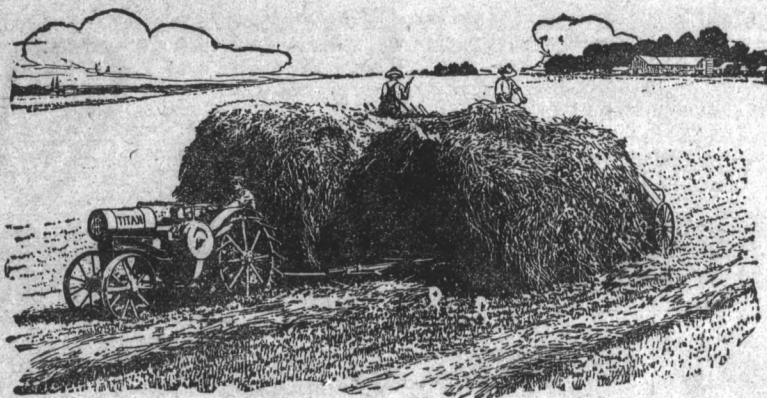
A certain type of Chinese-bulk shelled-egg shipments is at present puzzling the official chemist of the English Ministry of Health, according to a report from the Specialist in Foreign Marketing of Live-stock and Meats at London. Although these eggs are being shipped with the whites and yolks separated they do not grow stale. Chemists from the Ministry of Health and outside experts have not been able to discover the preserving ingredient.

Denmark produced 3,307,000 short tons of milk in 1920 as compared with 1,858,000 tons in 1918 and 3,858,000 in 1914. Butter to the amount of 198 million pounds was produced in 1920 and 164 million pounds were exported.

Sparks from fingernails created by friction with clothing in a centrifugal wringer, ignited gas fumes arising from a cleaning and pressing machine and caused a \$5,500 fire in a cleaning establishment in Lincoln, Nebraska.

Siamese twin pigs were born on an Iowa farm last week according to the daily press. It is said the freak was given birth by a Duroc Jersey sow along with a fine litter of normal pigs.

Farmers' Bulletin, No. 1260, just issued by the Department of Agriculture, describes how to destroy insects which infect and damage stored grain. The bulletin may be had free of charge by writing the Division of Publications, U. S. Department of Agriculture, Washington, D. C.



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The Michigan BUSINESS FARMER

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A Sensible View

REP. PETER B. LENNON, of Genesee county who is touring the state in behalf of the proposed state income tax, takes a most sensible view of appropriations and taxes when he says:

"When I entered the Legislature in 1919, I went in with the intention of slashing every appropriation in sight. I did not believe so much money was needed to properly maintain our institutions. After my experience in two sessions of the Legislature and becoming conversant with conditions in all our state institutions, I say without hesitation that not one of them has received more than it needs, and some of them are getting along on funds greatly inadequate. I have been in quite a number of counties in Central and Southern Michigan in the last few months. I find that the taxes run from twenty to sixty dollars on a thousand dollars assessed valuation. The time has come when it is not only a question of keeping up our institutions but it is a question of saving the homes of the great rank and file of the people of this state."

The tax payer does not seem to understand that a large per cent of institutional expenditures authorized by recent legislatures are for improvements which should have been made years ago. Institutions which were adequate ten years ago have become so crowded that it is a great problem to take care of new arrivals. This is true of nearly every educational, penal and insane institution in the state. Instead of enlarging quarters to meet growing demands nearly every legislature has pursued the short-sighted course of "passing the buck" to the succeeding legislature. Like taking a dose of bitter medicine they have been putting it off from year to year until the time has come when public safety demands action. We have discovered these facts by personal observations, and while we urge the utmost economy in state expenditures we realize, with Peter Lennon, that many millions of dollars must be spent in the near future to enlarge the over-taxed facilities of our essential institutions.

But as Mr. Lennon also says these must be financed from a different source than taxes on real estate. The farms of Michigan can stand no greater load. A part of the burden must be shifted. The state income tax is the logical methods to gain the desired ends.

The Salvation Army

REMEMBER when the Salvation Army first came to your town? You left your shopping and joined the curious crowd of spectators who blocked the principal thoroughfare to learn the meaning of the booming bass drum and the shrill voice of a Salvation Army lassie. Preaching the gospel of Christ from the Main Street pulpit was a new thing to you. You couldn't quite get used to it. It looked cheap, out-of-place, almost blasphemous. But you enjoyed the novelty of it and when drunken,

good-for-nothing Bill Sykes, who had once prayed at his mother's knee but had never been inside a church, detached himself from the crowd and went forward singing with the rest, "Nearer, my God to Thee," it set you thinking. A miracle was performed before your eyes. A thing of the gutter gave himself to God and became a man.

Millions of Bill Sykes have knelt in the dust of the street beneath the banner of the Salvation Army. Some of them have turned back, it is true, but many have become sober, useful, God-fearing citizens. And the Salvation Army, once despised of men who thought themselves their betters, has proven its right to rank among the greatest religious and charitable organizations of the world. It has gone farther than any church. It has not only fed the souls of millions, but it has fed their bodies, clothed them and given them work to do. It preaches and practices a practical Christianity.

This week the annual drive is on to raise the Salvation Army's budget, nearly all of which is spent in the community where raised. It is a worthy cause and should receive the financial support of all who wish to advance the kingdom of God on earth.

The Poor Little Rich Boy

THE bill of Sen. LaFollette to levy a progressive inheritance tax upon fortunes with a maximum rate of 50 per cent on fortunes over \$30,000,000 has brought forth some inquiries into the holdings of the nation's richest men. It is declared by the Peoples' Reconstruction League that 120 billion dollars, or approximately one-third of the national wealth, is owned by 23,000 persons. Some of the largest fortunes are approximately as follows:

Million Dollars	Million Dollars
J. D. Rockefeller and 2,000	Goulds 100
Wm. Rockefeller to 5,000	Armours 100
Pratt family 400	Swift 100
Harkness 400	Widener 100
Carnegie 300	George Farr Baker .. 80
Weyerhaeuser estate .. 300	Stillmans 60
A. W. Mellon 300	Isaac Stevenson 70
Vanderbilts 300	Kennedy-Todd group .. 75
Astors 300	Sage estate 60
Payne Whitney family .. 200	Blair 50
Frick estate 130	Rhinelanders 50
Goelets 100	Rogers 50
J. J. Hill 100	Archbold estate 50
Hetty Green estate .. 100	Mills estate 50
Field estate 100	Daniel Reid estate .. 50
Harriman 100	Plant estate 50
Morgans 100	Searles estate 40
..... to 200	Morris 50
Flaigler estate 100	A. C. James family .. 50
Anthony Brady estate .. 100	Cleveland H. Dodge .. 60

The majority of these huge fortunes are the result of the exploitation of the natural resources or government subsidy in the nature of free grants of land, exemption from taxation, tariffs, etc. In his kind indulgence Uncle Sam has not only provided generously for father, mother, sister, brother, aunt, uncle, niece and nephew, but for their children and children's children "even unto the fourth and fifth generations." These fortunes handed down from one generation to another steadily increase until no man knoweth what proportions they may some day reach unless they are taxed and curtailed.

Wealth earned by the sweat of the brow is often a blessing to the possessor and mankind in general, but inherited wealth is nearly always a curse which blights the ambition and ruins the moral nature of the beneficiary. Since great wealth cannot be made except by special dispensations of the people, a large share of such wealth should be returned to the people when the possessor dies.

This the LaFollette bill would do. When the owner of \$100,000,000 worth of property dies 40 per cent of it or \$40,000,000 would go to the government and \$60,000,000 to the heirs. Think what such a tax would mean in revenue to the government and what a tremendous burden of taxation it would remove from the shoulders of those least able to bear it.

Cheaper Roads

CONGRESSMAN ROY WOODRUFF is getting all sorts of telegrams and letters now days from well-intentioned Michigan folks criticizing him for his bill to reduce the amount per mile which the federal government may pay on federal aid roads. Woodruff's bill would fix the maximum amount per mile

at \$10,000 which is less than half the present cost of building concrete roads. Under this bill Michigan could not obtain the full one-half federal share on roads costing more than \$20,000 a mile.

"Less concrete and more gravel" seems to be Mr. Woodruff's slogan. It is not a popular one by any means with tourist associations, manufacturers of cement, and others selfishly interested in the construction of concrete roads. But it has a powerful appeal to the farmers. Congressman Woodruff must be aware of the fact that gravel roads positively will not stand up under the traffic to which some of them are subjected. He probably realizes that the concrete road is a necessity in many sections despite the cost. But he has sympathy with the over-burdened tax-payer and he is taking this novel method of forcing cheaper construction of concrete highways.

No Subsidy for Agriculture

THE farmers use to "cuss" the county agent because he did not show more interest in their marketing problems, and now the middlemen are hopping onto his back because he shows too much. It's a hard life. Opposition to county agents by grain dealers and unfriendly farm organizations has reached such proportions that Congress is being flooded with petitions for the repeal of the Smith-Lever act, under which the county agent receives federal pay. The situation has become so alarming that Assistant Secretary of Agriculture Pugsley has issued a warning to county agents to refrain from doing aught that could convict them of the charge of using government funds for the interest of one class at the expense of another.

We cannot think of a single good reason why the federal government should grant any kind of a subsidy to farmers which is denied others. But the government is doing that very thing when it pays the county agent for actively promoting marketing organizations controlled by farmers.

The county agent is a valuable individual. The best test of the effectiveness of his work is the growing opposition among those who have suffered from the competition of his organizing efforts. But the county agent lives in continual fear of official rebuke and is constantly hampered by officious "you musn't do this" and "you musn't do that." He should be a free lance to work without fear or favor for the advancement of agriculture. He should be cut loose from the chains of government dictation. But this cannot be done so long as the government pays him. Let him be paid by the farmers and made solely responsible to the farmers, and he will become a doubly valuable person.

Better Times

THE Chemical National Bank of New York notes, and rightly, that the farmer has received but a comparatively small benefit from the advancing prices on farm products. The unthinking public is apt to be led astray by these price increases and assume that the farmer is receiving the major benefit. Times are much better just now than they were six months ago. Factories are starting up, men are going back to work; the farmers are buying again. But the truth of the matter is that the better business surge is not entirely or even primarily the result of an actual increase in the farmers' purchasing power but the psychological effect which higher prices have had upon his spending proclivities. The Chemical National Bank puts the situation in its proper light when it says: "The last six months have witnessed a material improvement in the prices of agricultural products. Although the full effects of the increase will not be felt by the farmer until he markets 1922 crops, it is already affecting favorably the agricultural situation. * * * The recovery has done much to relieve the apprehension of farmers that another long period of agricultural depression was imminent. And in strengthening the position of the farmer it has by so much brightened the economic outlook for the country at large."

Uncle Rube Spinach Says

WHERE'RE WE AT?

JEST received a letter an' a clippin' from Toledo Blade, from F. H. Carpenter, Otsego, Mich., with request that I publish clippin' an' in his (or her) letter the assertion is made that either the one that gave the interview from which the clippin' emanated or poor ol' me is dead wrong—jest completely gone wrong an' mebbe beyond reclaim.

Well now I can't give the entire contents of the aforesaid clippin' an' have any space left to say anything myself but I will give the essential parts of it an' answer 'em as best I can. Miss Jessie Binford—don't know who she is nor where she hails from, but seems from the story sent that she is a member of the United States Interdepartment Social Hygienic board, whatever that is, an' that she has been investigatin' matters an' things an' comes out an' sez "Baby vampires are havin' the wild-est fling in the country's hist'ry." "The youth of the delinquents is amazin'." "Every community I visit is greatly disturbed over the problem of its young people." "There is a freedom of relationship which is appalling"—she makes the statement that fifty seven per cent of delinquent girls had their first sex knowledge before they were 17 years old; ninety-two per cent went to work before the age of 19. When asked what is to be done, Miss Binford said: "The parents must again gain control of their children. Freedom of relationship between boys and girls must be curtailed. Supervision and chaperonage must return."

"It is high time to put the baby vamp in her place."

Well now that's the meat in the nut of the clippin'—it takes up a question that I have not touched at

all—our discussion has been along the line of woman's, girls' dress an' it's effect upon the morals of our young people.

But friend Carpenter sez that either Miss Binford or your Uncle Rube is wrong an' so rather than have him think that Miss Binford could possibly be wrong I jest goin' to answer his letter as best I can whether I'm right or wrong.

That there are delinquent girls an' immoral women goes without sayin'—everybody knows they are with us—that they have always been with us. With my bible open before me an' readin' from its pages, I find that even in ol' testament times we had—well we'd call 'em vamps now, an' all down through the pages of that great book we read of the immorality of women an' occasionally of men—when the Savior walked among the people of the earth this sin was with us—the woman who was brought before Him to be stoned was a delinquent girl—member what He said? Neither do I condemn thee, go thy way and sin no more! Count back a hundred years ago, a thousand years—back since the world was young an' you'll find we had the same condition we have today.

Remember this—there can be no immoral women unless there are immoral men—no woman can be immoral by herself. An' yet the shame an' the disgrace always falls on the woman. In the discussions heretofore I have referred to the present style of dress an' it's relation to the morals of our youth.

I said then, an' I say now, dress has absolutely nothin' to do with the matter—if a girl or woman wants to go wrong, dress long or short, will not save her—if she wants to be sweet an' good, dress long or short, will not keep her from it.

Common decency an' common sense keeps our girls good—they are good. The majority of our girls are jest as sweet an' fine as the girls of any age has ever been. I member well when I wuz young the older folks were wonderin' what would become of the young folks of our day. Well I've seen 'em grow into womanhood—wifehood an' motherhood—jest as fine an' good an' splendid as ever the world produced, an' I believe in our girls now jest as much as I ever did in all my life.

It may seem that there is more delinquency now then in the years gone by—you know we never used to have social service workers to check up on every girl that made a misstep. We didn't read sex matters in the papers as we read 'em now, 'cause it was not proper to print such stuff in the back ages. But—my dear friend we had conditions then jest as we have 'em now—there were delinquent girls and immoral women! There wuz everything we have today—dress has never cut any figure in morals—as long as there are two sexes an' until the double standard of morals is abolished—the standard that damns a woman an' lets the man go free—jest so long will we have delinquency in girls an' we'll have it in boys but we'll pass it by in the boys—"They must sow their wild oats" don't chew know. "They'll be all right when they get a little age onto 'em—oh—If mothers would spend half the time teachin' their boys to be men! To respect womanhood! That they spend teachin' their girls to take care of themselves—my friend Carpenter an' all other friends—don't you think this would be quite a diff'rent world?"

Miss Binford may be an' prob'ly is right but as yet I have no proof that your Uncle Rube is so awful wrong. What say?

We shake our heads and sigh and say:

"How forward children are today?" Yet we remember years ago Our grandfolks criticized us so And used to wonder, as we do, Just what the age was coming to. It seems upon life's fleeting stage, Youth is the mystery of age.

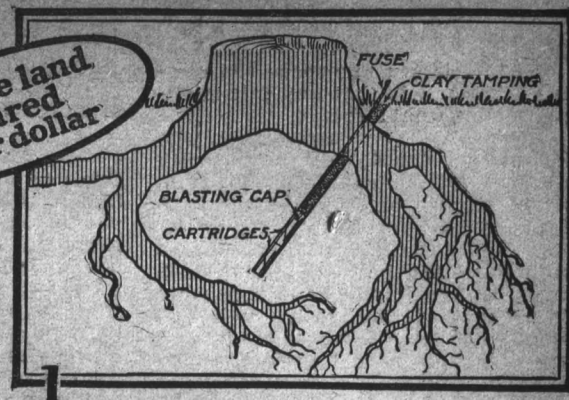
—Detroit Free Press.

Cordially yours.—UNCLE RUBE.

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—with DUMORITE. Save still more money by using the latest, cheapest blasting methods—



Making the Hole

IN blasting stumps, the first thing to do is to make the hole to receive the charge of dynamite.

The hole is made by driving a crowbar or driving-iron, or boring with a soil auger, at an angle to the stump, through its roots, to a depth of thirty inches to four feet. Make sure that the charge is placed directly beneath the most firmly fixed part of the stump.

The subsequent steps in stump blasting will be described in future issues of this paper.

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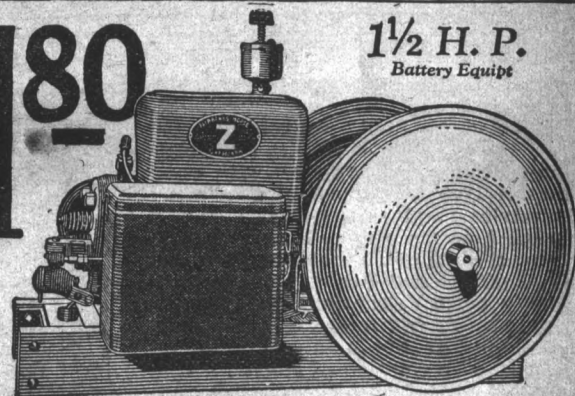
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LET HER FLAP

THE editor of one of our big dailies thus refers to that part of the fair sex known as the flapper in an article that any fair-minded woman would resent.

He says: "The earnest women who fought thru the decades of the 19th century for suffrage and who insisted on economic and legal freedom are primarily responsible for the flapper that she is in short a child of emancipation, strong, self-assertive and impudent, a legitimate by-product of the social upheaval among her sex." This editor has always been prejudiced against woman suffrage, and it is a very sore spot on his mental anatomy. Hence he likes to lay an evil at the door of that accomplished fact.

Woman suffrage has nothing to do with the flapper. We have always had this expression of human nature with us in one form or another and probably always will. Her predecessor was the dude of twenty years ago who was known in his community by his loud clothes, his vacuous stare and his fresh remarks. He was the masher who stood upon the street-corner not to be heard of men but to be seen of women.

The flapper may be bold, self-assertive and sometimes impudent, not because of suffrage of which she knows nothing and cares less but because she is in industry today, working hard, supporting herself and spending her own money, foolishly very often. She is self-sufficient, she enjoys her freedom and she feels her oats. We hope she will calm down and take herself and the world more seriously, will learn in time to seek the things of real value.

Down deep in her heart every woman or girl knows whether she is dressed modestly or whether she is not. A dress that shocks or draws attention is not modest whether it be high or low, long or short. No right-minded girl wishes to call attention to herself or to be the cause of so much worry to editors. A right mental attitude is the foundation of right living and right dressing. Does not that take us back to the influence of home, church and school, to father and mother first of all? The old-fashioned home with the chance it gave for hospitality and fun within its four walls would be the best cure for the flapper. Can you blame her for seeking the dance-hall, the movie and the street when she lives in a tiny apartment with rooms so small that there is scarcely room to live in comfort? She is the result of economic conditions and overcrowded population and she has my sympathy.

WOMEN'S VOTERS LEAGUE

THIS league has completed its third annual convention in Washington, D. C. It has been international in character, with representatives from most of the large countries and many small ones. South America was well represented; also the island republics such as Cuba, Haiti and Porto Rico. Canada sent a large delegation. Her women are taking a big interest in the civic and political life of the Dominion.

Such a convention of women could not help but have an educative and broadening effect on those attending and should strengthen the ties of friendship and understanding not only nationally but internationally and thus be a step toward that peace which we all want and which seems to be so elusive at this time.

WHO WANTS A LITTLE GIRL?

WILL you please inquire thru your paper if there is a family that would like a little girl seven years old? She is a healthy, good-looking child and has a good disposition. The family has been broken up and I want a good home for this child. I would not part with her if I could help it but I have the care of a baby of two and that is all I can do.—Mrs. Wesley Laney, R. F. D. 2, Vestaburg, Mich.

LET US HAVE SOME ANSWERS

PLEASE may I come in? First I have one fault to find with the Farm Home department. There isn't enough of it but I enjoy what there is, oh so much. I think there are many more like myself — can



Edited by MRS. GRACE NELLIS JENNEY

think of so many things they would like to say but don't know how to put it on paper, and afraid their name will be seen in print and some next-door neighbor will ridicule, but I want to ask a question and would like to have others answer. Who lives in a school district where hot lunches are served at noon, and what is your method and some of the dishes served? Is it cooked at home and reheated at the school, or cooked at the school? This of course applies to the one-room rural school.

Why do we not hear from the mothers in the consolidated school

Mrs. Cora Hine, Wellston, Mich., I have a number of "Gospel Trumpets" and Sunday school papers which I am sure she would enjoy and also quite a number of magazines including copies of Woman's World, The Argosy Weekly, and Today's Housewife. Please let me know if you would like to have them. And to those who want some pieces for quilts please write to me so I can get your correct name and address. I have two little ones to sew for so I have quite a number of nice pieces left over. How many of the readers of our page have any little chickens out this month? We have 14 hatched and 50 more eggs in an incubator. The name of our incubator is The Little Brown Hen. Does anyone know the song, "There's a Package of Old Letters"? It starts like this, the first verse reading like this: (In a little Rosewood Casket lying there upon the stand, There's a package of old letters; Written

ON THE TRAIN

LAST summer, when we went to Maine, We traveled overnight by train. At evening when my prayers were said The porter came to make my bed. He drew the curtains all around And shut me in all safe and sound So I alone could snugly lie And watch the stars go sliding by. What fun it was! and as I lay The moon came up as bright as day

So I could clearly see at last The country as we hurried past— The cows asleep upon the hill, The little houses dark and still A lighted town, a bridge, a brook, Like pictures printed in a book. But what seems puzzling to my mind We never left the moon behind— It shone above as clear as day And stayed right with us all the way!

—By Carol Haynes in Harper's Monthly

districts? It would mean so much to so many mothers. It is not taxes so much we are worrying about as it is the welfare of our children.

Once more—we read and hear so much about disarmament. Why, oh why, do we see so many air-rifles, little twenty-two's and shot guns parading all over the country in the hands of boys no more than little children? Can't we mothers begin early in life to instill a little horror in regard to the taking of life? Why not teach them that there is no real pleasure in taking the lives of our little friends of the woods, no matter how good a marksman they are. Perhaps by so doing we can save many an accident to life and eyesight among those we so dearly love.

I certainly appreciate M. B. F. May it continue to prosper and stand for all that is right. Sincerely—A Friend.

CORRESPONDENTS' COLUMN

A HELPING HAND

I would like to step in for a little chat with you dear people. I am a constant reader of our page and will say that I enjoy every letter I read. In answer to

by a cherished hand). I would like to hear from some one who knows it and will return the favor in any way I can. I hope you will let me come again.—Mrs. Hazen Miller, R. 2, Wheeler, Mich.

HOW TO ADOPT BOY

Will you please tell the lady who wrote concerning adopting a baby boy that if she will talk with the probation officer, or in case her county has none, write to M. J. B. Montgomery, Coldwater, Mich., she can obtain information as to the plan of the state for finding homes for children. We have had a boy in our home for four years, and during this time I have become much interested in the work.—Mrs. A. J. K.

AN AUTO KNITTER

I have just found your ad in the Woman's Department of the Business Farmer concerning the renting of an Auto Knitter. I have one I will either sell or rent and if you will give me this lady's full name I can drive over and see her as I only live about 9 miles from Scotts and lived there once myself.—Mrs. Norman Pierce, Climax, Mich.

INFORMATION ON KNITTER

If Mrs. H. V. Scotts, Mich., (whose ad I have read in your paper) will write to Mrs. H. M. Hale, Plainwell, Mich., she will receive information concerning knitter which she desires.—Mrs. H. M. Hale.

HAS BOOTIE PATTERN

If the reader who wants directions for making crocheted booties will send post-

AIDS TO GOOD DRESSING

For Simplicity, Service and Style. Spring Catalogs 15c. Address

Mrs. Jenney, Pattern Department, Michigan Business Farmer

We offer your 40c patterns for 12c. Many dressmakers are using them and all praise them highly. Send your orders in early. Give full address, number and size.



A Popular Ever Seasonable Style

3971. The apron and house dress are now considered an essential in every woman's wardrobe. Surely the model here portrayed will be much admired for its graceful lines and attractive pocket. As a porch "dress" or for garden and kitchen, this style will be very satisfactory.

The pattern is cut in 4 sizes: small, 34-36; medium, 38-40; large, 42-44; extra large, 46-48 inches bust measure. A medium size requires 4 yards of 36 inch material. The width at the foot is about 2 yards.

Pattern mailed to any address on receipt of 12c in silver or stamps.

A Simple Play Garment

3954. For the roly poly "small" person—this one piece model will fill every requirement of ease and comfort. Bands of plaid or check gingham on linene, or checked gingham with white pique for trimming will be good for this style.

It is cut in 5 sizes: 1, 2, 3, 4 and 5 years. A 2 year size will require 2-3 yards of 27 inch material.

Pattern mailed to any address on receipt of 12c in silver or stamps.

A Smart "One Piece" Model

3970. This simple style will find many admirers. It speaks for grace and comfort and is attractive for gingham, linen, as well as jersey. Binding of braid or contrasting material will form a suitable decoration.

The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. A 38 inch size requires 4-3-8 yards of 40 inch material. The width at the foot is about 2 yards.

Pattern mailed to any address on receipt of 12c in silver or stamps.

A Comfortable Suit for the Little Man

3955. It is the touch of something different that will please a "youngster." The closing of the blouse on this model is concealed under a plait. The trousers are cut on regulation lines, and finished with side closing. Linen, gingham or repp may be used for the entire suit, cloth mixture or khaki, and the blouse of madras, linen or gingham.

The pattern is cut in 4 sizes: 2, 3, 4 and 6 years. The 3 year size requires 3-1-8 yards of 27 inch material for the entire suit.

Pattern mailed to any address on receipt of 12c in silver or stamps.



age and return the same, I have a bootie in afghan stitch and also a pair of Lion Face slippers for tots, I would be glad to loan. I have knitted sweaters for youngsters and also some very pretty knitted lace patterns.—Mrs. Clyde Paxton, Millbrook, Mich.

LIME IN TEAKETTLE

Will someone please tell me how to remove lime from the inside of teakettles?—Mrs. E. B.

GOITRE CURE

Here is a goitre cure which I know is very good:

1 oz. colored iodine, 1 oz. of strongest kind of ammonia. Put both in one bottle and let stand until it becomes colorless, then apply once or twice a day with a small brush. The iodine takes swelling down and the ammonia kills the disease.—Mrs. A. S. LeRoy, Mich.

JELL-O RECIPE

I discovered a Jell-o recipe a few days ago that our family and neighbors all declare delicious. It is an adaptation of one sent in by one of our readers some weeks ago. Here it is:

One package of orange jell-o, 1 pint of boiling water, add 1 cup of grape-nuts or browned bread crumbs, 1 cup of cut figs, 1 cup of cut dates, 1-2 cup nut meats, 1 pinch of salt. Let harden and serve with whipped cream on a thin custard. It is so quickly made and so good.

BREAD STARTER RECIPE WANTED

I would like to know if you or some subscriber could give me a recipe for starting "Bread Starter" that is made without yeast cake. It is made with potatoes, water and sugar, to which is added a portion of "starter." I have had this starter from a friend who in turn received it from some friend, but there must be a way to start it and I would be glad to have someone send a recipe to the M. B. F.—E. H.

RECIPES

I thought maybe some of the M. B. F. ladies would like to try these recipes. Have used them for years and know they are all right:

Blackberry Jam Cake

Three eggs, 1 cup sugar, 1-2 cup butter, 1-2 cup jam, 2 cups flour, 1 teaspoon cinnamon, 1-2 teaspoon nutmeg, 1 teaspoon soda dissolved in 3 tablespoons sour milk. Add jam last and bake in layers.

Poor Man's Cake

One egg, 1 cup sugar, 1-4 cup shortening, 1 cup sour milk, 1-2 cup raisins, 1 tablespoon molasses, 1 teaspoon soda, 2 cups flour, 1 teaspoon cinnamon, 1-4 teaspoon nutmeg, pinch cloves, pinch salt.

Egg Dumplings

Two eggs, slightly beaten, 1 cup sweet milk, 1 teaspoon salt, 2 teaspoons baking powder, 2-1-2 cups flour. Drop from spoon into hot soup and boil 20 minutes. These are fine and do not get heavy like dumplings made without eggs.

Boston Cookies

One and one-half cups sugar, 3 eggs, 1 cup shortening, 1-2 cups finely chopped raisins, 1-2 cup hot water, 1-2 teaspoon soda, big pinch salt, 2-1-2 cups flour. Spread real thin in dripping pans and bake, then cut in squares.—Mrs. W. J.

CANNING HORSE RADISH

I thought I would write to you and see if any of your readers have a recipe for canning horseradish so it would keep. I enjoy reading the M. B. F. very much and think it is lots of help to anyone. Wishing success to you all, I remain.—B. McR., Kingston, Mich.

A GOOD COFFEE CAKE RECIPE

1 cup sugar, 1-2 cup butter, 1-2 cup molasses, 1-2 cup cold coffee, 2 eggs, 1 teaspoon soda, 2 cups flour.

Rolled Jell Cake (Fine)

1 cup sugar, 3 eggs, 3 tablespoons of cold water, a pinch of salt, 1 heaping teaspoon baking powder, 1 cup flour, flavoring to taste. Bake in long dripping pan.—Mrs. H. D. Nye.

HOW MOTHER CLEANS HOUSE

CLEANING time is here once more. So open the windows and the door. We must have lots of air and light. If we would do this cleaning right It's cleaning time.

Just take the curtains, pictures, books. All down from their accustomed nooks. Take everything from off the wall. And move the stove out in the hall. It's cleaning time.

Remove the things from off the rug. Then roll it up and lift and tug. Until you've got the thing out door. And pounded it an hour or more. It's cleaning time.

My mother does this cleaning right, She moves out everything in sight, Then father seeks the farthest fields. Does not come in except for meals. At cleaning time.

There's furniture within, without. Our things are scattered all about, While mother sweats and scrubs with vim. Before she makes our house look trim. At cleaning time.

I run on errands here and there. To get a broom, a mop, a chair; And there is scarce a place to meet. When it is time for us to eat. At cleaning time.

Mrs. Jones, who lives quite near us. About her cleaning makes no fuss. She cleans one room each day all right. And finishes it before it's night. At cleaning time.

She's never rushed, has time to chat. About the room she's working at. Her house is never in a whirl. I'd like to be her little girl. At cleaning time.

Written especially for "Our Page" by Mrs. N. B. H., Otsego, Mich.

The Children's Hour

DEAR CHILDREN: What do you think of our department this week? Just about the most interesting we have had for some time isn't it? I am discovering that there are several poets among my nieces. Iris Arnold, Mt. Clemens, sent me a nice poem which she composed but it is so long that I do not feel that I can print it this week.

I want you all, or as many of you as can, to do a favor for me. One of our subscribers wrote to me and wanted to know if the boys and girls of the Children's Hour would send birthday cards to her son. His birthday was May 5th and he was 9 years old on that day. Now this issue of M. B. F. does not reach you until several days after his birthday but I wish you would all send him cards, he will be just as pleased to receive them. And be sure to write on the card when your birthday is because he wishes to remember you all on your birthday. Our subscriber writes: "I think the more we try to do something to please others the happier we are." Isn't that true? The name and address of the boy is Lester Lee Backmore, Leslie, Mich. Now do not forget him will you?

I hope you all enjoy the story. This story is about a state champion and his work. Other stories on club work will appear in coming issues. I am sure there are many club members among the members of the Children's Hour and I would like to receive stories from them all. Write about your club work, why you like it, what you are going to take up later, etc. I will find space to print them.

Do not forget that May 14th is Mother's Day. Go into the woods and gather some flowers for her, tell her how much you love her. She will be glad to hear it and will like the flowers.—UNCLE NED.

OUR BOYS AND GIRLS

Dear Uncle Ned—The Children's Hour is quite nice and I would like to join it. We have taken the M. B. F. for a little more than a year, and we all like it well. It seems everybody does. I like all the departments but especially the story, "Nomads of the North." I think it is just beautiful, and very interesting. You should understand that I am always interested about nature, and I think this story has quite a lot about it. The next best part is the Children's Hour. I suppose you might think I do not like it as well as the story, because I put it down second, but you see I am a great story-lover and they always come first in my mind. I think if the children who have any stories or poems would send them in (and I think there are many who have) it would make this corner so much more interesting. I enclose a poem that I have composed. I have many others. I am a girl twelve years old and in the seventh grade. I remain your niece.—Milda Baravix, R. 2, Branch, Mich.

Signs of Spring

When pussy-willows wake from sleeping,
When the birds come back and sing,
When the soft, green grass starts
creeping,
Then we know it is spring.

When the days are bright and sunny,
When it thunders with the rain,
When the bee starts search for honey,
We know it is spring again.

Dear Uncle Ned—I am a girl fourteen years old, my birthday was the fourteenth of April. I live on a two-hundred-acre farm. I am in the seventh grade. We have ten grades in our school. There are two rooms. My father takes the M. B. F. and likes it real well. This is the first year we have taken it and we like it so well we will try and take it right along. We all enjoy reading "Nomads of the North."

Two years ago I joined a pig club, and bought a Poland-China pig, she didn't prove profitable, so I didn't keep her. I enjoy all outdoor sports especially swimming. There are some good trout streams near here. Last summer I went camping with my girl chum. We had all the trout we could eat. My chum died this spring. Her birthday was the fourteenth of March. She died two days later. I miss her very much.

I have three brothers and one sister. My mother died three years ago and my sister and I keep house. I am going to be real busy this summer. We are going to raise cucumbers. I would be very glad to hear from some of the cousins. Your niece.—Beth Winslow, Selkirk, Mich.

Dear Uncle Ned—I am a member of your merry circle. I would like to come to Mt. Clemens some time. If I did I would come to your office and see you I am sure. I have never been in any very large cities. Fort Wayne, Ind., is somewhere near the largest. I think that we cousins ought to write stories and poems with our letters some times to make

them more interesting. When I write another letter I will write a story or poem. I am writing this letter at school as I have some spare time. I am eleven years old. I study reading, arithmetic, physiology, grammar, penmanship, geography, history and spelling. I will close with a joke. A man said, "Is there any selection you would like me to play on my horn?" The other man answered, "Yeh, quit and play safe."—Frances V. Lovin, Vicksburg, R. 4, Mich.

Dear Uncle Ned—I have written to the Children's Hour twice but the last time it was not printed so I thought I would write again as I never get discouraged because I know we have only a small space for our letters. It is the same way with everything we do, never get discouraged. Let these three words be our motto and I think we will all succeed. I think some kind of a discussion would be very nice.

I think the country is better than the city, but maybe it's because I have never lived in a large city, although I have lived in quite a large town. It may be easier in the city but it doesn't hurt us to work especially in the nice, fresh country air. In the country one is most always sure of fresh, clean water which is one of the great blessings to humanity. It is usually better because it generally comes from springs. One is not so liable to get tuberculosis because the air is more fresh and pure. We once had a debate at our school, "Which is best the Country or City," and the judges declared the city had won. But I do not agree with them yet because we all know where there are many people the air is not near so pure as it is where there is a small population. The same way with disease. There are usually more people about and they are liable to bring disease germs. I have had the measles, mumps, whooping cough and chicken pox, but it was while I went to town school. I am thirteen years of age. With best wishes to Uncle Ned and the cousins.—Margaret Remnant, Chelsea, R. 2, Mich.

Dear Uncle Ned—I was nine years old the 20th of February and got lots of nice presents. I wish the children had more room for the letters. There are 15 children in our school. I have been through two readers this year and am in another one. I have a pet hen. We have four cows and a calf, and mamma has thirty-two little chickens. Our neighbor moved away but before they went they held a sale and my sister and I went over to the sale from school and we came home crosslots, and we got in the water to our waist and we were a long ways from home. It happened right in February. I have two big dolls, one had electric eyes. I am going to have a garden and papa has plowed it. I will close with love.—Hazel Potter, Penfield, R. 1, Mich.

Dear Uncle Ned—May I join your merry circle? My father takes the M. B. F. and I like to read the Children's Hour. I have 2 sisters and 4 brothers. I am 13 years old, my birthday is the 2nd of January. I have a twin brother and sister. I live on an 80-acre farm. We have 3 horses and 1 colt, and 7 pigs, 10 cows and a calf. We have about 1 1/2 miles to go to school. I like my teacher. I wish some of the girls and boys would write to me. With love to Uncle Ned and cousins.—Mary Friend, Glennie, Mich.

Dear Uncle Ned—I live in the town of Remus, mostly, although we have an 80-acre farm three and one half miles from town. My father is a rural carrier on Route 3. He has carried mail since 1905. I am now his substitute carrier and hope to take examination for regular carrier this summer. I do not go to school any more as I have passed the tenth grade. My age is seventeen years and my birthday is on Armistice day, Nov. 11. Hope to hear from some of the boy and girl readers of M. B. F.—Carl E. Weeks, Remus, Mich.

OTHER LETTERS RECEIVED

Margery Esch, Suttons Bay, R. 1; Helen Turner, R. 1, Perry; Arthur Finch, Farwell, R. 3; Ha C. Dutcher, Ovid, R. 1; Lillian Kuivinen, Lewiston; Ruth N. Elson, Grant, R. 2; Cyrus B. French, Elwell; Lenora Holden, Mape City; Emma-line Cosens, Akron, R. 3; Alma Davis, Bay City, R. 2; Laurine Hicks, Clio, R. 3; Saginaw, W. S., R. 3; Caroline Grould, 3; Ivola Waite, Flushing, R. 2, Mich.

BOY POTATO-GROWER SHOWS THE REST OF THE STATE HOW

By C. E. Johnson, M. A. C. Correspondent

TAKING his place with farmers three times his age is 18-year-old Ted Stenson of Bovington, Baraga county, who last year raised 420 bushels of potatoes to the acre and for the third time won the championship of the state for Boy's Potato Clubs. So good was his showing that R. A. Turner, State Club Leader, said that he did not see how any one could beat him.

The methods which Ted practiced are no different from those any one can use. He chose for his plot a quarter-acre strip along-side his father's potato field. It was a clay loam soil with a hard pan sub-soil. The year before it had been in hay and Ted plowed it to a depth of 4 inches the first of June. The soil was

(Continued on following page)



Guardians of the Circuits

The telephone at your elbow seems so simple an instrument, it does its work so quietly and quickly, that it is difficult to realize the vast and complex equipment, the delicate and manifold adjustments, the ceaseless human care "behind the scenes" in the central offices.

Behind the scenes is the terminal of all the underground and overhead lines on the streets and highways. Here are the cable vaults; the great steel frames containing the thousands of separate wires and fuses for the subscribers' lines; the dynamos and storage batteries; the giant switchboards through which your telephone is connected with the other thirteen million telephones in the Bell System.

And here, in charge of this equipment, are the guardians of the circuits—the wire chief and his assistants—master electricians and experts in telephony. Their first duty is the prevention of "trouble." By day and by night they are constantly testing the central office equipment, the overhead and underground lines, the subscribers' individual wires. And when, from some cause beyond control, "trouble" does occur, nine times out of ten it is repaired before the telephone subscriber suffers the slightest inconvenience.

It is the skill of the men behind the scenes, together with scientific development and construction, efficient maintenance and operation, which make it possible for you to rely upon the telephone day and night.

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10 lb. Herring at\$1.15	20 lb. Herring at\$1.80
10 lb. White at\$2.10	20 lb. White at\$3.65
10 lb. Mackerel at\$3.10	20 lb. Mackerel at\$5.65

Smoked Whitefish, by mail, postage paid, 3 lbs. for 85c; 5 lbs. for \$1.25.

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and on a plan whereby they earn their own cost and more by what they save. Postal brings Free Catalog Folder. Buy from the manufacturer and save money.

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MY BIG CUT PRICE SALE

BARGAIN BOOK FREE
Over 600,000 customers know my prices beat them all. This latest sale means BIGGEST SAVINGS THAN EVER. BUY NOW!

DIRECT FROM FACTORY
Fencing, Gates and Steel Posts, Roofing and Paints too. All prices slashed. Write me quick for 88-page free book.

BROWN FENCE & WIRE CO., Dept. 1275, Cleveland, Ohio

BIG SAW SALE \$64.50 AND UP

On Newest Improved Model at lowest prices ever made. **OTTAWA LOG SAWS** Saw Limbs. Lightest built. Easy to use. Cash Easy Terms. Guarantee. Free Book. Write.

OTTAWA MFG. CO. 14829 100th St., Ottawa, Kan.

300 STRAWBERRY PLANTS, POSTPAID \$2
150 Sen. Dunlap, 150 Warfield
HAMPTON & SONS, Bangor, Mich

rolled and harrowed twice before planting, leaving it in good condition when it was planted. Three loads of stable manure were applied, but none of the expensive fertilizers were put on the soil.

For seed Ted used large tubers which he cut lengthwise. The seed was some which he had raised the

year before and originated, so the story says, from some tubers brought over from Ireland. They were of the Green Mountain variety. Ted planted them by hand early in June. The rows were 2 1-2 feet apart and the seed was planted 16 inches apart in the row. They came up about June 20 and were cultivated 4 times

during the summer. The bugs did not bother Ted's potatoes very much. However, he sprayed them three times with Tubercotic during the middle of the summer. They matured late in September and when Ted harvested them he had 105 bushels, 98 bushels of salable ones and 7 bushels of culls. The marketable potatoes were worth 85 cents a bushel or \$83.30, the culls at 30 cents a bushel were worth \$2.10 and the seed which was saved (6 bushels at 75c a bushel) was worth \$4.50, giving Ted a total of \$89.90 from his quarter-acre. He figured up all the costs and charged for his own labor. This came to \$16.50, which when taken from the total receipts left him a net profit of \$73.40 or at the rate of \$293.60 per acre. The average cost for growing the spuds was 15 5-7 cents per bushel.—C. E. Johnson, M. A. C.

(Ted's club experience will be told in his own words in the next issue of M. B. F.)

FEEDING OF BABY CHICKS

MUCH of the success of our laying pens depends upon the way in which the chicks have been reared and grown. Good healthy robust chicks mean strong vigorous layers capable of a large and profitable winter production.

The chicks should receive no setbacks from the time they are hatched until they are placed in the laying pens. This can most easily be avoided by practicing limited or retarded early feeding. The appetite of the chick must be closely watched and the amount of feed fed, regulated so that they will always be hungry and keen for the next meal.

Nature has provided the chick with a "bread-basket" containing sufficient food to last three or four days. Before the chick emerges from the shell, the remainder of the yolk which has been used for nourishing the growing embryo is absorbed into the intestine. For this reason limited early feeding should be practiced until the yolk is completely assimilated by the chick.

FIRST DAY—After incubation the chicks should be left in the incubator to "harden off." During warm weather the incubator door may be opened slightly to provide a good supply of fresh air and reduce the temperature within the machine.

SECOND DAY—Remove chicks to the brooding quarters which have previously been heated. Clean white sand makes an ideal floor covering for the first two weeks. The chicks will pick at and consume sufficient of these gritty soil particles which are essential in getting the digestive tract in good working order and ready for the first feed. Sour, skim milk, or buttermilk should be provided in shallow dishes. The acid of the milk has a beneficial effect on the digestive system of the chick, having a tendency to control or reduce the development of Bacillary White Diarrhea organisms. The food value of the skim milk also stimulates the chick, causing rapid growth and developing strong resistance.

THIRD DAY—The initial food given should be easily seen and nutritious. The growing embryo was developed on raw egg, so by using the infertile eggs that were taken out at the first test and carefully preserved in a cool place we have an ideal starter.

Mix two handfuls of clean bran, two handfuls of rolled oats (breakfast food) and one raw egg. This proportion should give the proper consistency and makes a very palatable and nutritious chick food. Feed five times, every two and one-half hours apart. Keep skim milk available throughout the growing season.

FOURTH DAY—Feed commercial chick feed twice. Feed egg mixture three times at regular intervals throughout.

FIFTH TO FOURTEENTH DAY—Two feeds of commercial chick feed, three feeds of egg mixture, one feed of green food, sprouted oats preferred. Place bran in flat hopper available at all times.

FOURTEENTH DAY TO TEN WEEKS—Quickest gains can be secured by moist mash. Feeding of the following ingredients: Bran, middlings, ground oats and corn meal in equal parts. This should be

(Continued on page 20)

White Diarrhea

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

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

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

Cause of White Diarrhea

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

Never Lost a Single Chick

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

Never Lost One After First Dose

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

You Run No Risk

We will send Walko White Diarrhea Remedy entirely at our risk—postage prepaid—so you can see for yourself what a wonder-working remedy it is for White Diarrhea in baby chicks. So you can prove—as thousands have proven—that it will stop your losses and double, treble, even quadruple your profits. Send 50c for package of Walko—give it in all drinking water for the first two weeks and watch results. You'll find you won't lose one chick where you lost hundreds before. It's a positive fact. We guarantee it. The Leavitt & Johnson National Bank, the oldest and strongest bank in Waterloo, Iowa, stands back of this guarantee. You run no risk if you don't find it the greatest little chick saver you ever used, your money will be instantly refunded.

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

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

Name

Town

State

Mark (X) in square indicating size package wanted. Large package contains nearly three times as much as small. No war tax.

A GREAT BARGAIN SALE of SHOES of TIRES BLANKETS

Send No Money With Order Pay when the goods arrive. These are great bargains—you will make a big saving on any article you select—just a letter or postcard brings any of these smashed bargains. When your order arrives, after careful examination, if you are not well pleased simply return the goods and your money will be cheerfully refunded.

Women's Tan Calf, One Strap

Think of buying a genuine calfskin dress shoe at this very low price. These shoes sold for as high as \$6.00. Order a pair and see for yourself. No. 3200, sizes 3 to 8

\$1.95
Plus Postage

Ladies who look further? Here is a Juliet built for comfort and long service. Kid finished uppers, patent stay, rubber heels attached. Light, strong soles. No. 7080, sizes 3 to 8

\$1.69
Plus Postage

Men's Dress Shoes

Made of durable black gun metal. Strong, long wearing leather soles. Wide roomy last. A shoe that every man will be pleased with. Priced very low for quick selling. Order black by No. NL60X, sizes 6 to 11

\$1.98
Plus Postage

Order tan side leather by No. NL-1390, sizes 6 to 11, plus postage **\$2.95**

Men's and Boys' Tan Elk Scout Shoes

Strongest leather soles, that will not come off. The most popular work shoe made. One pair sells another. Men's, No. 960X, sizes 6 to 12

\$2.35
Plus postage

Boys', No. 9680, sizes 1 to 5½ **\$1.98**
Plus Postage

New, Fresh Stock. Shipped Same Day as Ordered.



Send no money with order—Pay when goods arrive—Plus postage.

CHASE SHOE COMPANY, Dept. 30, Minneapolis, Minn.

Rich Black Patent Leather Flapper for Women

Fashion's latest fancy. A beautiful slipper for dress wear. This is your opportunity to secure the latest style at a great saving. Strong leather soles. Military heels. No. C653X, sizes 3 to 8, widths C, D and E

\$2.98
Plus postage

Same style in tan side leather, No. C653½, sizes 3 to 8 **\$2.98**

Women's Genuine Kid Comfort Oxfords

Where can you buy them for less? Look everywhere, then we know you will send us your order. Rubber heels. Leather soles that are firmly fastened. Uppers are made of soft kid leather. Order by No. NL5540, sizes 3 to 8

\$1.69
Plus postage

Order plain toe by No. NL7090, sizes 3 to 8 **\$1.69**

Women's Two-Strap Slipper

Soft kid finished leather. Rubber heels. Light strong leather soles. A bargain that we believe has never been offered before. Order by No. NL-7820, sizes 3 to 8

\$1.39
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Women's One Strap Slipper, No. 7310, sizes 3 to 8 **\$1.39**

Regular O. D. Khaki Blankets

Olive drab. Order by No. NL2005

\$2.95
Plus postage

Buy these wonderful all wool now—use them most any time. Ideal for camping, fishing or motoring.

Save many dollars by ordering now. While they last at this low price. Order by No. NL2005 **\$2.95** and postage. Send no money—pay when goods arrive.

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30x3, nonskid fabric | 30x3½, nonskid only
\$6.45 | \$7.95

Our fabric and cord tires are manufactured by one of the leading tire manufacturers and we guarantee them to give as good service as any tire made regardless of name, price or reputation. Fabrics, 6,000 miles guaranteed; cords, 10,000 miles.

Sizes	Non-Skid Special Fabrics—Bargain Price	Nonskid Cords	Heavy Tubes
30x3	\$6.45	\$12.95	\$1.29
30x3½	7.95	18.95	1.45
32x3½	10.95	22.60	1.95
32x4	11.95	23.85	1.98
32x4½	13.95	24.85	2.05
34x4	15.35	25.45	2.10
34x4½		30.45	2.65
34x4¾		30.85	2.80
34x4½		31.45	2.95
35x4½		32.60	3.00

Other sizes in proportion.

Easy Now to Rid Your Farm of Rats

Wonderful Discovery by Noted Scientist Kills Every Rat Within a Week's Time—Not a Poison.

Rats cost farmers over two hundred millions of dollars a year, through the destruction of grain, poultry and buildings. Farmers need no longer suffer this loss because they can now kill off all the rats on their farm in less than a week's time. This is possible through the remarkable discovery of E. R. Alexander, a Kansas City chemist, who has perfected a virus which kills rats, mice and gophers as though by magic. This product is not a poison—it can be eaten by human beings or any animal on the farm as safely as their regular food, but means quick, sure death to rats.



This wonderful rat virus, which is known as Alexander Rat-Killer, is merely mixed with bread or meat scraps and placed where rats, mice or gophers can get to it. Within a few hours after a rat has eaten Alexander Rat-Killer he gets a high fever and suffers a terrible thirst. He leaves the barns and nesting holes and goes to the open fields in search of pure air and running water. Rats and mice affected always die away from the barns and houses so there is no odor.

It is a scientific fact that one rat affects others and soon the whole colony leaves the buildings and dies. And though this virus is absolutely deadly to rats—chickens, hogs, cattle or any farm animal can eat it and not be affected at all.

So confident is Mr. Alexander that Alexander Rat-Killer will kill every rat on your farm in less than a week's time that he offers to send, as an introductory offer, a regular \$2.00 tube for only \$1.00. Give it according to directions, and if at the end of a week's time you are able to discover any rats, mice or gophers on your farm, your money will be refunded. A big Kansas City bank guarantees that Mr. Alexander is reliable and will do as he says.

Send NO MONEY. Just write to E. R. Alexander, Alexander Laboratories, 263 Gateway Station, Kansas City, Mo., and the tube will be mailed at once. When it arrives, pay the postman only one dollar and postage on the guarantee that if not absolutely satisfactory your money will be returned without question. Write today—a postcard will do—and stop your rat losses now.

Death Claim Settled

The chauffeur of Ex-Governor Warner accidentally collided with a motorcycle and a young man twenty-eight years of age was killed and a sixteen-year-old boy was seriously injured. Ex-Governor Warner was insured in the Citizens' Mutual Automobile Insurance Company of Howell and the matter was fully adjusted on April 27. Howard Warner, the son, stated that they were well pleased with the adjustment. They keep eight or ten cars and trucks all of which are insured in the Howell Company. Every policy carries a liability clause of \$5,000. With the present heavy traffic on all the highways in Michigan, accidents are increasing.



Use Supreme Brand Tablets
FOR
WHITE DIARRHOEA
FOR YOUNG CHICKS
Guaranteed Remedy for Cholera, White Diarrhoea and other forms of bowel trouble in Poultry. Simply add tablet to drinking water.
100 TABLETS \$1.00 POSTPAID
NORTHVILLE CHEMICAL CO.
NORTHVILLE, MICH.

FRUIT and ORCHARD

EDITED BY FRANK T. WELLS

SPRAYING YOUNG TREES— RASPBERRY SUPPORTS

What should be used for spraying a two-year-old apple, plum, pear and cherry orchard? There is no scale at present.

At what time in the spring should the straw covering be removed from overbearing strawberry plants, or would it be advisable to leave it on and let the plants grow up through it?

Last year we set out seventy-five blackberry and raspberry plants, the Eldorado, Golden Queen and Cumberland. During the summer they made a growth of several feet and lay on the ground instead of standing upright. What is the best kind of a support for them?—E. R. Arenac County.

Since there is no scab and the trees are not old enough to bear the object of spraying is to protect the foliage. Either Bordeaux or the 1 to 35 lime-sulphur solution as a fungicide, may be used on apple, pear, cherry or European plums, but should not be put on peach or Japanese plum, as even a much weaker solution will take off the foliage. This should keep the leaves free from scab, shot-hole fungus and others of the common fungous diseases.

For the benefit of the cutting or chewing insects, the worms and beetles, arsenate of lead is added to the solutions at the rate of one pound of the powder or three of the paste to 50 gallons. This will dispose of leaf-rollers, tent caterpillars, canker worms and several others in their season.

If there are no blossoms on the trees the spray may be used at any time after the buds have opened. Repeat in about two weeks and afterwards as often as insects appear.

Should there be any green aphids on apple or pear, or black aphids on the cherry, they should at once be given a nicotine spray and it should be done before the leaves have curled, otherwise it is difficult to make an effective application. Black-leaf 40 is the remedy most commonly used. One pint of it is sufficient for 100 gallons of water. Soap added to it makes it more effective. Any kind may be used, but fish-oil is preferred. Four or five pounds are dissolved and added to 100 gallons of the nicotine solution. This is a contact spray, which is the only kind effective for aphids.

Uncover overbearing strawberries when you do the common varieties. If the cover is thin it need not be removed, but there should not be enough to interfere with the growth of the plants.

Perhaps as serviceable a support as any is a wire stretched along the row and 2 1-2 or 3 feet above the ground. Cut back the cones and tie up.

THINNING STRAWBERRY PLANTS

I have a two-year strawberry patch which was planted in rows, but is now a solid mass. They should be thinned, but what is the best method of doing so? When is the best time to set strawberry plants?—A. J. M., Saginaw County.

One method is to plow along the old rows, leaving the new plants between the rows. The furrows are then cultivated smooth, making a place for the runners next summer, thus renewing the bed.

Another way is to take a hoe or spud, and go at it, chopping out the old plants and thinning the others. The result may be a smaller yield, but larger fruit. Which method is the more suitable to your case can best be told by one who has seen the bed.

Strawberries may be planted at any time after spring opens till the middle of May, or some years even later. But most growers prefer to set them as early as they can.

If you could have one kind of apple only, what would that be? There are more than a thousand varieties. Perhaps the Spy has as many friends as any.

The English walnut lies and bears fruit in Michigan. How far north it will grow we do not know, but we have seen fine trees in Lapeer county, some of which have come from nuts produced there. It is hardly to be expected that the tree will prove of commercial importance as a nut bearer in this state, as it is on the Pacific coast, yet it should be of value to supply the family and friends with this product. Have some of our readers grown it? If so we shall be pleased to hear in regard to the soils and conditions to which it is adapted, how productive it is and at what age it comes into bearing. Also the relative merits of home grown trees and nursery stock.

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NOT A KICK
IN A MILLION FEET
**ROOFING
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"Not A Kick In A Million Feet"

**WIN \$1000.00
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Puzzle FREE**

Send at once for big clear copy of the small picture puzzle shown here. Complete instructions and full details will be sent at once by first class mail. Do not try to solve puzzle from the picture, but get a good clear copy to work from.

FIND THE MOST OBJECTS BEGINNING WITH "C"

You can find quite a few "C" objects in the above picture even though it is small. Get the big free picture and full details and if you intend to go in for the big prize, send no money but just use the coupon and make your answer eligible for the big prize at once.

FOLLOW THESE RULES

First prize will be given for the largest number of words which correctly name objects shown in the picture beginning with "C". Prizes will be awarded according to the prize list shown here and in case of ties the full amount of the prize will be awarded each contestant. Each object can be named only once. Webster's New International Dictionary will be used as authority for all words by the Judges, and one credit will be given for each correct word and one credit deducted for each incorrect word. Do not include obsolete, hyphenated or compound words. Winning lists will be based upon all the applicable words submitted and not from any master or predetermined list. Where the singular is used the plural cannot be used and vice versa. Where several synonyms are equally applicable to any object, any one of such synonyms will be given credit. Answers must be mailed by June 24, 1922. The winning answer will be published and a copy sent to anyone sending in a self addressed stamped envelope.

Laymore

"Makes the Lazy Hen Lay"

SEND NO MONEY

Thousands of poultry raisers are making big money by using Laymore. This scientific discovery acts on the laying organs of the hen with amazing results. In order to get more people acquainted with Laymore we are putting out this big booster picture puzzle campaign. If no Laymore is purchased 1st prize will be \$20.00; but if you wish to try for the big \$1000.00 prize fill out the coupon and the Laymore will be sent without your advancing one penny. Pay the postman \$2.00 plus the small postage fee and your answer will be eligible for the \$1000.00 prize. The Laymore will be sent at once, but your answer can be mailed any time up to June 24th. Mail the coupon now.

MAYER COMPANY
420 Washington Ave. N. MINNEAPOLIS, MINN.

The Prizes

Winning answers will receive prizes as follows:

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Laymore is Ordered

1st \$20.00 \$1000.00

2nd 15.00 300.00

3rd 10.00 150.00

4th 5.00 75.00

5th 5.00 40.00

6th 3.00 20.00

7th 3.00 20.00

8th 3.00 20.00

9th 2.00 15.00

10 to 15 2.00 10.00

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Send me the big picture puzzle and full instructions FREE. Also send me 5 packages of Laymore for which I agree to pay the postman \$2.00, plus postage, on arrival. This order makes the answer I will send in eligible for the big \$1000.00 Prize.

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TOWN _____



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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, M. B. F., Mt. Clemens.

May 20—Holsteins, B. R. McPherson, Howell, Mich.
June 21—Shorthorns, C. H. Prescott and Sons, Tawas City, Michigan.

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Ed. Bowers, South Whitley, Ind.
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Porter Colestock, Eaton Rapids, Mich.
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C. S. Forney, Mt. Pleasant, Mich.
John Hoffman, Hudson, Mich.
John P. Hutton, Lansing, Mich.
J. R. Love, Waukesha, Wisconsin
L. W. Lovewell, So. Lyons, Mich.
J. E. Mack, Ft. Atkinson, Wisconsin
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on the block. In the ring.
We make a specialty of selling pure bred big type Poland Chinas, Spotted Poland Chinas and Duroc Jerseys. We are experienced. We sell 'em and we get the money. We are expert hog judges. We are booking dates right now for 1922 sales. We would like to sell for you. We have one price for both of us and it's right. Select your date; don't put it off; write today. Address either of us.

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CATTLE

HOLSTEIN-FRIESIAN

FOR SALE—TWO BULL CALVES, A HOLSTEIN and Durham about 8 months old. Both have heavy milking dams. Not registered. \$50 each if taken at once.

CHASE STOCK FARM, Marlette, Mich.

FOR QUICK SALE WE ARE OFFERING your choice of nearly 50 purebred Holsteins. Nearly all cows and heifers. Bred well, yearly records, free from t. b. Priced right. Breeder since 1913. Write us your wants.

WOLVERINE DAIRY FARM, Gladwin, Mich.

SHOW BULL

Sired by a Pontiac Angie Korndyke-Hengerveld DeKol bull from a nearly 19 lb. show cow. First prize junior calf, Jackson 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

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. Jr. 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.

TUEBOR STOCK FARM

Breeders of Registered Holstein cattle and Berkshire Hogs.

Everything guaranteed, write me your wants or come and see them.

ROY F. FICKIES
Chesaning, Mich.

HOLSTEIN CALVES, 7 weeks old, 31-32nds pure. Tub. Tested, \$25.00 each, crated for shipment anywhere. Satisfaction guaranteed.

EDGEWOOD FARMS, Whitewater, Wis.

HOLSTEIN 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 up to 30 lbs. Priced at \$100 up. Federally tested. Write for list.

ALBERT G. WADE, White Pigeon, Mich.

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.

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HOLSTEIN FRIESIAN PURE-BRED BULL calves; tuberculin tested herd. Prices are right.

LARRO RESEARCH FARM, Box A North End, Detroit, Michigan.

BULL READY FOR SERVICE

FROM ACCREDITED HERD

Sire, Son of Sire Veeman Hengerveld and a 28.5 lbs. daughter of King Korndyke Sadie Vale. Dam, Segis Alcatraz Netherland splendid Heifer with a record of 15.23 lbs. butter, 349 milk at 2 years 28 days.

Bull is extra good individual, 1 year old. Write. Price \$100.00.

M. CRADELL & SON, Laingsburg, Mich.

SHORTHORNS

SHORTHORN CATTLE AND OXFORD DOWN sheep. Both sex for sale.

J. A. DeGARMO, Muir, Mich.

FOR POLLED SHORTHORNS

Shropshire, Southdown and Cheviot rams write to L. O. KELLY & SON, Plymouth, Mich.

FRANCISCO FARM SHORTHORNS AND BIG TYPE POLAND CHINAS

Now offering:—Three bulls ready for service. Mastodon, Clansman, Emancipator breeding in gilts bred for spring farrow. See them.

POPE BROTHERS CO

Mt. Pleasant, Michigan

SHORTHORN BULL CALF REGISTERED dropped Jan. 25, 1922. Price \$50 or will consider trade for milking Shorthorn bull. FRANK THILL, Fayette, Mich. (P)

SHORTHORNS AND POLAND CHINAS. We are now offering two ten-months-old bulls, one bred heifer, and two ten-months-old heifers.

SONLEY BROS., St. Louis, Mich.

INHERITED SHORTHORN QUALITY

Our pedigrees show a judicious mixture of the best blood lines known to the breed. Write to JOHN LESSITER'S SONS, Clarkston, Mich.

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ANNUAL SALE JUNE 21st AT THE FARM

30 HEIFERS—15 BULLS

Plan to attend. Write for catalog. Special prices on Bulls in order to make room for this sale.

C. H. Prescott & Sons

Office at Tawas City, Mich. Herd at Prescott, Mich.

GLADWIN COUNTY SHORTHORN BREEDERS offer the best in beef and milk strains. All ages both sexes. W. S. HUBER, Sec'y, Gladwin, Mich.

MILKING STRAIN SHORTHORNS

Registered stock of all ages and both sex. Herd headed by the imported bull, Kelmcoot Viscount 25th, 648.563. Prices reasonable.

LUNDY BROS., R4, Davison, Mich.

FOR SALE SHORTHORNS—BOTH MALE AND FEMALE, 2 nice young cows, 2 young bulls fit for service. Best of breeding.

JOHN SCHANNENK, Jr., Cheboygan, Mich.

FOR SALE—TWO REG. SHORTHORN BULLS one year old. Ready for service. Tuberculin tested. Sired by Orange Goods (795761). Dams giving 40 and 45 lbs. of milk per day.

M. B. HALLSTED, Orion, Mich. (P)

ANGUS



ACHIEVEMENT

The reward of pure breeding; the accomplishment of quality. Success has again contributed more laurels to the already remarkable record of

EDGAR OF DALMENY

THE SIRE SUPREME

At the International Live Stock Exposition, where gathers each year the elite of North American Cattle to compete for the coveted awards, five more honors have been bestowed upon the "set" of Edgar of Dalmeny.

You too may share these honors. A bull by this world famous sire will prove a most valuable asset to your herd.

Write us today.

WILDWOOD FARMS

ORION, MICHIGAN.

W. E. Scripps, Prop. Sidney Smith, Mgr.

ATTENTION—SEVEN BULL CALVES ABOUT 12 mo. old at \$50 each if taken before May 15. DR. G. B. MARTIN & SON, North Street, Mich.

REGISTERED ABERDEEN-ANGUS-BULLS. Heifers and cows for sale. Priced to move. Inspection invited.

RUSSELL BROS., Merrill, Michigan

RED POLLED

TWO YOUNG RED POLLED BULLS FOR sale. Sired by Coxy Ellis Laddie. He took the prize at six State Fairs.

PIERCE BROS., Eaton Rapids, Mich., R 4

FOR SALE—REGISTERED RED POLLED Bull 8 years old, a grand individual and stock getter. Price \$100. H. P. BARRINGER, Armade, Mich.

MACK'S NOTES

The Lenawee County Fair Association are constructing a building for dairy cattle on the fair grounds, at Adrian, which will accommodate 300 head of cattle; the foundation and first story is to be concrete and the upper part frame with a shingle roof.

Some slight changes in the rules, governing the fat steer exhibit at the Michigan State Fair, were made by the premium committee at its recent meeting at Detroit; as amended, the rules provide that no animals owned by exhibitors outside the state can be shown in fat steer classes. In the carload division, eight prizes will be awarded. The first prize will be \$200; the second, \$175; the third, \$150; the fourth, \$125; the fifth \$100; the sixth, \$75 and the other two prizes \$50 each.

There is now a fair prospect that the "whitefaces" will have the carload exhibit all to themselves at the coming fair; at least, no shorthorns or Angus prospects have, as yet, been heard from. E. A. Beamer, of Blissfield, the feeder who won first prize in the carload division, last year, is preparing another load this year; there are several loads of Hereford calves in Old Lenawee that will probably make a bid for the honors in the carload classes. There is good reason to believe that Mr. B. will have much more active competition this year.

Promotion work, in connection with the proposed cheese factory to be erected for the Michigan Milk Producers' Association, at Adrian, is going rapidly forward and the outlook now seems to indicate that all of the stock will be sold and the construction of the building will be begun before June 1. A cheesemaker has been hired and other necessary arrangements have been made.

There is a growing opinion, among Michigan farmers, that some arrangement should be made by which the hog breeders and feeders of this state will be permitted to vaccinate their own hogs. Licenses, to do this work, are issued to the farmers of many western states, the only requirements being that candidates take a special course of training for the work and successfully pass an examination covering the essential details of the undertaking.

The American Jersey Cattle Club announces that Fauvic's Star, owned by A. V. Barnes, New Canaan, Conn., has established a new world's record for Jerseys by producing 20,616 pounds of milk and 1,006 pounds of butterfat in a year. Her sire is Fauvic's Prince, which has begot many famous producers.

The agricultural appropriation bill, as passed by the senate on April 13, carries \$70,000 for the establishment by the Federal Department of Agriculture of a live stock production service monthly report, like the present crop report system of the department.

Superintendent Alexander Minty of Woodcote Stock Farm, owned by Dwight Cutler, Ionia, Mich., reports the recent sale of two "Trojan-Erica" Aberdeen-Angus heifers and a bull of the same family to Lee Kerton, Clarkston, Mich., to Prof. H. H. Williams of the University of North Carolina the imported "Enchantress" bull direct, and to Lewis Ramsey, Lexington, Ky., the "Black-cap" bull calf Black Quester of Woodcote.

At a recent meeting of the directors of the Percheron Society of France, the annual show of the society was arranged for September, to be held at La Ferté-Bernard. This date is late for American importers, as it is almost impossible, in the intervening period to prepare horses, bought at that show, for the International in Chicago.

THE MICHIGAN CONSIGNMENT TO KANSAS CITY NATIONAL

(Continued from page 3)

The Traverse City State Hospital herd will be represented by one heifer and a young bull, both sired by Echo Sylvia King Model, No. 266-177, the May Echo Sylvia bull now at the head of the herd and whose three nearest dams average above 38 pounds.

The heifer, Traverse Echo Butter Girl, No. 679020, is a fine, well-grown specimen of the type and capacity that has made the Traverse City State Hospital herd famous the country over. Her dam has a 25-lb. 3 1-2-year-old record and promises to do much better at maturity.

The young bull, born in October, is a wonderful calf. He has great width of back and hind quarters, with an excellent top line and a square rump, and looks like a real bull. His dam has a seven-day record of 615 pounds of milk and 29.59 pounds of butter at six years, with a 305-day record as a five-year-old of 932.6 pounds of butter from 20078.7 pounds of milk.

These two calves will represent this great herd of 180 head, one of the really remarkable herds of the country, for last year the average production of eighty-two cows and heifers of all ages milked during the year was above 14,600 pounds of milk in 365 days.

R. B. McPHERSON

Consignment Sale

Howell, Michigan, May 20, 1922

75—Head of Quality Holsteins—75

- | | |
|---|--|
| 3—1000 lb. cows. | 10—Yearly record cows and heifers — 9 daughters of yearly record cows. |
| 4—30 lb. cows—2 above 32 lbs. | 38—Daughters of 30 to 38 lbs. bulls. |
| 4—Daughters of 30 lb. cows. | 7—Daughters of a 1344 lb. bull. |
| 4—30 lb. bulls—4 bulls with S. O. dams. | |

Now is the time to buy them—and here is the place to buy foundation blood with both short and long time record backing.

6 to 9 months bankable notes will be accepted at option of consignors. Bring your Bank references.

Send for your Catalog—Ready May 10th.

R. BRUCE McPHERSON : : : HOWELL, MICHIGAN



He lost enough cream every six months to pay for a DE LAVAL

"I had a cream separator that I had been using and thought was all right. I have five cows and had been selling cream and feeding skim-milk to hogs as fast as separated. A few days ago I sold the hogs and left the skimmed milk in the can. The next day I noticed cream on it. I was so surprised that I skimmed it off by hand, churned it and made one pound and six ounces of butter.

"It took little figuring to show how much cream I had been feeding my hogs each day. I figured I had paid the price of a No. 15 De Laval every six months."

This letter is typical of many letters we receive.

Perhaps this same thing is happening to you and you don't realize it. If you are using an old or partly worn-out separator, or are skimming by hand, undoubtedly you are wasting enough cream to pay for a De Laval in a short time. The waste of cream occurring every day is criminal—more than enough to pay for the entire output of the De Laval Factory.

Most any kind of cream separator will do fairly good work the first few months, when it is new. But if it is cheaply made, after the first few months your trouble will begin.

And the worst of your experience with such a machine will not be the fact that it wears out quickly or that it runs hard, or that you are piling up repair expenses, but that you are losing a lot of butter-fat.

Why take chances at all when you can get a De Laval which has won hundreds of prizes, thousands of contests, and is used by millions. Experience has proved that it is the best cream separator to buy, and in the long run the cheapest.

Order your De Laval now and let it begin saving cream right away. See the local De Laval Agent, or if you don't know him, write to nearest office.

The De Laval Separator Co.

New York Chicago
165 Broadway 29 E. Madison St.
San Francisco
61 Beale St

Sooner or later you will use a
De Laval
Cream Separator and Milker

SHORT-HORN HERD OF WHICH ALL MICHIGAN IS PROUD

(Continued from page 5)

herd on his Glenwild plantation in Mississippi.

Sterling Supreme has had an enviable record in the show ring, winning first as a junior calf at the Missouri state fair and second at the American Royal at Kansas City; as a two-year-old, he won first prize and senior championship at the Michigan State Fair and fourth place at the International, of 1919.

While we frequently hear it said that the bull is three-quarters of the herd, the Prescott firm is not depending on bulls, alone, for they have one of the finest herds of pure-bred cows the writer has ever seen; after studying the lineage of these wonderful producers, the visitor no longer marvels at what he has seen. The familiar names of Duthie, Cruickshank, Bruce, Marr, Willis and Shepherd are to be seen frequently, when studying the pedigrees of the Prescott cattle; this firm is safe in assuming that breeding and individuality, that was good enough for the Shorthorn breeders of the old world, is quite good enough for them and for all who in the future, may see fit to purchase their cattle.

A royal welcome and a delightful experience awaits the inhabitants of Michigan and neighboring states who love the fellowship of good cattle and the companionship of a constructive breeder. George A. Prescott, Jr., who directs the agricultural and breeding activities of Richland Farms, is never so happy as when he is showing his Shorthorns and explaining the system of selection and the methods of cross-breeding which have brought this herd to its present state of perfection.

Since the above was written, word has come to this office of the death of Sterling Supreme. The passing of this wonderful bull must be regarded, not only as a great loss to the Richland Farms breeding enterprise, but to the Shorthorn interests of the entire country.

VETERINARY DEPARTMENT

DR. W. AUSTIN EWALT, EDITOR

TUBERCULIN TEST

Will you please explain how to read the second tuberculin test where Kocho Old Tuberculin triple strength is used. Also how soon can this be used after first test?—E. J. P. Dowagiac, Mich.

The bacillus of tuberculosis was discovered by Robert Koch in 1882 and I doubt if any of his tuberculin is on the market at the present time. If it is I would advise you to use something stronger than triple strength. If the first test to which you refer was applied at that time I believe you would be safe in applying the second test at your earliest convenience. The tuberculin test came into existence thru the most careful and thorough scientific experimentation. In practice it is applied by first taking the temperature of the animal to be tested, at intervals of two hours, six of these temperatures should be taken to thoroughly establish the normal temperature of the body under the ordinary conditions of life. The proper dose of tuberculin is then injected under the skin with a hypodermic syringe. The injection is generally made late in the evening, and the temperature is taken every two hours the following day, beginning early in the morning and continuing until late in the evening, if the fullest information is desired. If the animal reacts the rise of temperature begins about eight hours after the tuberculin is injected, reaches its greatest height from the sixteenth to the twentieth hours, and then gradually declines, reaching normal again by the twenty-eighth hour, and often sooner. Cattle should be tested twice a year if a clean herd is appreciated.

The Irish Touch

Lady—"Really, sir, I don't like to deprive you of your comfortable seat."
Pat—"Be the powers, ma'am, it wor comfortable no longer when Oi saw ye standin'."

Proved

"When I sees a man playin' checkers three or four hours every afternoon," said Uncle Eben, "I don't need no credit men's agency to tell me he don't have to pay no surtax on his income."

AYRSHIRES

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

GUERNSEYS

GUERNSEYS

OF MAY ROSE AND GLENWOOD BREEDING. No abortion, clean federal inspected. Their sires dam made 19,460.20 milk, 909.05 fat. Their mother's sire's dam made 15,109.10 milk, 778.80 fat. Can spare 3 cows, 2 heifers and a beautiful lot of young bulls.
T. V. HICKS, R 1, Battle Creek, Mich.

FOR SALE GUERNSEY BULLS READY FOR service and bull calves carrying 1/2 of blood of my friend Norman's Missaukee Red Rose, World Champion G. G. Sired by her sire. Dams finishing splendid A. R. Records.
A. M. SMITH, Lake City, Mich.

REGISTERED GUERNSEY BULLS

ready for service. Also yearling heifers. Farmers prices.
Dr. W. B. Baker, 4800 Fort St. W. Detroit, Mich

HEREFORDS

SOTHAM'S EARLIRIPE HEREFORD BEEF CONTRACT

Will insure Your Getting Highest Possible Prices For Young Hereford Bees. Out of the proceeds of such beves you pay no Commissions, Yard or Feed Charges. Produce quality beef at the minimum cost and go away with speculation in feeders. Raise your own and be assured of receiving the highest possible price. This "Sotham's Earlrripe Hereford Beef Contract" guarantees you. "Earlrripe Hereford Beef" producers in over fifteen Michigan Counties. "Earlrripe Hereford Beef" is cut in many of Detroit's finest markets. Write for further information or investigate personally.

T. F. B. SOTHAM & SONS
(Cattle Business Established in 1895)
SAINT CLAIR : MICHIGAN

FOR SALE, Choice Hereford Bulls, bargain prices. A. L. SMITH, Bickford, Mich. Farm eight miles south of Marshall, Mich. (P)

JERSEYS

FOR SALE—TEN REGISTERED JERSEY Heifers from three months to one and one-half years old. Sophia's Tormentor breeding. Herd under Federal and State supervision. A. H. DONALDSON, Fenton, Mich.

GLADWIN COUNTY PURE BRED LIVESTOCK ASSOCIATION. Hereford, Shorthorn, Jersey and Holstein cattle; Duroc-Jersey, Poland China and Hampshire hogs; Oxford, Shropshire and Hampshire sheep. A place to buy good breeding stock at reasonable prices.
FRED B. SWINEHART O. E. ATWATER
President Secretary
Gladwin, Mich.

SWINE

POLAND CHINA

FOR SALE, REGISTERED BIG TYPE POLAND CHINA Spring pigs. Sired by Pankow's Monster, the offspring of Dishier's Monster and named by Defender and Master's offspring. Can furnish trios. Order early, prices reasonable. Chestnut Dale Jersey Farm, Edward Pankow Montague, Mich., R 1.

L. T. P. C. \$15-\$20-\$25

Spring pigs at above prices. Top fall gilts bred for summer farrow, priced right.

HART & CLINE
Address F. T. Hart, St. Louis, Mich

Big Type P. O. Boar Pigs, they can't be beat in Michigan. Sired by Big Bob Mastoden and Peter A. Pan a son 1,075 Peter Pan. C. E. GARNANT, Eaton Rapids, Mich.

Attention! Farmers and Breeders

As we have had numerous inquiries regarding the use of our boars on brood sows, outside of our own, we wish to announce that we have reserved three boars of the following breeds for this purpose:

Berkshire, Poland China, O. I. C.

These pure-blood, registered boars are from prize winning stock and are the correct type.

DETROIT CREAMERY CO., HOG FARM
Mt. Clemens, Mich. Located one half mile west of Gratiot on Nunneley Road.

FOR SALE, LARGE TYPE

POLAND CHINA

boar pigs. Sired by F's Chasman 391211, Michigan's 1920 Gr. Champion boar, and by Smooth Buster 395823, Michigan's 1920 1st Jr. Yearling Boar. Immune by double treatment. Priced to sell. Write or see them. Free livery to visitors.
A. A. FELDKAMP
Manchester, R. R. No. 2 Mich.

DUROCS

FOR SALE FINE GILTS DUE TO FARROW in April and May.
HARLEY FOOR & SONS
Gladwin, Mich., R 1.

HERE I AM AGAIN

FOR SALE—March and April Pigs, Reg. to buyer. Sired by Younged Model Orion and Orion Col. Dams. Farmers prices. Heavy boned type. Shipped C. O. D. Write for prices before buying.
V. LIDGARD, Hesperia, 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.

AM SELLING A GREAT OFFERING OF DUROC BRED SOWS AND GILTS

March 4th, mostly mated to Orion Giant Col., a son of Ohio Grand Champion. Get on mailing list for catalog.
W. C. TAYLOR, Milan, Mich.

PURE-BRED DUROC JERSEY HOGS

We usually have good boars and sows of all ages for sale. Reasonable prices.
LARRO RESEARCH FARM, Box A North End Detroit, Michigan.

BRED GILTS ALL SOLD—BOOKING ORDERS for spring pigs sired by Fannie's Joe Orion and Pathfinder Orion. Farmers' prices. H. E. LIVERMORE & SON, Romeo, Mich.

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

HILL CREST DUROCS—BRED SOWS ALL sold. A fine line of boars, weighing from 150 pounds up. Farm 4 miles south of Middleton, Gratiot Co. NEWTON & BLANK, Perrinton, Mich.

FOR SALE—SEPTEMBER GILTS—OPEN OR bred, sired by A. Model Orion King. Call or write.
CHAS. F. RICHARDSON, Blanchard, Mich.

DUROCS AM BOOKING ORDERS FOR March pigs, for May delivery. 12 to 15 dollars, registered. Satisfaction or money back.
B. E. KIES, Hillsdale, Mich.

THE FINEST DUROC JERSEY HOGS

in Michigan. Nearly 100 to choose from. Bred Sows, Gilts, Fall pigs, either sex. Write us your wants. Farmer prices.
SCHAEFFER BROS., Oxford, Mich., R 4.

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

HAMPSHIRE

HAMPSHIRE, A FEW GILTS TO OFFER. Place your order for spring pigs.
J. W. SNYDER, St. Johns, Mich.

O. I. C.

O I C's. LARGE WHITE, QUIET, PROLIFIC, easy feeders. Ours will please you. Choice Sow or Boar Pigs, wt. 50 lbs. \$15, Registered. Order at once. MAPLE VALLEY STOCK FARM, North Adams, Mich. (P)

BIG TYPE O I C PIGS 8 WEEKS OLD Guaranteed.
E. V. BILYEU, Powhatan, Ohio

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.

SHEEP

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.

PET STOCK

COLLIE PUPPIES

Write Dr. W. Austin Ewalt, Mt. Clemens, Mich. for thoroughbred pedigree Collie puppies; bred from farm trained stock that are natural heelers with plenty of grit. All Puppies guaranteed.

SILVERCREST KENNELS Offer For Sale Pure-bred Collie puppies; white also sable and white. Natural heelers. W. S. HUBER, Gladwin, Mich.

SHEPHERD PONIES

We have a few good Shepherd Ponies for sale; prices ranging from \$75.00 to \$100. Write
JOHN FARMER, R 2, Stockbridge, Mich.

HORSES

ESTABLISHED 1879

BELLS' PERCHERON & BELGIANS

The most complete selection in America of these popular breeds. International and state fair winners.

STALLIONS AND MARES

Write today.

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EVERY

BREEDER

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Advertisements inserted under this heading at 25 cents per line per issue. 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



DAY OLD CHICKS
HOMESTEAD FARMS
Michigan people: Here is something in your own state to interest you. Let us send you a description of our
PURE BREED PRACTICAL POULTRY
Here is an egg producing poultry stock such as the farmer poultry woman wants. It is proving out in actual eggs in the hands of the farmer poultry people who buy it.

White, Brown, and Buff Leghorns; Anconas; Black Minorcas; Barred, Buff and White Rocks; Rhode Island Reds; Wyandottes; Orpingtons. This stock is culled and bred on the plan of the state Agricultural College, and all the Hens in the Breeding Colonies are practical egg-producing Hens.

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

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

STATE FARMS ASSOCIATION
Box 247, Kalamazoo, Mich.
Top Quality Chicks, Spanish, Minorcas, Rocks, Reds, Wyandottes and Orpingtons.
TYRONE POULTRY FARM, Fenton, Mich.

R. C. BR. LEGHORN EGGS \$1.50 for 15; \$8.00 per 100. Pekin duck \$1.50 for 8. W. Chinese goose eggs 40c each. **MRS. CLAUDIA BETTS, Hillsdale, Mich.**

PLYMOUTH ROCK
"ARISTOCRAT"
BARRER PLYMOUTH ROCKS
Best strain in America. Foundation pen headed by pen brother of Holterman's Prince, Narrows IV. Bargain price to W. B. F. readers only \$3.00 for setting of 15, postpaid. Satisfaction guaranteed.

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Saginaw, W. S., Mich.
R. 4

BARRER ROCK EGGS for hatching. Norman heavy laying, prize winning strain. **MRS. JESSIE B. DEAN, Mason, Mich., R. 1.**

KNIGHTS WHITE ROCKS
Baby Chicks \$2.00 per 100; Eggs \$1.50 per 15; \$8.00 per 100. Bred to lay.
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WHITE ROCKS. VERY HEAVY LAYERS. Quality that wins. Hatchable eggs, 15, \$1.50; 50, \$3.75; 100, \$7.00. Satisfaction guaranteed. **MRS. FLORENCE HOWARD, Petersburg, Mich. (P)**

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BUFF ROCK EGGS By Big 10 lb. males, solid color, National winners and Hogan tested heavy layers, bred for 30 years.
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S. C. BUFF LEGHORN BABY CHICKS. We have just the one breed.
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AMERICAN ROSE COMB WHITE LEGHORNS Cockerels and eggs. Reasonable.
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LEGHORNS
Single Comb Buff Leghorns, 1000 Chicks for April first delivery. It will cost you just 2 cents to find out my plan how to get 10 Baby Chicks FREE.
LAPHAM FARMS, Pinckney, Mich.

POUND PULLETS (S. C. W. L.) HATCHED MARCH 20th. \$1.20 for May 15th delivery. Finest lot we ever raised. No sickness. No crowding. Satisfaction or money back. Will lay in August and all through the fall season when eggs are the highest.
MORSE LEGHORN FARM, Belding, Michigan

WYANDOTTE
Heimbach's White Wyandottes. Exhibition and utility Heavy layers. R. C. Rhode Island Reds, Baby Chicks, Hatching eggs, Catalog. C. W. Heimbach, Big Rapids, Mich.

RHODE ISLAND REDS
WHITTAKER'S RED CHICKS Both Combs. Blood tested for white diarrhoea. Michigan's greatest color and egg strain. Catalog free. Interlakes Farm, Box 4, Lawrence, Mich.

ROSE COMB RHODE ISLAND REDS. Hatching Eggs reduced to \$1 per setting. **MRS. ALBERT HARWOOD, R. 4, Charlevoix, Mich. (P)**

SINGLE COMB RHODE ISLAND WHITES, good matings, eggs \$2.00 per 15. Also chicks and stock. **JNO. A. HARTGERINK, Zeeland, Mich.**

RHODE ISLAND REDS, TOMPKINS STRAIN, Hatching eggs and baby chicks. Eggs per hundred, April \$10; May, June, July \$8. Chicks twice the price of eggs. Both combs. **WM. H. FROHM, New Baltimore, Mich., R1.**

ANCONAS
S. C. ANCONAS CONTAIN BLOOD WORLD Famous Sheppard Strain. \$1.50 per 15; \$2.50 per 30; \$6.00 per 100.
HERMAN POHL, Fowler, Mich.

3000 EARLY APRIL HATCHED FULLY MATURED ANCONAS.
BUCKEYE ANCONA FARM
NEW LONDON, OHIO.
Heavy layers and show birds, none better. Reasonable prices and quality stock is our motto. Can furnish winners for any show. Ask for our late winnings at Columbus, O., Louisville, Ky., Cleveland, O., Pittsburg, Pa., Hagerstown and Cumberland, Md. Cks. Hens, Ckls. Pul. and Mated Pens always for sale. Eggs and Baby Chicks in season. 100,000 Incubator capacity. Write us and get the best.

ORPINGTONS
Buff Orpingtons—Cook & Byer's Strain, Madison Square winners. Eggs, Pens 1 and 2 \$3. Pens 3 and 4 \$2. A. J. Brownbaker, Elsie, Mich. (P)

ORPINGTONS BUFF, WHITE, BLACK
Hatching eggs in season.
AUGUST GRABOWSKIE
Merrill, Mich., Route 4, Box 41.

HATCHING EGGS
LISTEN DO YOU WAIT HATCHING EGGS from the world's greatest layers. A postal brings booklet from
THE KLONDYKE POULTRY YARDS
Millington, Mich.

EGGS FOR HATCHING—BARRON STRAIN. S. C. White Leghorns, bred-to-lay. \$1.50 for 15; \$6.50 for 100; prepaid.
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EGGS \$1 SETTING, Parcel Post Paid. Thor-oughbreds. Barred Rocks, White Rocks, Buff Rocks, White Wyandottes, Anconas, Buff Minorcas, White Leghorns, Brown Leghorns, Rhode Island Reds, Buff Orpingtons. **PHILIP CONDON, West Chester, Ohio.**

S. C. RHODE ISLAND RED EGGS. \$1.25 per setting. Postpaid. **MRS. FRANK THILL, Fayette, Mich. (P)**

WHITE ROCK EGGS FOR HATCHING Blue Ribbon winners. Write for prices and information. **Mrs. Roy Oakes, Hartford, Mich.**

FOR SALE—RINGLET STRAIN BARRER Rock eggs, 15 for \$1.00. **MRS. O. TERPEN-ING, R. 1, Ithaca, Mich. (P)**

RINGLET BARRER ROCK EGGS FOR HATCH-ING—15, \$1.50; 100, \$8.00; prepaid. **MRS. GEO. WEAVER, Fife Lake, Mich.**

QUALITY BARRER ROCK EGGS—15, \$1.50; 50, \$4.00. Park Strain. Postpaid; guaranteed. **M. J. & R. A. WILSON, R. 2, Kingsley, Mich.**

SICILIAN BUTTERCUP EGGS—\$1.25 for 15. Good layers, of large white eggs, good table fowl. Also R. 1. Red's eggs for sale, same price. **L. K. PRAUSE, Maple City, R. 3, Mich. (P)**

Silver Spangled Hamburg Eggs \$2.00 per 15, prepaid.
EVERETT ROWE, R. 2, Grass Lake, Mich. (P)

GOLDEN LACED WYANDOTTE EGGS FOR hatching from prize winning stock. \$2.50 per 15. **FRANK J. NIQUE, Thomas, Mich.**

SILVER SPANGLED HAMBURG EGGS BY the 100 \$8.00; one setting \$1.75. Wonderful layers; won first money at State Fair, 1919, and second money at State Fair, 1921. Great for-ewards and very handsome. **MRS. G. A. PROCTOR, Vassar, Mich.**

BABY CHICKS
CHICKS WITH PEP
If you want chicks that pay you we have them. Ours have the egg-laying habit. From show winning strains and egg strains as high as 296. Leghorns, Rocks, Reds, Anconas, Wyandottes, Minorcas, Orpingtons, Safe delivery. Prepaid. Prices right. Free catalog
HOLGATE CHICK HATCHERY,
Box B, Holgate, Ohio.

CHICKS
Thorough-bred varieties of Tom Barron English White Leghorns, S. C. R. 1. Reds, Parks Barred Rocks. Strong and healthy chicks from tested heavy producing stock, correct in plumage and color as well as being excellent layers. 100 per cent live delivery guaranteed. Order your May and June chicks now at my new low prices. interesting catalogue free. Importer.

BRUMMER'S POULTRY FARM
Box 28 Holland, Mich.
CHIX FROM TWELVE LEADING VARIETIES of heavy layers on free range. Reasonable prices. Get catalog and order NOW.
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BABY CHICKS. ALL STANDARD VARIETIES at reduced prices for June delivery. Satisfaction guaranteed. \$1.00 per cent live delivery. Send for prices. **HOMER HATCHERY, Homer, Mich. (P)**

BABY CHICKS, 20 breeds, 11c up. Pure bred stock. Prices on request. English Leghorns too. **MIDLAND HATCHERY, Midland, Mich. (P)**

WHY NOT
buy your chicks from egg-bred stock?
ANCONAS & WHITE LEGHORNS
Come and see our stock if you can or send for full description and prices.
QUALITY HATCHERY, Box A11, Zeeland, Mich.

BABY CHICKS
S. C. Buff Leghorns, one of the largest flocks in Michigan. My price is in reach of all, only \$1.50 per hundred. Detroit winners, none better.
LAPHAM FARMS, Pinckney, Mich.

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Build up your flock with pure bred chicks that lay early and often, best quality. Leghorns, Rocks, Reds, Wyandottes, Anconas, Minorcas, Orpingtons, Silver Spangled Hamburg Eggs \$2.00 per setting. We deliver at your door. Get our price list and free catalog.

J. C. PHILPOTT
R. 1, Box 74 Port Huron, Mich.

BABY CHICK PRICES SMASHED

ENGLISH AND AMERICAN LEGHORNS now \$12.50 delivered. Anconas \$15.00. Special prices on larger shipments. Not ordinary stock but genuine egg pedigree stock. Our quality can't be beat at twice the price. Our free catalog will prove it.

PROGRESSIVE POULTRY FARM

HOLLAND : BOX L MICHIGAN
DAY OLD CHICKS

Now is the time to order your chicks. You want the best and at the right price. We supply "efficiency" chicks—Rocks, Leghorns, Wyandottes, Leghorns, and at pre-war prices. Quality can't be beat. We ship them by parcel post, prepaid, and guarantee delivery. You take no chance. Send for our catalogue for full information.

CLYDE CHICK HATCHERY, Box 5M, Clyde, O.

EXTRA GOOD CHICKS

Plan now on more eggs next winter. Order chicks from pure bred record layers. Tom Barron White Leghorns, Brown Leghorns, and Anconas. Post-paid anywhere. Catalog free. Ask for May and June prices.

QUEEN HATCHERY

ZECLAND, MICHIGAN

NABOB JUST-RITE Baby Chicks

1 1/2 MILLION CHICKS Postage PAID 95 per cent live arrival guaranteed. **MONTH'S FEED FREE** with each order. A hatch every week all year. 40 breeds chicks 4 Breeds Ducklings Select and Exhibition Grades. Catalogue Free, stamps appreciated.
NABOB HATCHERIES, Dept. 30, Gambler, O.

BABY CHICKS

200,000 for 1922. Shepards Anconas, English type White Leghorns and Brown Leghorns and Barred Rocks. Why pay two prices when you can buy direct? Our chicks are from strong vigorous flocks of fine quality and excellent layers. Chicks are sent prepaid with 100 per cent live arrival guaranteed. Order now or send for free catalogue.
KNOLLS HATCHERY, Holland Mich R12

BABY CHICKS

BARRON STRAIN
SINGLE COMB WHITE LEGHORNS. Also heavy laying S. C. Brown Leghorns. Chicks for May delivery, \$12 per hundred; Rhode Island Reds \$14 per hundred.

100 PER CENT LIVE DELIVERY GUARANTEED BY PREPAID AND INSURED PARCEL POST. Order direct from this ad and save time. Circular Free.

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Box 500 Holland, Mich.

Crystal Poultry Farms Choice Baby Chicks. From best heavy laying, standard bred stock. 30 leading breeds. Thousands of satisfied customers. Reasonable prices. Circular free.
CRYSTAL POULTRY FARMS
7910 W. Franklin Ave., Cleveland, O.

CHICKS THAT SATISFY

Our 11th year. Brown Leghorns English Type White Leghorns GREAT LAYERS Large White Eggs 100 per cent safe arrival guaranteed. Get our prices at once. We save you money.

Large instructive catalogue free.

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CHICKS FROM MICHIGAN'S OLD RELIABLE HATCHERY

White Leghorns, Anconas, Barred and White Rocks and R. 1. Reds, the popular laying strains. High record, expert Hogan tested flocks only. Preference given early orders. Chicks delivered by insured Parcel Post, and full count strong live chicks guaranteed. 14th season. Fine instructive poultry catalog and price list free. Place your orders now for May and June delivery. We want to show you that we deserve your business. Write

HOLLAND HATCHERY, R. 7, Holland, Mich.

FEEDING OF BABY CHICKS

(Continued from page 16)

meat scrap or high grade tankage should be used in the mash to supply the animal protein. Coarser grains such as cracked corn and wheat can be substituted for the chick feed just as quickly as the chicks can handle it. If labor is scarce the grain can be hopper fed after the chicks are six weeks old. Free range with plenty of green food and shade produces the most economical growth.

TENTH WEEK TO MATURITY—

Segregate broilers and hopper feed both the scratch feed and dry mash. Scratchfeed: 50 per cent wheat, 50 per cent cracked corn. Dry mash: 25 per cent bran, 20 per cent middlings, 20 per cent ground oats, 10 per cent meat scrap, 5 per cent buttermilk. Grit and skim milk should be available.—E. C. Foreman, Associate Professor Department of Poultry Husbandry, M. A. C.

IS BOVINE TUBERCULOSIS A MENACE TO HUMAN LIFE?

(Continued from page 4)

cow (granting that the milk will communicate the disease) is practically assured because man is unable to detect by any of the senses of smell, taste or sight whether the milk be pure or impure. In other words God has placed certain warning signals about diseased meat which are usually apparent to man but He has provided no such safeguard about the milk of these animals which is today man's most valuable food. On the contrary a large per cent of reacting animals give no outward signs that they are affected. It is often only by delicate tests which are by no means infallible that the presence of the disease can be detected. From an entirely practical point of view this appears to be the strongest argument against the presumption of a close relationship between the two germs.

State Health Department Takes Exception

Dr. Geo. H. Ramsey, state deputy commissioner of health, has also written us the following informative criticism of our editorial:

"The following answers to your editorial in the Michigan Business Farmer of April 8-15, 1922, are submitted:

"Does the suckling child take the disease from a tubercular mother?"

"The affirmative answer to this question is a well established fact. Medical literature abounds in cases, records and statistics that furnish absolute proof. Sir William Osler, for example, reports a hospital where 21 per cent of deaths in the first year of life were due to tuberculosis. Almost no physician has escaped utterly hopeless experience of being confronted by a consumptive baby for whom he knows there is no help.

"Does the milk from tubercular cows always or even frequently or ever contain the germs of human tuberculosis?"

"From 10 per cent to 30 per cent of milk samples from unsupervised supplies—that is, from untested herds—have been found to contain the germs of tuberculosis. Dr. Wm. H. Park in his 'Text-book of Bacteriology' makes the following statement, 'Milk serves as a conveyor of infection whether it be the milk of mothers or the milk of cows. It has been proved beyond question that not only the milk of tuberculous cattle which show no appreciable udder disease, but also those in which tuberculosis has been only detected by the tuberculin test, frequently contains the bacilli (germs).'"

"Is the bovine germ the same as the human germ?"

"The bovine germ and the human germ belong to the same family. They are cousins, but not identical. They can be easily differentiated in the laboratory. The research work in this country which clinched this relationship was done by Park and Krumwiede and published in Vols. XXXIII, XXV and XXVII of the Journal of Medical Research.

"Is there any possibility that science has erred?"

This question is best answered by the simple fact that the tuberculosis death rate in Michigan has dropped from 94.6 per 100,000 population to 71.6 per 100,000 population during the past ten years, during the time that active campaigns have been fought against tuberculosis in cattle and in the human being. The only possible reply to anyone who doubts the truth or the practical importance of the laboratory workers' results is a very pointed and impolite question: Would you be willing to have your own baby inoculated with a laboratory culture of bovine tuberculosis germs?"—George H. Ramsey, M. D. Deputy Commissioner of Health, Lansing, Mich.

Our reply to Dr. Ramsey will suffice, we hope, to dispel any false impressions which our readers may have formed concerning our motives and views. It is as follows:

"I am very glad to have your letter of April 25th enclosing an answer to the editorial published in the April 15th issue of the Michigan Business Farmer on bovine tuberculosis.

"While the facts you have submitted are impressive they are not entirely conclusive. I cannot understand, Dr. Ramsey, why if medical science has estab-

BABY CHIX

The Old Reliable Breeds
S. B. White Leghorns
English and American Strains

Barred Rocks Anconas
S. C. Brown Leghorns

Here we are, just a few hours from your door, with baby chicks from the best breeds. Our growth from one small incubator to 22,000 egg capacity has been steady, and denotes honest dealing. Get our prices on chicks from our healthy, free range, heavy laying stock. Send today for handsome catalog in colors.
CITY LIMITS HATCHERY & POULTRY YARD, Route 5, Box 11, Holland, Mich.

DAY OLD CHICKS

Order your Baby Chicks now from selected heavy laying strain single comb White Leghorns, English strain Brown Leghorns, Anconas and Reds. Send for price list.
HILLCREST HATCHERY, R. 2, Holland, Mich.

BABY CHICKS

FROM SELECT, HEAVY LAYING HENS IN S. C. WHITE AND BROWN LEGHORNS, BLACK MINORCAS, ANCONAS, BARRON ROCKS AND RHODE IS. REDS
Prices: S. C. White and Brown Leghorns, \$12 per 100; S. C. Anconas, \$12 per 100; S. C. Barron Rocks, Rhode Is. Reds and Black Minorcas, \$14 per 100. Postpaid to your door and full live count GUARANTEED. Bank Reference. Order NOW right from this ad. and save time. Instructive Circular Free.
COLONIAL POULTRY FARMS
Zeeland, Mich.

BABY CHICKS

FULL LIVE COUNT GUARANTEED

From hens of Heavy Laying Strains S. C. White and Brown Leghorns and Anconas, \$6.00; 100 for \$12.50; 500 for \$57.50. Barred Rocks and S. C. R. I. Reds, 50 for \$7.50; 100 for \$15; 500 for \$72.50. Prepaid Parcel Post right to your door. Order now from this ad.
WINSTROM POULTRY FARM & HATCHERY
Zeeland, Mich.

Day Old Chicks, Standard Varieties. Make your selections. Catalogue and price list now ready.
H. H. PIERCE, Jerome, Mich.

Guaranteed Chicks

Strong, healthy, day old chicks from prize winning heavy laying S. C. Anconas. Prize winners at the big shows and leading Egg contests. Chicks and Eggs from prize pens and carefully mated heavy laying flocks. Also chicks from record laying flocks of WHITE or BROWN LEGHORNS and BARRED ROCKS. Postpaid anywhere. Catalog and price list free.
MONARCH POULTRY FARMS
Zeeland, Mich.

BABY CHIX, MAY AND JUNE DELIVERY.
Prices: Barred Plymouth Rocks, R. I. Reds, Black Minorcas, White Leghorns or Anconas, 25 for \$5.50; 50 for \$10.00 or 100 for \$18.00 prepaid. 100 per cent live delivery guaranteed. Our 12th year producing chick that please. July price 2c per chick less. GREEN LAWN POULTRY FARM, R. 3, Fenton, Mich.



BABY CHICKS

WE HAVE THE BEST LAYING BREEDS ON EARTH
Barron English White Leghorns, also American White Leghorns, S. C. Brown Leghorns and Anconas, 25,000 large strong super-hatched chicks per week from Hogan tested flocks culled out semi-annually by our poultry experts.

17 YEARS OF CAREFUL BREEDING FOR EGG PRODUCTION
You get the advantage of 17 years of careful breeding which brought our flocks up to their present high standing.
Our wonderful winter layers are headed by large, vigorous and pedigreed sired males of exceptional quality.

THOUSANDS OF SATISFIED CUSTOMERS MAKE BIG MONEY
Mr. F. L. Hess, Chicago, Ill., writes, "I averaged 112 eggs a day from 140 of your pullets and sold \$158 worth of eggs in February."
Mrs. Wyttenbach, Amherst, Ohio, writes, "I sold \$357.30 worth of eggs in two months from 200 pullets of your stock."

RAISE GOOD STOCK AND REAP A GOLDEN HARVEST
Intelligent chick buyers of today take no chances with ordinary stock. Our enormous output enables us to sell these money makers at a price that positively cannot be equaled.

WE SHIP SOME 400,000 CHICKS EACH SEASON
We ship by PARCELS POST, PREPAID, and guarantee 100 per cent live delivery. Send for our catalogue and prices today.

WYNGARDEN HATCHERY, Box B, Zeeland, Mich.



BABY CHICKS

FROM
PURE TOM BARRON
English White Leghorns

PEDIGREED MALES HEAD OUR FLOCKS

Greatest layers known—All on free range—Bred for heavy egg production. Buy the best and make a success—Write today.

Also heavy laying Brown Leghorns and Anconas—All chicks sent P. P. Prepaid and Live Arrival guaranteed—SEND FOR OUR FREE CATALOGUE TODAY

SUPERIOR FARMS AND HATCHERY, Box 2052, Zeeland, Mich.

ished beyond the shadow of a doubt the danger of bovine tuberculosis to the human race, there should not be federal and state laws compelling the testing of all cattle and the slaughter of reactors as soon as it would be physically possible to perform the work. Surely there is no justification from any standpoint for pursuing the dilatory and haphazard methods in eradicating the disease which are employed under the present optional laws. If bovine tuberculosis is a menace to the human race the war against it should be sharp, intensive and all eradicated. The entire financial resources of the states and the nation should be at the disposal of the health authorities to destroy every last vestige of the disease. The fact that any less effort is being employed leaves many a man in doubt as to whether medical science is absolutely convinced of the relation between bovine and human tuberculosis and the extent of the danger of bovine tuberculosis to human beings.

"I trust that I have made my point clear, Dr. Ramsey. I want to positively assure you that the Business Farmer desires to co-operate in any measure aimed to decrease that dreaded disease tuberculosis and to improve the health of humanity in general. Your communication will be published in the next issue of the Business Farmer and if you have any further thoughts to offer upon the subject I shall be glad to receive them."

When human life is in danger, economic arguments are brutal. If medical science can say to a certainty that there is real danger in drinking milk from tubercular cows then every agency in the United States should combine to stamp out the disease, and any person who essayed to obstruct the work of eradication should be considered as a traitor to humanity. If there is no question about it at all, let's have a law in Michigan compelling every owner of a cow to submit her to test. Let us appropriate cheerfully whatever sum of money is necessary to perform the work. Let's make MICHIGAN FREE OF BOVINE TUBERCULOSIS, not ten years hence, but next year. The lives of our children are too precious to take the chance that they may escape it.

DAY OLD CHICKS

From the heart of Michigan's Baby Chick Industry section. The two heaviest egg breeds, Leghorns and Anconas. Send for catalog.

JAMESTOWN HATCHERY
JAMESTOWN, MICHIGAN

The 'Old Reliable' OHIO HATCHERY

which has been in the business TWENTY-TWO YEARS can supply you with the best chicks from all leading varieties and at reasonable prices. Get our Free Catalog NOW before you order Chicks elsewhere. 100 per cent Live Delivery Guaranteed. To your door by Prepaid Parcel Post.
THE UHL HATCHERY, Box 502
New Washington, Ohio

BUSINESS FARMERS' EXCHANGE

50 A WORD PER ISSUE—3 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, Michigan.

FARMS & LANDS

68 ACRE FARM FOR SALE. MARTIN SMITH, Rhodes, Mich.

LAKE MICHIGAN FARM, \$4,500. 160 acres with 20 cattle and horses, implements, tools thrown in; big yields all crops; good money from dairy and stock; RR station, good markets and advantages convenient; machine-worked fields for 300 bushel potatoes, 30 bushel wheat or 2 1-2 tons hay acre; pasture, woodlot; good 2-story 6-room house, 54-ft. barn, stable, garage, poultry house. Owner called by other duties sacrifices \$4,500, part cash. Full details page 92 illus. Catalog 1200 Bargains. FREE. STROUT FARM AGENCY, 814 BE Ford Bldg., Detroit, Mich.

80 A. SANILAC COUNTY; 2 MILES FROM busiest town in county. Good buildings. Good roads. Best soil. BOX 100, care Michigan Business Farmer, Mt. Clemens, Mich. (P)

40 ACRE FARM FOR SALE. LARGE OR-chards of all kinds of fruit. Up-to-date 10-room house, large barn and silo. All other buildings good. 1 mile from town. Price right. Write to GUST. DRAHEIM, R. 1, Bloomingdale, Mich. (P)

FOR SALE—80 ACRES WITH STOCK AND tools, five miles from Saginaw, on Dixie Highway. Ideal fruit farm, part clay, balance sand, clay subsoil. Good buildings, price \$12,500. A. WILCOXSON, Bridgeport, Mich. (P)

120 ACRES, EATON COUNTY, GOOD buildings. 50 acres cleared. Oillet 4 miles. \$3,000 cash, balance terms. JOHN MARTEY, R. 1, Saginaw, Mich. (P)

FOR SALE—160 ACRES, HALF UNDER cultivation; good buildings; orchard, flowing well, on state road. Write to JOHN SCHORLEG, Ewart, Mich. (P)

120 ACRE FARM FOR SALE, 2 MILES east of Turner on stone road. One large house, small barn, hen coop 12x24, corn crib and flowing well; 50 acres cleared, rest pasture land in the best farming country. Hill sell on easy terms. Reason for selling, poor health. Inquire of JACOB WIEDERHOLD, Turner, Mich. (P)

FARM BARGAIN CHEAP—80 ACRES RICH hardwood clay and loam. Osoda county, 35 acres cleared, near school; mares, 8 dairy cattle, 11 ewes, ram, sow; stock increase in April and May. Immediate possession. Farm tools, crops, everything ready for farming. Enough down to cover stock and tools; balance small payments, discount for cash. HIRAM STEVENS, Luzerne, Mich.

FOR SALE 95 ACRE FARM, GOOD BUILD-ings, good soil, wood lot, near school. For particulars write owner. CARRIE GIBSON, Lapeer, Mich. R. 5. (P)

FOR SALE—CLOVER SEED BELT LANDS. 300 acres heavy clay, hardwood cut-over land. Graded, watered and fenced. Small clearance. Dairy proposition. On Dixie Highway, two miles from Millersburg. \$17.50 per acre. Also 400 acres lighter clay soil. 8 1-2 miles from Millersburg. Some improvements. Sheep or cattle proposition. \$12.50 per acre. Ten per cent cash gives possession, either tract, balance 50c an acre yearly at 6 per cent, or purchaser can pay balance with Grinnings certified alfalfa seed crops, and certified potato crops. JOHN C. KRAUTH, Millersburg, Presque Isle County, Mich. (P)

FOR RENT—FOUR ACRES RICH MUCK land suitable for onions and cabbage. Can furnish all team work. Act quick. FLOYD D. GEIGER, Freeport, Mich. (P)

FOR SALE—100 ACRE FARM 50 ACRES in city limits. Fruit, pasture. MRS. J. R. SAYLOR, 114 Irwin Ave., Albion, Mich. (P)

IF YOUR FARM OR COUNTRY HOME IS for sale. Write us. No commission charged. CLOVERLAND FARM AGENCY, Powers, Mich.

BUY SLOCUM FARMS. SIZE 40 TO 4600 acres. Price \$20.00 per acre and up. Terms 10 per cent down. Interest, 1st year 3 per cent, 2nd year 4 per cent, 3rd year 5 per cent, balance 6 per cent. Apply SAMUEL BUTLER, Slocum, Michigan.

LANDSEEKERS AVAIL YOURSELVES OF opportunity; locate in "Best of Western Michigan Fruit Belt." All sized tracts, fruit and general farming, sells \$6 to \$100 acre. Write J. W. SAUNDERS, Beulah, Mich. (P)

80-ACRE FARM. CLAY LOAM SOIL. FAIR buildings. Half improved. Tiled. Deep well. Orchard. Write owner. KENNETH MARSHALL, Coleman, R. 2, Mich. (P)

MISCELLANEOUS

TOBACCO

TOBACCO HOME SPUN—EXTRA FINE Chewing, 10 lbs. \$3.00; Smoking 10 lbs. \$2.00. 20 lbs. \$3.50. PRODUCERS EXCHANGE, Mayfield, Ky. (P)

KENTUCKY TOBACCO—DON'T SEND ONE penny, pay for tobacco and postage on arrival. Extra fine quality leaf, 3 years old, nature cured. Chewing 10 lbs. \$3.00; smoking 10 lbs. \$2.50. FARMERS' UNION, D123, Hawesville, Ky. (P)

TOBACCO: KENTUCKY'S PRIDE, RICH mellow chewing or smoking. 10 lbs. \$3.00. Mild smoking 10 lbs. \$2.00. 20 lbs. \$3.50. FARMERS CLUB, Mayfield, Ky. (P)

TOBACCO, KENTUCKY'S NATURAL LEAF, Mild, Mellow smoking 10 lbs. \$2.25; Hand-selected chewing 3 lbs. \$1.00. Free receipt for preparing. WALDROP BROTHERS, Murray, Ky. (P)

TOBACCO, SPECIAL SWEATED LEAF. Chewing, select, 3 lbs., \$1.10; 10 lbs., \$3. Chewing, smoking, 10 lbs., \$2.50. Good smoking 10 lbs., \$2.50. Guaranteed. CO-OPERATORS, Murray, Ky. (P)

HOMESPUN SMOKING OR CHEWING TO-bacco. Collect on delivery. 5 lbs. \$1.50; 10 lbs. \$2.50. 20 lbs. \$4.00. FARMERS ASSOCIATION, Paducah, Kentucky. (P)

NURSERY STOCK AND SEED

NEW STRAIN YELLOW SEED CORN FOR crib or silo. Greater food value. Shells 58 1/2 pound. FRANK WOODWARD, Clinton, Mich. (P)

NORTHERN GROWN WHITE BLOSSOM Sweet Clover seed, scarified and re-cleaned. \$6 per bu., bags free. f. o. b. Millerburg, Mich. M. P. TRAFLET, Samples on request.

FOR SALE—LITTLE JAP BUCKWHEAT. A-No. 1 quality. \$2.00 per hundredweight. C. G. KETCHAM, R. F. D. 1, Mt. Clemens, Mich. (P)

BIG BARGAIN—12 LUCRETIA DEWBERRY No. 1 root plants and 20 Concord grape cuttings for \$1.50 postpaid. Raise your own apple trees from apple grafts, 5c each. Get list of other bargains. Varieties true to name. BEN L. MARSHALL, Paw Paw, Mich.

CRANBERRY PLANTS FOR SALE, \$1.25 per hundred, postpaid. HARVE LUCE, Reed City, R. 5, Mich. (P)

STRAWBERRY PLANTS

STRAWBERRY PLANTS FOR SALE. SEN-ator Dunlap, Gibson and Dr. Burrill. 40c per hundred, \$3.00 per thousand. Progressive Everbearers \$1.00 per hundred, \$10.00 per thousand. ROBT. DE GURSE, Ovid, Mich. (P)

STRAWBERRY PLANTS—SPECIAL OFFER. 150 Senator Dunlap, 150 Warfields, \$2.00; postpaid. Senator Dunlap \$4.00 per 1,000; \$2.25 per 500, not prepaid. Satisfaction guaranteed. Catalog free. Write today. HAMPTON & SONS, Bangor, Michigan.

100 BEST BLACK RASPBERRY \$1.75; Grape vines 1c up; Asparagus \$7 per 1000, 5000 @ \$25; Peach Trees 15c up. Wholesale price list free. 100 Everbearing Strawberry, 100 Dunlap and 25 Extra Early all for \$2.00 postpaid lower Mich. GORLEVILLE MICH. NURSERIES. (P)

STRAWBERRIES, 2 LEADING VARIETIES. 1000 Dunlap Plants \$3.25; 1000 Gibson Plants \$3.75; 1000 Raspberry Plants \$12.00. FRED STANLEY, 124 Main St., Bangor, Mich. (P)

BEEES AND HONEY

BEE HIVES, SECTIONS, COMB FOUNDA-tion smokers, etc. Complete outfits for beginners with or without bees. Agents for A. I. Root Co. goods in Michigan. Send for catalog. Beeswax wanted. M. H. HUNT & SON, 508 N. Cedar St., Lansing, Mich.

LIGHTNING RODS

LIGHTNING RODS, OLD LINE INSURANCE Companies now giving a 10 per cent discount on our material of making it an agents Harvest. WRITE TODAY, L. D. DIDDIE CO., Marshfield, Wis.

GENERAL

ALL MEN, WOMEN, BOYS, GIRLS OVER 17 willing to accept Government Positions \$135. (stationary or traveling) write Mr. Ozment, Dept. 355, St. Louis, Mo., immediately.

SEND ME YOUR NAME AND ADDRESS for free pamphlet telling you about Wild Goose Corn, particularly farmers located in the Northern portion of Southern Michigan. E. F. O'BRIEN, Route 2, Box 137, Kalamazoo, Mich. (P)

HIDES TANNED OR LEATHER FOR RE-pair work sold direct. Prices reasonable. Let us send samples. COCHRAN TANNING CO., Greenville, Michigan. (P)

FARMERS ATTENTION—TIME AND LA-bor saved by using the Automatic Check Attachment. Rows your corn both ways without the use of cable. Agents wanted. E. C. MCNITT, Bangor, Mich. (P)

HELLO GIRLS! AM A YOUNG MAN OF 29 I wish to correspond with some nice lady. ARTHUR THOMPSON, Johnsonburg, N. Y.

WANTED AT ONCE A HOUSEKEEPER I am a widower by death. Have one girl 10 years old on farm. ARTHUR BRADY, Boon, Mich. (P)

GOVERNMENT NEEDS RAILWAY MAIL clerks, \$133 to \$192 month. Write for free specimen questions. COLUMBUS INSTITUTE, 0-4, Columbus, Ohio. (P)

WANTED—MAN WITH TEAM OR AUTO to handle S. M. Co. Products in some choice vacant territory. For particulars address, SAGINAW MEDICINE CO., Saginaw, Mich. (P)

SIDE LINE SALESMAN WANTED TO SELL coal to your trade in carload lots. Earn a week's pay in an hour. For particulars write, WASHINGTON COAL CO., 3535 So. Racine, Chicago. (P)

WANTED DISTRICT SUPERINTENDENT to sell fruit and ornamental trees, rose bushes, shrubbery and seeds. Engage and supervise sub-agents. Pay weekly. WEEKS NURSERY CO., Newark, New York. (P)

LIGHTING PLANT FOR SALE. J. B. Colt acetylene gas plant in No. 1 condition. Pipe and fixtures for the house and barn. Used two years. Stove for cooking. Will sell cheap. Write WILBUR LUND, Waucedah, Mich. (P)

FOR SALE, BUCKEYE TRACTOR DITCHER, caterpillar type wheels. Digging wheel nearly new. Machine in good running order. Other interests force sale. ORVILLE ELDRED, Perinton, Mich. (P)

TRACTOR, NEW, ALLIS-CHALMERS 10-18. \$450 for quick sale. E. E. MEYERS, R. 1, Box 3, Lawrence, Mich. (P)

BARREL LOTS SLIGHTLY DAMAGED crockery, hotel chinaware, cookingware, aluminumware, etc. Shipped direct from factory to consumer. Write for particulars. E. SWASEY & CO., Portland, Maine. (P)

WANTED GREAT DANE DOG MALE PUP. VERNE K. DARLING, Carland, Mich. (P)

FOR SALE—TWENTY SHARES OF DE-troit Packing stock. GEO. HARRISON, Clay-ton, Mich. (P)

HAVE YOU EVER

ADVERTISED THROUGH

OUR "BUSINESS FARMERS"

EXCHANGE"?

IT GETS RESULTS

MARKET FLASHES

TRADE AND BUSINESS REVIEW

THE prediction that a country-wide business revival would materialize during the current spring months has been frequently made in this department during the last 60 days; the revival is now a fact and there is a fair prospect, that before the season is over, some important new records will be established. Reports, concerning construction work in April, show that a start has been made on undertakings that, in the aggregate, will cost nearly \$50,000,000; this is 10 per cent gain over last month and 78 per cent larger than for April of last year. Probably never before in the history of this country, was the demand for good reliable investments so imperative. With call money at 3 1-2 on the New York Stock Exchange, acceptances easy tending lower, we are reminded of the interesting fact that the country is full of idle money the owners of which are vainly trying to devise some way to keep it working.

Reports from all of the great centers of population, show a decided improvement in the unemployment situation and there is now good reason to believe that before the summer is over the American employer of labor will be up against a wage scale and a scarcity of skilled men equal to the conditions which prevailed during the late world war. Activity is the watchword in connection with the production of all basic materials and finished products. Steel mills, iron foundries and coke ovens and automobile plants are dropping behind in their deliveries. Prices for raw wool are gaining strength every day and the goods

Edited by H. H. MACK

MARKET SUMMARY

Grain markets holding steady after last week's declines. Beans firm and higher. Potatoes decline slightly after last week's advance. Markets over-supplied with strawberries and fresh vegetables and prices show tendency toward lower levels. Cattle strong. Hogs dull.

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

market is more active than at any preceding date since the armistice was signed. There is, on every hand, a feeling that the American farmer has passed the turn in the road and that before the year is over he will have his nerve all back and will be functioning normally.

The activity on the stock exchanges of the country, which featured the early weeks of the spring, still continue. All of the "dividend-payers" are in demand at gradually hardening values and the outlook for the midsummer business on 'change is very encouraging. The weekly bank clearings made a new record for the season; the figures are \$7,690,931,000.

WHEAT

May 10th—For a week back the wheat market has been the victim of very conflicting news and prices dropped from a high on the Detroit market of \$1.43 to \$1.37 the last of the week. As we go to press the feeling is better and the trade is

looking forward confidently to a revival of demand and higher prices. No matter how favorable may be the growing weather from now on in the wheat belt it is an assured certainty that the total crop will be less than a year ago. Acreage in many other important countries of both spring and fall wheat is a trifle larger and judging from present indications the total world crop for 1922 will not be far out of line with the 1921 crop. This simply means that we must live another year from hand to mouth, with no surplus to store away for future use. That wheat prices on the old crop will vary between the present low of \$1.37 and \$1.50 is the general belief of the trade.

Prices

Detroit—Cash and May No. 2 red, \$1.37; No. 2 white and No. 2 mixed, \$1.35.

Chicago—Cash No. 2 hard, \$1.37. New York—Cash No. 2 red, \$1.48. One year ago—Detroit, No. 2 red, \$1.48. Two years ago, \$2.95. Two years ago the 4th of May wheat reached \$3.45 at Chicago, the highest price ever recorded.

CORN

May 10—Last week was a quiet period in the corn market but on Monday, May 8, the market developed firmness that continues in evidence. Good weather in the corn belt and prospects of an extra large acreage of corn owing to restricted seeding of oats this spring affected the corn market last week but forecasts of rain, reduced visible supply and the fact that farmers are two weeks or more behind with their

work put a steady tone in the market this week.

Prices

Detroit—No. 2 yellow, 67c; No. 3 yellow, 65 1-2c; No. 4 yellow, 64c. Chicago—No. 2 yellow, 62 @ 62 3-4c.

New York—No. 2 yellow, 81c. Prices one year ago: Detroit, No. 2 yellow, 66c; No. 3 yellow, 65c; No. 4 yellow, 62c.

Prices two years ago: Detroit, No. 3 yellow, \$2.05; No. 4 yellow, \$2.00.

OATS

May 10th—Oats have reached a new high since over a year back. The huge supplies which have glutted terminal markets for months have been gradually moved and the market is responding accordingly. Oats acreage completed and contemplated indicates a decrease of 4,576,000 acres or in excess of 10 per cent. Seeding has been delayed considerably in the southwest because of the extremely wet weather. It is noted that a delayed season usually results in increased acreage and the harvest is usually good.

Prices

Detroit—Cash No. 2, 45 cents; No. 3, 43c; No. 4, 40c.

Chicago—Cash No. 2, 47 @ 44 1-2c; No. 3, 37 @ 41c.

New York—Cash No. 2 white, 49 1-2c.

One year ago: Detroit, No. 2 wheat, 42c. Two years ago, \$1.28.

RYE

The rye market has responded to the better feeling in wheat and has failed to suffer so much from selling pressure. Some export business is being done. Prices are considered too low on this grain and there are prospects of a fair advance before another crop. The condition of the new crop is good, taking the country as a whole, with very little abandonment of acreage. The estimated acreage and condition indicate a total crop of 78,540,000 as against 57,918,000 a year ago.

Prices

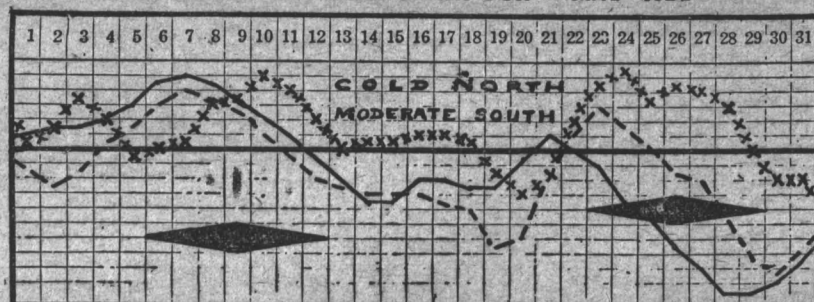
Detroit—Cash No. 2, \$1.08. Chicago—cash No. 2, \$1.03 @ 1.04 1-2.

One year ago: Detroit—Cash No. 2, \$1.36. Two years ago, \$2.20.

THE WEATHER FOR NEXT WEEK

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

FOSTER'S WEATHER CHART FOR MAY 1922



For meridian 90, a line north and south from St. Louis. Straight, heavy horizontal line is normal temperatures. Crooked lines are temperature forecasts; where they go above normal line means warmer; below that line cooler. DIAMONDS are for severe storms and increase of precipitation. Solid crooked line is for northern latitudes, broken line for middle latitudes, X line for southern latitudes. Weather events move from northern Canada to meridian 90 in 2 or 3 days; from 90, half way to Atlantic coast in about 2 days; from 90 to Atlantic coast in about 4 days.

WASHINGTON, D. C., May 13.—Northern Division: All north of latitude 36 between meridian 90 and Rockies crest. Week centering on May 17 lower than usual temperature but rather mild, unimportant weather features; fair crop-weather; good time for outdoor work. I repeat to all interested in products of agriculture, this is your opportunity, better than you have had for a long time. Make good use of it and you will be happy when autumn comes with its well filled cornucopia horns. For the period mentioned, less than usual rain, no severe storms. I am not saying that all sections will produce well; some bad failures are sure in America and Canada.

Northern Division: All north of 36 and east of 90. Great fall in temperatures from May 11 to 20. Week centering on May 18 lower than usual temperatures; about normal moisture, crop-weather and similar encouragement as in first paragraph. No severe storms; threatening frosts in northern sections during week

centering on May 17. Moisture will come from southward, from Gulf of Mexico, for all divisions east of Rockies crest. If long, high ridges are between you and the Gulf of Mexico, you will get less moisture than predicted. If you are between long, high ridges and the Gulf of Mexico, you will get more moisture than predicted.

A new weather prophet, W. O. Altman, of Westline, Penn., is gaining some note thru the press. He holds that March 20 controls to April 20, March 21 from April 21 to May 21, March 22 from May 22 to June 19, June 20, 21, 22 control in similar routine for three months; then Dec. 20, 21, 22 up to March 19. There may be something in this theory and if so the cause will be found in the new moons falling closest to and prior to the controlling dates. Some day the "Smart Alecs" of Meteorology will realize that our moon does affect our weather. Sages of weatherology, beginning with the sailors, hunters, farmers, have long known this to be true.

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Style Number	Price Per Rod Delivered	Line Wires	Height in Inches	Inches between Stays	Approx. Weight Per Rod	Gauge Top Wire	Gauge Bottom Wire	Gauge Filling
726	.26	7	26	12	5.5	9 1/2	9 1/2	12 1/2
7260	.30 1/2	7	26	6 1/2	6.5	9 1/2	9 1/2	12 1/2
832	.29 1/2	8	32	12	6.2	9 1/2	9 1/2	12 1/2
8320	.36 1/2	8	32	6 1/2	7.7	9 1/2	9 1/2	12 1/2
9390	.41 1/2	9	39	6 1/2	8.7	9 1/2	9 1/2	12 1/2
H 832	.37 1/2	8	32	12	8.6	10	10	11
H 939	.42	9	39	12	9.7	9	10	11
H 9390	.57	9	39	6	13.1	9	10	11
H 1047	.47 1/2	10	47	12	10.9	9	10	11
E 939	.57 1/2	9	39	12	14.1	9	9	9
E 9390	.80	9	39	6	19.6	9	9	9
E 1047	.65 1/2	10	47	12	16.	9	9	9
E 10470	.91 1/2	10	47	6	22.3	9	9	9

2 pt. Hog, 3 inches between bars, weight, 83 lbs. per 80 rod spool.....\$3.70
2 pt. cattle 5 inches bet. bars. Weight, 78 lbs. per 80 rod spool.....\$5.50

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..... Rods of Style No.@.....
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My name is....., Railway Station.....

BEANS

May 10th—Bean prices are taking another spurt and are up to \$7.20 per cwt., at Detroit. For thirty days back there has been a lull in buying, the wholesalers and canners hoping to discourage further price advances by dropping temporarily out of the market. But having used up their meagre supplies they are back again, and with very few beans comparatively speaking yet to be marketed the natural result is a stiffening of the market and an advance in prices. It may be supposed, also that the jobbers are doing everything within their power to keep the market in a healthy condition as they are anxious to see a large acreage planted this year. That their expectations may be fulfilled is becoming every day apparent.

One of the discouraging things which those who are honestly striving to restore the navy bean to its former prestige on the American bill of fare have to contend with is the competition of the Kotonashi beans which are still being persistently advertised and pushed by certain jobbing interests of this and other states to the great detriment of the navy bean. As recently as April 25th a Port Huron bean company addressed a circular letter to the bean trade in which this statement was made: "We have a quantity of choice Kotonashi beans. These beans run very uniform in quality and will soak and cook as good as Michigan stock." While no doubt this or any other company is perfectly justified in dealing in Kotonashi beans, it would seem that it is pursuing a most injurious policy when it seeks to create in the minds of the bean trade a belief that Japanese beans are as good as the home-grown variety. The navy bean industry has been very nearly put out of business by the competition of the cheaper Kotonashis and any Michigan firm which would lay a straw in the way of the upbuilding of the Michigan bean industry ought to be "black-balled."

Prices

Detroit—Choice hand picked, \$7.20 per cwt.

Chicago—Michigan, C. H. P. \$7.30 @ 7.55; red kidneys, \$8 @ 8.25.

New York—C. H. P., \$7.25 @ 7.40.

Prices one year ago: Detroit, C. H. P., \$3.40.

Prices two years ago: Detroit, C. H. P., \$7.75.

POTATOES

"My boys saved exactly \$400 on their potatoes by taking the advice of the Business Farmer," said a man to the editor the other day. "They insisted on selling just at the time when prices were down to their lowest point, but I urged them to take the advice of the M. B. F. which they did. Today they can get 30 cents a bushel more for their potatoes than they could when they wanted to sell."

As Dr. Horner of the M. A. C. says, "It is dangerous to prophesy. The correct predictions are soon forgotten, but a wrong one is remembered forever." It pleases us immensely to know that these boys saved money by taking our advice. We hope many others did also. The Michigan potato market has had a wonderful come-back the last ten days though it is slightly weaker as we go to press. Opinions as to the wind-up on this market do not amount to much. Some expect to see a strong finish; others a weak finish. Much will depend upon the volume of new potatoes from the south. Many farmers can sell now at 90 cents or more per bushel, which is a fair price. Whether a man can afford to take a gamble on the trend of the market the next six weeks hoping for higher prices is something he must decide for himself without suggestion from us.

Prices

Detroit—\$2.06 @ 2.17 per cwt., sacked.

Chicago—\$1.50 @ 1.70 per cwt., sacked.

New York—\$1.33 @ 1.83 per cwt., sacked.

Pittsburg—\$2 @ 2.16 per cwt., sacked.

Prices one year ago: Detroit, \$1.10 per cwt., sacked.

Prices two years ago: Detroit, \$7.23 per cwt., sacked.

HAY

The hay market in general continues firm and several eastern markets are quoting higher prices than 2 weeks ago. Western markets are quiet with offerings light. The heavy run of hay to market expected the past month has not materialized to date as farmers are too busy with spring work to spare the time to market their supply. Also a great many of the farmers have none to market, in fact, some sold themselves short last winter and are now trying to buy.

Prices

Detroit—Standard timothy, \$21 @ 22; No. 2 timothy, \$20 @ 21; No. 1 light mixed, \$21 @ 22; No. 1 clover, \$16 @ 17.

Chicago—Standard timothy, \$25 @ 27; No. 2 timothy, \$23 @ 25; No. 1 light mixed, \$24 @ 25.

Pittsburg—Standard timothy, \$23 @ 23.50; No. 2 timothy, \$20.50 @ 21.50; No. 1 light mixed, \$22 @ 23; No. 1 clover, \$21.50 @ 21.

LIVE STOCK MARKET

With Chicago cattle receipts 8,000 head larger than during the week before, prices, for the six days trading, did not quite hold up with the especially good business of the week before. The handier grades of steers held just about steady all the week but all grades of heavy, well-finished cattle were from 10 to 25 cents lower than on the week before, the last days of last week being the dullest for all of the better grades. On the whole, however, the situation was encouraging to the selling side of the market, the general opinion before the trade opened being that any material increase in arrivals would cause prices for live cattle to slump; the increase came but prices have eased off but little as a result. The highest price paid in Chicago, last week, for good tidy killing cattle was \$9.15; the steers that brought this price averaged a trifle over 1,500 pounds and were about the last word in finish. The top for yearlings, in Chicago last week, was \$9.25. Common-quality

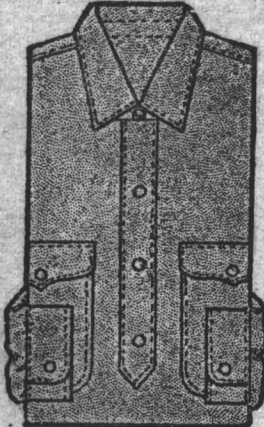
yearlings are just about the hardest thing to sell in the live stock list.

The bottom is fairly well out of the sheep and lamb market for the present, the only really bright spot being the increasing demand for wool in all of the markets of the country. Heavy sheep were a drag on the market some sales showing a decline of fully \$2 per cwt. Yearling lambs held their own in a splendid way but "springers" were lower this week from the beginning of the day's business to the close.

Live hogs took another sharp turn upward, last week, in nearly all of the leading markets of the country and still a little more was added on Monday of this week. The trade seems to be apprehensive concerning the supply of fat hogs, back in the bush and frequently bid up prices above the levels indicated by quotations for manufactured goods. The writer is still of the opinion, frequently expressed of late, that the present is a splendid time to market finished hogs.

PRICES CAN'T BE LOWER

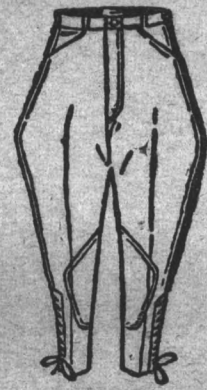
GENUINE NEW U. S. ARMY O. D. WOOL SHIRTS



\$2.49
Plus Postage

Yes, the kind you have been looking for, double elbow, bosom lining, genuine wool serge, last a lifetime. You can wear them in summer or winter. Order at least a half dozen of them. All sizes from 15 to 17. Special each \$2.49, plus postage.

KHAKI ARMY BREECHES



\$1.49
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Brand new. Yes, even cheaper than ordinary pants. A better garment for work or play. All sizes from 30 to 42. Special per pair \$1.49 plus postage.

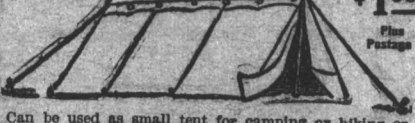
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Brand new. Non-breakable. Capacity 1 quart of any liquid. Small. Compact, fit into your pocket. Cost the gov't \$1.35 apiece. Now special, each 39c, plus postage.

GENUINE U. S. ARMY PUP TENTS



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Plus Postage

Can be used as small tent for camping or hiking or children like them for play tents. Large enough for two to sleep in. Two halves button together. Cost the government \$7.00 apiece. Have been only slightly used but are practically as good as new. You can now buy one for one-third of government cost. Special each \$1.95, plus postage.

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GENUINE U. S. ARMY KHAKI COVERALLS



\$1.59
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An all around work garment the War Department selected for being the most practical and useful garment. Better, cheaper and handier than overalls. All sizes from 38 to 44. Special per suit \$1.59, plus postage.

LEGGINGS

CANVAS LEGGINGS

49c
Plus Postage

Regulation new and genuine government issue, all sizes from 1 to 5. Special per pair 49c, plus postage.

O. D. WOOL WRAP OR SPIRAL LEGGINGS

68c
Plus Postage

They wrap securely about the legs. Look fine and feel good. Genuine government issue. Cost the government \$2.00 a pair. Brand new. Special per pair 68c, plus postage.

GENUINE U. S. ARMY O. D. WOOL BLANKETS

\$2.69



Made up special for the government and up to specifications. A blanket that will last a lifetime. Worth \$8.00. While they last. Special each \$2.69, plus postage.

GENUINE U. S. ARMY RUSSET DRESS SHOE



\$3.95
Plus Postage
SIZES 6 to 11

GENUINE U. S. ARMY OFFICERS' DRESS SHOE

At last. Here is your chance to buy a genuine army officers' shoe. Brand new, any size from 6 to 11. At practically 1/2 of original cost. Think of it, a \$10.00 shoe you now can buy for only \$3.95 pair, plus postage.

SIZES 6 to 11.



\$3.95
Plus Postage

GENUINE U. S. ARMY NEW ALUMINUM MESSKIT



39c
Plus Postage

Brand new. Non-breakable. Handy when opened for frying pan or plate. Wonderful for picnics. Cost the gov't \$1.85 apiece. Now Special each 39c, plus postage.

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"Polly Prim" Percale Aprons

Every minute of the day these practical, stylish "Polly Prim" aprons come in handy. No woman can afford to be without them—especially at this smashed bargain price.

2 for 89c

We offer an unusual bargain in these cunning aprons. Made in plaid and check patterns. Very useful, yet inexpensive. Two pockets, and rick rack trimming throughout. Comes one plaid and one check to a set of two. Order by No. 97E-6545. Send no money. Pay postage on arrival for 2 aprons. Money back if not satisfied.

Soft Kid Slipper One Strap Model

\$1.69

State Size



Beautiful soft kid leather slipper. Stylish strap model with two buttons. Medium round toe. Cushion soles. Black only. Sizes 2 1/2 to 8. Wide widths. Order by No. 97A228. Send no money. Pay \$1.69 and postage on arrival. State size.

Sturdy Scout Shoe

Soft, brown, ooze leather uppers. Reliable oak leather soles stitched and standard screwed to prevent ripping. Leather insoles; low broad, leather heels. Sizes 6 to 11. Wide widths.

\$1.79



Order by No. 97A740. Send no money. Pay \$1.79 and postage on arrival. Order little boys' sizes 9 to 13 1/2 by No. 97A-567. Price \$1.39. Order big boys' sizes 1 to 6 by No. 97A566. Price \$1.59. Pay bargain price and postage on arrival.

Narrow Stripe Worsted Pants

Neat, narrow gray stripe pattern of Thorndyke cotton worsted. Celebrated for its durability. Ideal material for work trousers. Suspender buttons. Belt loops, plain bottoms. Stoutly sewed waistband. Sizes, waist 30 to 42. Inseam 30 to 34.

\$1.49

Order by No. 97B1563. Pay only \$1.49 and postage on arrival. Give your waist and inseam sizes.

Order men's strong khaki cloth pants by No. 97B1560. Pay \$1.29 and postage on arrival. Give measurements.



Blue Serge Pants Bargains

This price is so amazingly low that there will surely be a flood of orders for this number. Fine blue cotton serge of splendid weight material that assures good service. Made with 2 hip, 2 side and 1 watch pocket. Plain bottoms. Good roomy cut. Belt loops and inside suspender buttons. 30 to 42 waist; 30 to 34-inch inseam. Order by No. 97B1574. Send no money. Pay \$1.79 and postage on arrival. Mention necessary sizes.

We positively guarantee to save you money—big money—on every article which you order from this page. Nowhere else can you obtain such high quality at such absolutely rock-bottom prices. Let us prove it at our sole risk. Just tell us now which items to send and they will come to you entirely on approval. Then, if you are not satisfied that you have made a big saving—simply send the goods back and you will not lose a penny.

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SHAROOD CO. DEPT. 97 MINNEAPOLIS, MINN.



Dressy 3-Buckle 3-Strap White Canvas Slippers
\$1.98

Give Size

Stylish plain toe white canvas slipper for women. Has splendid white finished genuine oak soles, white Cuban heels with White Rubber Top Lift. Novel 3-buckle, 3-strap model. Size 2 1/2 to 8. Wide widths. Order by No. 97A317. Send no money. Pay \$1.98 and postage on arrival. Money back if not satisfied. State size.

Dressy Wing Tip Oxfords

\$1.98

Give Size



The neatest last any woman could wear for all-around service. Uppers of splendid soft kid finished with fancy perforated wing tip and vamp. Strong oak soles and medium rubber heels. A style that will always look dressy. Choice of black or brown. Sizes 2 1/2 to 8. Wide widths. Order Black by No. 97A275. Order Brown by No. 97A276. Send no money. Pay \$1.98 and postage for either color on arrival. Money back if not satisfied. State size.

Men's English Model

Smartest shape and best quality; regular \$4.00 value. Selected black or brown calfskin. Extension oak soles, leather insoles. Solid leather heels. Sizes 6 to 11. Wide widths.

\$1.98

Give Size



Order by No. 97A657. Send no money. Pay \$1.98 and postage on arrival. Order same style as above in rich brown calf by No. 97A661. Send no money. Pay \$2.79 and postage on arrival. State size wanted.

Durable Chambray Shirt 59c

Men's stout chambray work shirts. Every seam double stitched. Double yoke. Breast pocket. Turn-over collar. Sizes 14 1/2 to 17.

Order by No. 97B1530. Pay 59c and postage on arrival. State size.

Men's shirt of serviceable khaki material made with stoutly sewed seams. Has large breast pocket and durable attached collar of self-material. Sizes 14 1/2 to 17. Khaki color only. Order by No. 97B1531. Send no money. Pay 89c per shirt and postage on arrival. Give size.

Men's good quality black sateen work shirt. Attached collar. Long wearing material. Seams double stitched. Sizes 14 1/2 to 17. Order by No. 97B1534. Send no money. Pay 98c and postage on arrival.



Snappy Wing Tip

Brown Russian Calf Oxford

\$3.48

Goodyear Welt

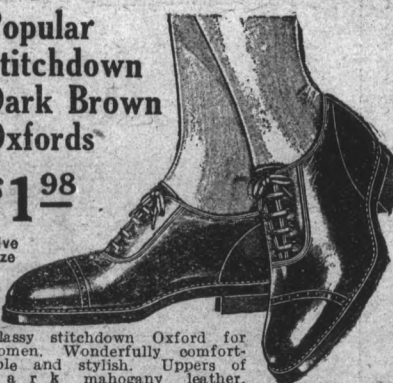


Most popular color men's dress oxford for spring and summer. Dark mahogany brown Russian calf—new Brogue style with full vamp (not cut off), and fancy perforations on tip and vamp as pictured. Extension Goodyear sewed soles, pure gum rubber heels, leather insoles. Sizes 6 to 11. Wide widths. Order by No. 97A634. Order same style in high shoe by No. 97A635. Send no money. Pay \$3.48 and postage on arrival for either pair.

Popular Stitchdown Dark Brown Oxfords

\$1.98

Give Size



Classy stitchdown Oxford for women. Wonderfully comfortable and stylish. Uppers of dark mahogany leather. Smooth leather insole. Flexible stitch-down oak outsoles. Low rubber heels. Sizes 2 1/2 to 8. Wide widths. Order by No. 97A268. Send no money. Pay only \$1.98 and postage on arrival.

Patent Leather 'Mary Jane' SLIPPER

99c UP



This popular practical warm weather dress slipper amazingly low priced, quality considered. Uppers of splendid grade black patent leather. Soles of genuine oak leather; flexible but strong. Pliable uppers; low heels; neat bow front. Comes in wide widths and all sizes from infants to big girls. Order infants' sizes 3 to 8 by No. 97A364. Price 99c. Children's sizes 3 1/2 to 11 by No. 97A365. Price \$1.39. Misses' sizes 11 1/2 to 2 by No. 97A366. Price \$1.59. Big Girls' sizes 2 to 8 by No. 97A367. Price \$1.79. Send no money. Pay bargain price and postage on arrival. State size.

Hip Boot Bargains



Don't fail to make this big saving on Men's pure gum hip boots; friction lined; heavy corrugated sole and heel; guaranteed first quality. Made of the very best rubber. Usualy sells at \$5. Be sure to order your pair while this great saving offer lasts. Sizes 7 to 14. Wide widths. No half sizes.

\$2.48

GIVE SIZE

Order by No. 97A949. Send no money. Pay \$2.48 and postage on arrival. State size wanted. Order similar style in knee boot sizes 7 to 12 by No. 97A950. Send no money. Pay \$2.48 and postage

Stunning Style Dotted Voile

With Rich Organdy Collars, Cuffs, Sash

This beautiful model in voile is a very striking design—right up to the moment in following fashion's dictates for Spring and Summer. It is also a mode that fortunately becomes every figure and a truly amazing bargain at our smashed price. Send today and judge for yourself.



\$1.98

Made of standard quality dotted voile with modish panel trimmed overskirt. The neat tuxedo front, wide, flowing sash and deep cuffs on sleeves, are of sheer white organdy. Make this unusual saving now. Order your size in choice of three colors below. Sizes 34 to 40.

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Brown Leather Work Shoe

\$1.99

State Size



Splendid brown leather work shoes. Heavy durable uppers; extra strong solid oak leather soles; leather insoles; low broad leather heels reinforced leather back stay. Roomy last. Size 6 to 12. Order by No. 97A758. Send no money. Pay \$1.99 and postage on arrival. Order boys' sizes 1 to 5 1/2 by No. 97A554. Price \$1.89. Order little gents' sizes 9 to 13 1/2 by No. 97A555. Price \$1.79 and postage on arrival. Mention size.

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