# BUSINESS FARMER

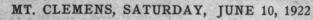


VOL. IX., No. 37

An Independent Farmer's Weekly Owned and Edited in Michigan



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## Current Agricultural News

WOOL PRICES CONTINUE UP-WARD

WORLD wide indications of a wool shortage continue to boost the market for American fleeces, said D. W. Williams, June 1 as the Farm Bureau grading teams were engaged in pooling and grading locally in Kent, Ottawa, Muskegon, Montcalm and Mecosta counties. From those counties the teams on June 15 will begin a campaign of 37 pooling centers in the Thumb district.

The bureau expected to complete the second payment of its 1921 pool account to the farmers by June 6, according to a statement issued on June 1 when 6,700 checks had been dispatched and the remainder of the 10,000 were being sent out at the rate of 500 a day.

Dealers and manufacturers in the Seventh Federal Reserve District said in the May business conditions report of the Chicago Federal Reserve bank that recent improvements in the wool industry, lack of a surplus of desirable wool, the tariff outlook a probable smaller clip in the United States for 1922, advancing foreign markets and speculative trading-were factors that increased price paid wool producers nearly 100 per cent over April 1921 prices.

South American wools are rapidly disappearing. The Argentine stocks are reported down to small lots which are commanding high prices. The Uruguay crop of 5,000,000 pounds has been sold. Other foreign countries report close competition for their wool clip.

Extraordinary high prices paid at San Angelo, Texas—46 to 52 cents a pound,—for a 200,000 pound lot of Texas wools were promptly reflected in the Boston quotations, said a report to the Farm Bureau.

The market on June 1 was re-

The market on June 1 was reported to be keen for the fine wools of the bright wool states, especially in Ohio. Red Bluff, California, growers refused 35 cents for their clips. In Montana high prices are prevailing. There it is reported that there are but 2,000.000 sheep in the state as compared to 5,000,000 in 1902 and that it will take Montana several years to get back to a normal wool production basis. Michigan wools are in equally keen demand. The State Farm Bureau reports sales discount wools at 33 cents from the 1922 pool, said Mr. Williams.

#### AUSTRALIAN GOVERNMENT AID TO FARMERS

THE Australian government, scording to cabled advises just received by the department of Commerce from Trade Commissioner Sanger, has decided to assist the pastoral industry this season by a subsidy of one-fourth pence a pound on beef.

The Bounties Act of 1907 provided for rates of bounty averaging about 10 per cent of the market value on ginned cotton, flax, hempjute, sisal, cottonseed, linseed, uncleaned rice, raw coffee, tobacco, dates, dried fruits, and wool tops, with a limitation on the amount to be assigned in any one year to any one product. In 1918 an Apple Bounty Act was passed providing for payment of seven-tenths of a penny per pound on apples grown and evaporated in Australia and sold to the Imperial government.

The assistance granted to the producers of the great Auustralian staples—wool, wheat meat, butter—during the war was quite different from a subsidy. All the wool produced in Australia from the middle of the 1916-17 clip to June 30, 1920, was purchased by the British Imperial Government at 15 1-2c per pound, and paid for, cash on delivery at Australian depots. The Commonwealth government advanced no money at all, but assisted the scheme by prohibiting the export of any wool except through the Central Wool Committee, which managed the Australian

end of the contract with the imperial government.

The war time dairy pool was more like the wool scheme than the wheat, since the imperial government prohibited the export of butter outside the dairy pool, but made no advances to producers. A similar arrangement, but less inclusive, was made regarding meat while the war was on.

In 1917 an interesting hay pool was formed by the government guaranteeing a price on alfalfa. The alfalfa passing into the pool was sold so soon to the Australian army that the government was required to advance but a very small sum.

#### SWISS EAT AMERICAN SWISS CHEESE

THE last three years have wit-I nessed the invasion of the home of the world's most famous cheeses-Switzerland-by the product of American cheese manufacturers, and the Swiss cheeses have had to make room for its foreign relation, according to Consul Murphy, at Lucerne. The consul thinks that perhaps this is temporary, but there is no doubt that the constant improvement of American types of . Swiss cheese has had much to do with their introduction into Swiss and other new markets. Swiss cheese is not made exclusively in large man-ufacturing establishments, but throughout scores of small villages and the uniformity of the various varieties is not obtained by any process of manufacturing but is attributed to a peculiarity in the fodder eaten by the cattle in the various districts.

#### AMERICAN WHEAT UNDERSELL-ING ITAFIAN IN ITALY

Notwithstanding the present unfavorable exchange rates, American wheat is now selling in Italy at much less than what the government is paying for its national grain. However the rest that is being purchased is considerably higher than grain coming from the Black Sea regions, reports Vice-Consul H. Earle Russell at Rome, and there is little doubt that if trade relations with Russia are resumed Italian merchants will for some time confine their cereal purchases to Black Sea regions, at least as long as the dollar exchange continues so unfavorable to them.

#### GOOD AUSTRIAN MARKET FOR AMERICAN FOODSTUFFS

THERE is a good existing market in Austria now for the following commodities: wheat, wheat flour, rice, lard and grease, linseed oil and other oils, frozen beef, canned meat, biscuits, condensed milk, honey, animal tallow, glucose and starch.

#### AUSTRIA IN NEED OF FOOD

THE bottom of Austria's larder is now about visible, according to a report from American Trade Com-missioner Upson in Vienna. Stocks of frozen beef are exhausted and immediate importation must be resumed. This is due to the shortage of cattle as a consequence of the demand of the Allies that cattle be delivered as reparations. There is a big demand for condensed milk and while some American milk being imported, the bulk comes from Holland. Stocks of fats and lard are greatly decreased, about a five weeks' supply remaining on hand. American lard is preferred to other lards because of its good quality and reasonable price. and flour stocks are practically exhausted and purchases must be made from overseas until the mid-dle of July. Because of lack of seed, there will be short crops of wheat and rye, and it is expected that the potato area will be reduced one-third on account of scarcity of seed potatoes.

# Foster Predicts Greatest European Drought

M. B. F. Weather Forecaster Declares Dry Weather Will Ruin Two-Thirds of Crops

of Eastern Continent

W. T. FOSTER, weather forecaster for the Michigan Business Farmer has startled weatherological circles by the announcement that the drought now in progress in Europe will prove the "most destructive European drought that has occurred in 100 years."

"The drought will reach its greatest in June, July and August," says Mr. Foster, "and will be so destructive that not more than one-third of the usual average crops will survive in that vast country covering all Europe from Portugal to Constantinople and all south of the British Channel and the Baltic Sea."

"Six months ago I sent the above forecasts of the great coming catastrophe to 100 prominent citizens of America and Canada, charging them to tell no one. My purpose was that they might be witnesses to the forecasts. I now release them from privacy and ask them to inform all their neighbors, friends and the newspapers about the facts of that forecast. That drough will end during the fifteen days centering on October 8, 1922.

"Another most disastrous drouth will begin in all of Australia during the fifteen days centering on October 30, 1922 and at least two-thirds of the crops of Australia will be destroyed during December, January and February 1922-3. Their crop season is during our winter. From one-third to one-half of the crops in all the East Indias and all of Oceania west of meridian 180 will be destroyed by this great drouth.

"My purpose in all this is to give the friends of my work an opportunity." I advise that wheat will go above \$2.00 a bushel and other grain in proportion, by end of September; that North America must feed Europe. That country, including southern Russia, will need double the amount of help that Russia has needed on account if its recent drouth.

"Now let the critics howl. They can find me in Washington at any time, ready to defend my weather forecasts before the public and this is the time for them to put me out of business. Many years ago they were loud in their denuncia-

SMALLER EUROPEAN WINTER WHEAT ACREAGE REPORTED

The area of winter wheat for 1921-22, in European Countries for which figures are now available, is 31,397,000 acres, according to advice received by the United States Department of Agriculture. This is 1,399,000 acres less than last year. The countries covered are Belgium, Bulgaria, Spain, Finland, France, Poland, Rumania, and Czecho Slovakia.

The total area sown to rye for the season 1921-22, in the same countries, is 18,-808,000 acres as compared with 15,067,000 last year. The increase occurs mainly in Poland where the area sown to rye is 11,-940,000 acres. as compared with 6,872,000 last year. Other countries show small decreases.

tions, but of recent years I have only heard an occasional mouse squeal from them.

"I correctly predicted every drouth that has occurred in any part of the world during the past five years, long in advance. The recent disastrous Russian drouth forecast was published six months in advance. America will come next. A succession of continental drouths lies before us and there is no reasen why the people should not be better informed than ever before on this subject."

Mr. Foster's success in long range weather forecasting is well known. Like all prophets he is liable to error, and the gods of the elements do not always obey his mandates. Nevertheless, thousands of our readers have testified as to the correctness of his reports and their value in aiding them to plan their farming operations.

Those who do not believe it possible to make

long-range weather forecasts are of course, not in agreement with Mr. Foster's prognostications, but he has frequent occasion to silence his critics by saying, "I told you so."

In connection with Mr. Foster's predictions on the European drought we have nothing to add, nor do we necessarily endorse it because it is printed here.

If the drought really reaches the extent predicted by Mr. Foster we shall feel extremely sorry for the farmers of Europe, who lost much last year by a drought which held some sections in its grip for over three months. But such a drought would spell opportunity for American farmers and create a market for an enormous amount of food stuffs.

#### THE HIGH-PRODUCER PAYS

THAT it pays to keep high-producing dairy cows in place of their less productive sisters is clearly brought out in the findings of F. T. Ridell and S. J. Brownell of the M. A. C. Data gathered in the southern part of the state was given to show the difference between the high producers and the low ones.

Seven of the high producing herds were compared with seven of the low producers. In point of money returns from dairy products and the value of the yearly increase in numbers the high yielders were the best business propositions for the farmers. The increase in value of the herd increase stood \$42.75 in favor of the better cows.

Cost of maintaining the poorer cows amounted to \$178.94 while that for the high-producers was only \$157.93. This difference to some extent was due to the lack of efficiency in feeding the poorer cows. Returns from the better herds showed even a greater variation over those of the low-producers. The net returns in favor of the high-producers was \$97.10.—C. E. Johnson, M. A. C. correspondent.

## George B. Horton, Prominent Farmer and Grange Leader, Dead at 77

GEORGE B. HORTON, agriculturist and publicist, died Friday June 2, at his Fruit Ridge Farm after a sudden attack of heart failure. The Fruit Ridge man, widely known over the state through his prominent association with the Grange and by reason of his vigorous and outspoken attitude on all questions of public interest, was aged 77 years. He had been suffering with heart trouble for some time, but his strenuous activity on the farm had kept him fit; he carried his years well, and to the casual observer who knew him he gave every indication of robust health, says the Adrian Telegram.

Mr. Horton was perhaps more widely known than any other man in Lenawee county and his work in the line of agriculture and its allied industries had been such as to bring him prominently before the people of the entire state and frequently of the nation.

He was born in Lafayette township, Medina county, Ohio, April 7, 1845, the son of Samuel and Lucina A. Horton. \* \* \* Samuel Horton came to Michigan in 1853, settling in Fairfield township, Lenawee county, where he commenced the manufacture of cheese for the general market. He was considered the pioneer cheese maker of the state, and was very successful in this field. He died in 1873, leaving a farm of 469 acres of choice land, two cheese factories and other proportionate wealth.

George B. Horton was aged but six years when his parents took up their residence in Michigan. He attended the neighboring district school in Fairfield township and after completing the course there attended a few terms at Adrian College and at Hillsdale College.

He early evinced a liking and natural ability for the business which his father had so successfully established and after his college work he

pated in the conduct of the farm. At the death of his father he assumed all the responsibilities of the farm and the cheese business. He purchased the interests of the other heirs to the estate and had since lived on the farm originally purchased He added to it, however, until his estate now includes more than 1,400 acres of land in Fairfield and Seneca townships. He was particularly interested in farm forestation and three pieces of woodland on the farm at Fruit Ridge stand as one of the finest specimens of its practice in the middle west. Bits of Michigan's great timberland preserved, these acres of stately woods were the pride of his heart. They were monuments not only to the untiring forces and processes of nature but as well as to the far-sighted policy of a farmer and a son continued through half a century of sweeping change and innovation. Covering in all some 130 acres of land the timber could be cashed in for perhaps innovation.

#### Was a Leader in Civic Affairs

In addition to his farming, Mr. Horton found time for an almost unlimited amount of outside work, seeming to seek his recreation in doing something that would be of lasting benefit to his neighbors, his county and his state. He was a great lover of rural life, and was prominently identified with all movements and societies pertaining to farming. He joined in the Grange movement at outset, became a charter member of Weston Grange, now known as Fruit Ridge Grange, and served as its master for 38 years and held that chair at his death. From the first he gave the movement his best thought and effort and contributed liberally in time, labor and money toward building and furnishing Fruit Ridge Grange hall, which stands on his farm, and which

is one of the most complete halls in the United States. Its large library, museum, stage equipment and general program work make it one of the strongest educational forces in Fairfield and surrounding townships.

Mr. Horton assisted in organizing the Lenawee County Pomona Grange and was its master for six years. In state Grange work he was also active. In 1892, after serving six years on the state Grange executive committee, he was elected its Master and served in that office for 16 years until 1909, during which time the organization underwent great expansion in membership and effort. At the time of his election as Master of the State Grange there were 210 subordinate granges in Michigan, and when he retired from the chair 749 had been chartered with dues fully paid and with a total membership of about 50,000 farm people.

Mr. Horton was an organizer of the State Dairymen's Association and as its president and as Master of the State Grange he was a prime mover in the demand for pure food regulations in Michigan.

It was his original idea to so concentrate and crystallize the general complaints of the people regarding the inequality of State and local taxation as to give the matter such prominence as a public question as to force its recognition and consideration by political parties and the Legislature of the State. In the furtherance of this plan, in his first annual address to the State Grange, he urged the appointment of a tax statistician by authority of the state to collect and compile such data regarding assessment and collection of taxes as might form a basis for laws compelling justice in the matter. The State Grange was the chief promoter of equal taxation and the prominence of (Continued on page 23)

# Many Farmers Enroll For Horseshoe Contest

Indications are that Nearly 50 Counties Will Hold Tournaments to Pick Champions for District

and State Meets

INTEREST is keen in the horseshoe pitching tournments which the Business Farmer will put on this summer in co-operation with the county agents and the several farm organizations. Scores of farmers are enrolling for these tournaments through the Business Farmer and others are signing up with their county agent. makes no difference, but all who intend to throw the shoes at the Farm Bureau, Grange and Gleaner picnics this summer should by all means enroll through the Business Farmer or their county agent so that they may qualify to pitch in the district and state tournaments if they win the county championship. The enrollment blank is published again in this issue for the convenience of the horseshoe twirlers. Use it.

Since the announcement of the tournament was published in the May 27th issue a number of other county agents have signified their desire Writing to assure us that Charleto co-operate. voix county will be among the boosters, county

agent B. O. Hagerman, says: "I have not seen many of our men playing horseshoes. Perhaps it is because their barn-yards are so hilly that unless the stakes were placed in the gully they would roll away from instead of toward the stake. Please send us a few more copies of the rules and we will endeavor to put this across in such a manner that such men as Drake, Nash, Eaton and Kittle will realize that they are mere infants in the proposition and still in the Bush League."

Mr. F. L. Simonton, agricultural agent of Berrien County, pledges his support as follows:

Horseshoe pitching is one of the regular features on the program of the Berrien County Farm Bureau Picnic. This feature was started with us last year. We would like about 50 copies of the National Rules, if you can spare that many. It is very likely that some of our men will wish to compete in the contest. At any rate they will be in practice in preparation for the picnic."

Kalamazoo Comes In

"Sure we are on!" says R. L. Olds, agricultural agent at Kalamazoo. "We now have two ringers to the good. I am very much pleased with your horseshoe pitching tournament. We feel that we will have at least two champion teams in this county. We are planning on having a county tournament at our mid-summer picnic. Please send me twelve copies of the National Rules. Thanks for this splendid opportunity."

Wayne Farm Bureau Favors Contests

O. I. Gregg, of Wayne County referred the tournament idea to his executive committee and received full authority to go ahead. "From indications throughout the county," says Mr. Gregg, "the other territories will have to hustle."



Here is the big beautiful cup which the Business Farmer will present to the winner of the state Horseshoe Pitching Tournament, through the courtesy of the Union Malleable Iron Co., of East Moline, Ills. It's a dandy which anyone will be proud to own. This cup is now on exhibition at the Business Farmer office at Mount Clemens. In addition to the cup a set of four nickel-plated regulation size horseshoes will be presented to the champion team in each county.

Clair Taylor, agricultural agent of Newago county, assures us of his hearty co-operation, as do also our good friends, Keats Vining, of Kent county; Alfred Bentall of Allegan; Kris Bemis, Mason; T. V. Sheap, of Shiawassee; F. M. Bennett of Barry County; and Jas. L. Kraker of Benzie.

A number of local Granges have also signified their desire to hold tournments in connection with their picnics. Among these is Unity Grange, No. 868, Swartz Creek, Mich. Several individuals also have written for copies of rules in order to practice up for local contests. In all cases, where two or more tournaments are held in any one county, every effort will be made to play off a championship game between the winning teams before the district and state tournaments. We are anxious to see the Granges, Gleaners and Farmers' Clubs participate in these tournaments, either in conjunction with the Farm Bureau tournaments or separately. All organizations which are planning on holding tournaments should immediately advise the Horseshoe Editor of the Business Farmer so that local elimination contests can be arranged.

New Rules Are Out

Hundreds of copies of pitching rules have been sent from the Business Farmer office to horseshoe pitchers all over the state. Since then there have been some slight changes made in the rules and copies of the new rules are now available at Play the game right. Fill out the this office. coupon below and forward at once for a copy of the new rules. They are free.

The National Rules fix the size of the horseshoes to be used in legal tournaments, the pitching distance, etc. All these will be described and pictured in a later issue.

#### ENROLLMENT BLANK

Horseshoe Editor, Michigan Business Farmer, Mount Clemens, Mich.

Dear Editor: Please enroll my name in your horseshoe pitching tournament, and send me a copy of the national pitching rules.

Name		
Town	R.F.D	
Township	 	
County		

## **Experiments Show How Proper Spraying Increases Potato Profits**

TN 1921 Michigan produced 27,000,000 bushels of potatoes, ranking 4th in the U.S. in total From a monetary standpoint, production. the crop was 3rd in Michigan, only corn and hay having a higher value. This money was the returns on a crop which averaged 80 bushels per Occasionally a farmer, by an extra investment in fertilizer and bordeaux harvested a crop which was more than double that of the average grower.

The value of commercial fertilizer is pretty well established, but there are far too many potato growers who after the plants have been given abundance of plant food, neglect to protect the potato plants, in the belief, possibly, that "spraying does not pay." Growers should not lose sight of the fact that the greatest returns from commercial fertilizer hinges to a very great degree on thorough and proper spraying.

While there is still time to buy equipment and supplies necessary for the 1922 crop, it may be worth while to show why the extra work of spraying with bordeaux returns such great profits and to give some figures taken this past year on crops harvested in 1921.

Bordeaux spray serves two purposes. First, it tends to prevent blight if applied correctly and regularly. Second, it repels insects such as the leaf-hoppers, which are not affected by poison, such as Paris Green and the Arsenates, applied to the leaves, because they suck the sap from the leaf instead of feeding on the leaf tissue.

How important the leaf is to the potato plant becomes plain when we learn that the leaf is the chief agency in tuber manufacture. The potato is a starchy product. All starchy products are necessarily manufactured in the leaf of the plant from food elements sent up by the root system. Thus the amount of leaf surface cannot be reduced without reducing the crop yield. In fact, the healthy potato plant has an enormous leaf surface, exceeding any other common farm crop, and every leaf is valuable.

By G. E. CULVER Assistant Experiment Station, M. A. C.

Spraying, then, with bordeaux tends to protect the leaf of the potato plant from blight and from the ravages of the leaf-hopper so that the plant can function to its full capacity. Regardless of an abundance of plant food in the soil, an optimum amount of moisture, and an excellent root system, the yield of tubers will be below normal to just about the extent that the leaf surface is reduced. To secure a maximum crop, keep the leaf surface green and healthy with bordeaux.

Some figures are given below showing the returns from sprayed and from unsprayed fields. These figures were taken on 22 farms in the potato region where the Farm Management section of the Michigan Experiment Station has been working in direct connection with the farm operator. Six of the farms are in Montcalm, 7 in Antrim and 9 in Emmet County. The 22 farms have been divided into three groups.

Group I. includes farms on which power spray ers for applying bordeaux were used. Group II. includes farms where bordeaux was applied with knapsack sprayers, having much less pressure than power sprayers. Group III. includes farms on which no bordeaux was used, poison only being applied to the vines. All 3 counties aré represented in each group.

Total Yield Av. per Acre
11,711 bu. 207 bu.
5,836 bu. 146 bu.
12,851 bu. 112 bu. Farms Acres
6 56 1/2
5 40
11 115 Group III.

Applications of bordeaux were made 4 to 6 times during July, August and September. An average days work was 10 acres. A second man may be required to prepare the bordeaux.

The cost of the copper sulphate and lime for making bordeaux was as follows:

Farms Acres 56 1/2 5 40 Cost \$202.63 23.52

By no means should the figures given above be construed to mean that fertilization is not profitable, and to answer some of the questions which will be asked regarding the effect of commercial fertilizer on these yields, some figures are given regarding the amounts used. Fortunately a check plot was kept on one field (farm 17) to which fertilizer had been applied. Below are listed the farms on which fertilizer was used and the amounts applied.

In group 1, farm 18 had the highest yield of the 22 farms, with farm 17 the next highest. On farm 17 fertilizer was applied to the field uniformly. Four (4) rows, extending across the field, were left unsprayed as a check. These unsprayed rows yielded at the rate of 71/2 crates per row, or 173 crates per acre; the sprayed rows along side yielded at the rate of 121/2 crates per row or 288 crates per acre. The entire field of 9 1-4 acres yielded 2660 crates, a crate being approximately one (1) bushel. This increased yield on farm 17 of sprayed over unsprayed rows was not due to coincidence nor chance, since farm 18 in Group 1, was in the same neighborhood and, without fertilizer, had a very high yield, while 6 of the farms in Group III, without fertilizer, were in the same neighborhood, and had a much lower yield.

Some figures on labor spent in potato culture are given below, showing man hours and horse hours for the season and per acre. Theoretically the M. H. (Man Hours) per A. in Group I. and II. should agree, likewise the H. H. (Horse Hours) in Groups II. and III.

Group Acres Total M. H. Av. per A.
1. 56 1/4 4350 77.0
II. 40 3096 77.4
III. 115 7856 68.3 5142 2056 6269

These figures are necessarily variable since one cannot expect the teams (Continued on page 16)

# N. Y. Dairymen Control Marketing of Products

Dairymen's League Co-operative Ass'n, Inc., Has a Membership of 70,000 and Handles a Business of Over \$5,000,000 a Month

By GILBERT I. STODOLA



President and Master Mind of the N. Y. Dairymens' League Co-operative Association, Incorporated

THE Dairymen's League Co-operative Association, Inc. is just completing its first year of successful operation. The story of what it has accomplished should be of the greatest interest farmers where, for it has proved beyond doubt that a farmer's co-operative organization can be successful if it is operated on a sound business basis and has directing its activities men of the necessary business training and experi-

ence, co-operating with a staff of experts. The success of such an organization, having nearly 70,000 active, producing members on its lists, and transacting a monthly business of between \$5,000,000 and \$6,000,000 a month, should serve as a great inspiration to existing or prospective farmer's associations, not only in Michigan but in every state of the Union.

This remarkable organization is the outgrowth of the old Dairymen's League, Inc., of New York State whose origin may be traced back nearly twenty years. Way back in 1903 there was talk among New York State dairymen of forming some kind of an organization to improve selling conditions. At that time the industry of the state was in very poor condition. The cow population was dying off and the dairy farmer was making the barest kind of a living. For of course as in other sections where the dairymen are not organized, they were compelled to accept any price that was offered by the buyer for milk. Nothing come of the idea, however, till 1907, when a mere handful of farmers organized the Dairymen's League, Inc. The organization grew gradually, till in the fall of 1916 it had a membership of 13,000.

By that time the League felt that it was strong enough to demand that it be given some say in the price that its members were to receive for their product, and not be compelled to accept anything the dealers offered, irrespective of whether that price gave a fair return to the producer on his investment, or even meant producing at a loss. The action of the League gave the dealers a severe joit. Here was an unprecedented situation—the producers were actually demanding that they be consulted in regard to the price they were to receive for their product. But

LEARN A LESSON FROM NEW YORK

THIS is the first of a series of articles on the marketing activities of the New York dairymen, written by Mr. Stodola exclusively for the Business Farmer. Other articles will discuss, "The Pooling Plan," "How the League Manufactures Milk Products in Its Own Plants," "Educational Work with the Public," "Co-operative Buying," "Selling Ice Cream without a Sales Force." Be sure to read these articles and call them to the attention of your neighbors.—Editor.

the dealers refused to agree to the figure the dairymen submitted as a fair price.

As a result what was known as the "milk strike" came about, during which time the dairy farmers held back their milk for two weeks. Of course the affair caused more or less excitement, some unthinking people condemning the dairymen strongly, accusing them of thus directly inflicting great hardship on city dwellers, and especially the babies, by withholding the milk.

But of course there was the other side of the question; that the babies of the country were also to be considered and that it was unfair to ask the farmer, who also had a family to support, to sell milk at less than the cost of production. Many city people do not seem to realize that if the dairy farmer cannot make a living out of dairying, he will cease to produce more than he requires for his own needs, with the result that one of the foods most necessary for the well-being of the city dweller will, through the operation of the law of supply and demand, not only become scarce, but high in price as well.

The dairymen and the dealers finally came to an agreement, however, and after 1916 the price which the members of the League received for their product was determined by conference between the dealers and the League officials.

In due time came the World War. There was of course an enormous demand for milk and milk products, immense quantities of which were shipped abroad. As a consequence there was a corresponding increase in the manufacture of condensed milk and other dairy foods, till the storehouses were packed full. The manufacturers acted on the belief that Eureopean countries, having destroyed many of their dairy cattle, would have to turn to this country for dairy products after the war. Doubtless the manufacturers reasoned correctly. (Continued on page 16)



Con modious Headquarters of the N. Y. Dairymen's League Co-operative Ass'n, Inc., at Utica, N. Y., where a \$5,000,000 a Month Business is Transacted

## Michigan Sugar Beet Acreage For 1922 Drops Thirty Per Cent

A CCORDING to Facts About Sugar, journal of the American sugar producing interests, the acreage contracted to sugar beets in the state of Michigan is from 25 to 30 per cent less than the 1921 acreage. In no other state with the exception of California has the loss been so great. In some sections of California fully 50 per cent less acreage has been contracted for this year than last. A complete report of sugar beet acreage for the current year as taken from the above named journal follows:

"Incomplete reports from beet sugar companies in various parts of the United States indicate that there will be a falling off of from 25 to 30 per cent in the country's sugar beet acreage this year, as compared with 1921, says a statement issued by the United States Sugar Manufacturers' Association. The decrease will be generally distributed over the beet growing states, some falling off being indicated by the reports in all sections where the industry exists.

"With contracting of acreage but just completeed, and planting much later than usual, data on which to base an exact estimate of the probable acreage is not yet available. The following, however, is a summary of conditions in the principal producing areas, as shown by the information collected.

"The largest falling off is reported in California, where it is estimated that the acreage will

not exceed 50 per cent of last year's. Weather conditions in most sections were adverse during the planting season, on account of the unusual amount of rain, and cold weather following the rains tended to retard germination of the seed. As a result of the marked acreage decrease, it is expected that five of the twelve California factories will not work this year. Three of the five are Tracy, Chino and Southern California, which were idle last season; the other two are Manteca and either Huntington Beach or the Dyer plant at Santa Anna, both of which belong to the Holly Sugar Corporation.

"In the Utah-Idaho territory, taking it as a whole a decrease of about 22 per cent in acreage is expected. Planting is from three weeks to a month late, but recent reports say that the weather is exceptionally fine, and what seeding has been done has been accomplished under the most favorable circumstances as far as preparation of the seed-beds is concerned. From present indications it is probable that all the factories in these

two states will operate.

"Colorado, which in recent seasons has stood first as a producer, will have an acreage about 20 per cent smaller than last year by latest advices. Weather conditions with respect to planting are reported excellent, and frequent showers in most sections produced unusually good seedbeds, but in general the season is said to be about two weeks late. With the exception of the La-

mar and Las Animas plants, all the Colorado fac-

tories are expected to run. Lamar has been idle for several seasons and Las Animas did not operate in 1921.

"In the northern Rocky Mountain section, comprising Montana and Wyoming, the decrease in acreage will be only about 20 per cent as comterritory have been excellent for planting, and pared with last year. Climatic conditions in this late snows have assured a sufficient water supply for irrigating purposes. Operation of all four factories in these states is planned.

"Coming to the Eastern beet territory, reports from Michigan, while incomplete, indicate a probable falling off in acreage of from 25 to 30 per cent. Delay on the part of the companies in putting out their contracts, due to the uncertainty of the market outlook, has combined with unseasonable weather to delay planting operations, and weather conditions have only been fair. Notwithstanding the large acreage decrease anticipated, only one factory in Michigan, that at Lansing, is reported as unlikely to operate in the coming campaign.

"Conditions in Ohio appear to be more favorable than in Michigan, but reports indicate a probable decrease of between 10 to 20 per cent in acreage. One of the companies operating in this state reports that the usual number of growers are planting this year, but that they are putting in smaller acreages. Weather conditions are said to be fair in beet growing districts, with considerable moisture in some sections."



# armers Service Bureau



DUTIES OF SCHOOL COMMIS-SIONER

Although the county school commis-loner has no jurisdiction over city chools the people of the cities help to leet him. This does not seem fair to the ural people and many are dissatisfied. Iow can this be remedied? There is alk of consolidation here. Would be lad to hear from mothers in consolidat-d districts.—Mrs. G. B. K., Sodus, fich.

The only way to remedy the mat-ter in question would be to change the law governing the election of county school commissioners. The county school commissioner is, at the present time, a regular county officer and is elected as such. A large part of the work he does in connection with city schools is of a clerical nature, the examination of teachers, the holding of teachers' institutes, etc.-G. N. Otwell, Dept. of Public Instruction, Lansing, Mich.

#### WATERPROOFING BASEMENT

I have a basement with floor drainage and in times of high water it backs up and runs in. I want to put a cement floor into it. Is there any kind of stuff that I can mix in the cement for water-proofing, and what is the best and cheapest? I was thinking of putting on one coat of concrete and then painting with coal tar hot and applying another coat of concrete, but I am not certain that would hold the water out.—R. G. L., Midland, Mich.

The best water-proofing which can

The best waterproofing which can be done for the ordinary Job with concrete is the concrete itself. An ordinary thickness of floor made in the proportions of 1 of cement, 2 of sand and 4 of gravel, thoroughly mixed and placed, will produce quite an effective job. However, there are many ways in which one not accustomed to doing work of this kind may fail that even with the most careful directions an absolute watertight job cannot be guaranteed. Perhaps a surer way of getting a waterproof would be to make a floor about 4 inches thick of the proportions I have suggested above, then cover this floor with several layers of tar paper lapped one-half and thoroughly mopped over with hot asphaltum and also lapped to the side walls of the basement. After this is put on another thickness of floor, perhaps, not more than 2 or 3 inches can be applied. It perhaps should be said here that the side wall can be plastered quite effectively with a plaster mortar made of 1 part cement, 2 parts sand with about 1-10 as much lime by weight in the mortar as cement. With tar in the mortar as cement. With tar paper lapped over this plaster and an inner coating or thin walls of cement applied high enough to protect the tar paper a reasonably watertight job will be secured. It is hardly practical to use waterproofing compounds for a job of this kind as its success depends as much upon the joints as it does upon the material itself .- H. H. Musselman, Professor of Farm Mechanics, M. A. C.

#### HYDROPHOBIA

If a dog bites a person in the winter and then contracts hydrophobia the fol-lowing summer, would the person also contract this disease?—C. P. L., Rhodes,

Will say hydrophobia is caused a definite organism which inoculates the wound at the time of the bite, and as the period of incuba-tion of hydrophobia is limited, it would be very improbable to sup-pose that the animal was infectious some six months before the disease was manifest; consequently, I should answer your question in the negaive.-Michigan Department Health.

#### HIGHWAY CUT CLOSES FARM ENTRANCE

I have a valuable piece of property close in to city and the county road is putting a cut in front of my house and barn 16 feet deep, and it leaves me no way of getting out or in without climbing stairs. This cut goes the full length of my place and I am cut off from the highway entirely. Is there any way to compel them to give me an outlet or could I collect damages?—A. D. Petoskey, Mich.

There is nothing in the law which specifically compels the Board of County Road Commissioners to pro-

County Road Commissioners to pro-

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

vide such an outlet, but I know of no condition such as this which has arisen when the Board of County Road Commissioners would not cut a driveway into a man's premises so that he would have a way of getting in and out without going to an enormous expense himself, as the earth can usually be used elsewhere in the roadway and moved at less expense by the municipality than it could be by the property owner.—Harry N. Partlow, State Highway Department, Lansing, Mich.

#### GONE, BUT NOT FORGOTTEN

Will you please try to locate my husband? We were married ten years ago in Port Huron and went to live in Indianapolis. He left me in March, and I don't know where he is. He is a saw-smith and is probably working in some saw factory. He is 50 years old, has dark bulg-ing eyes, fase teeth, brown hair. I need his help, as I have suffered a paralytic stroke and am not able to work. I would be very thankful if the M. B. F. readers will help me locate my husband. His name is Geo. Parkin.-Mrs. Nellie Parkin, Goodells, Mich.

#### THE SOO LOCKS

Is there a free tonnage thru the Sault Ste. Marie locks? If not what is the tonnage? How much did the locks cost and what is the cost per year to maintain them?—F. M., Petoskey, Mich.

From 1855 to 1881 when the Soo locks were operated by the State of Michigan tolls were charged for locking vessels thru the canal, and a total of \$797,988.67 was collected from this source. In 1881 the U.S. government took over the Since then no charge has

been made for the use of the locks. The total cost of the locks and improvements from 1855 to 1921 was in round numbers \$30,000,000. The annual cost of operating and repairs runs from \$125,000 to \$160,000.—

#### COVERT ROAD PETITIONS

There is a summer resort started near here and they are talking of putting a road through under the Covert Law. Would the lots owned in the resort count the same as farms along the highway in making the per cent as they would have to have so many to sign and quite a few of the lots lay along said highway but there are no buildings on them?—L. J., Gowen, Mich.

The statute specifically provides that the petition must have the signature of more than 60 per cent of

nature of more than 60 per cent of the abutting property owners, owning land abutting the highway to be improved, therefore, the terms of the act specifically includes the owners of lakeside lots, and their property would count as frontage the same as any other property.

Do not misconstrue the above expression, the term 60 per cent means 60 per cent of the property abutting the highway and not 60 per cent of the owners in number, the term referring to linear measurement of frontage rather than people.—Harry N. Partlow, State Highway Department, Lansing,

14 STORIES IN MAJESTIC BLDG. To settle an argument would you tell ne the number of stories in the Majestic uilding at Detroit.—C. D., Standish,

Mich.
The Majestic building is fourteen stories high. It was Detroit's first "skyscraper." Today there are a score or more buildings in the city of much greater heighth .- Editor.

CLOVER, ALFALFA AND BEES

Will you please inform me if Hubam clover and Grimm alfalfa will produce seed in a dry country where there are no bees to fertilize the flowers?—B. C. N., Lawver, Wyoming.

While bees are important in aiding in the pollenization of Hubam clover, they are not necessary in securing the setting of seed. Many other insects and the wind aid in carrying pollen and accomplishing fertilization.

Alfalfa is largely self-pollinated. The flowers are tripped by heat; the bees and insects are not necessary in the successful pollination of alfalfa.

In the case of Hubam, the presence of bees working in numbers will undoubtedly increase the yield of seed but they make comparatively little difference in the seed yield of alfalfa.—J. F. Cox, Professor of Farm Crops, M. A. C.

#### HAVE YOU SEEN THIS MAN?

To the person sending me information that will lead to the recovery of my Ford Touring car, Michigan License 256,025 stolen on the night of May 21st, '22 by Herbert E. Letson, and his arrest and conviction upon this charge, I will pay a cash reward of twenty-five dollars. Herbert E. Letson is a man of 26 years, has light wavy hair. blue eyes, weighs 170 pounds, height 5 ft. 10 inches. When last seen he was wearing a soft brown felt hat, a light brown suit with a faint red stripe, and a pair of reddish brown shoes. In manner he is cool and self-possessed. I have reasons for believing that he has hired out again to some Michigan farmer, claiming the car as his own. He even may be living under my name (Grover G. Bates) as my driver's license was in the car when he left with it.

If a man answering this description has come or does come into your community since May 21st driving a Ford touring car (year 1919) inves tigate quietly and if the car has li-cense plate No. 256-025 commun-cate with me at once by long distance telephone (charges reversed). My telephone number is 229-M Bell System, Vassar, Mich.—Grover G. Bates, Vassar, Mich.

(Editor's Note: —We hope our readers will be on the lookout for this man. Mr. Bates tells us that he placed every confidence in the fellow and treated him like one of the family, only to have his confidence abused in the manner described.—Editor)

#### scriber to P. O. Finally subscriber loses patience and turns to the Cillection department. Result: Two

HE COLLECTION

All sorts of curious things have been dropped into the Collection Box the last few months, and thousands of dollars have been collected for our subscribers from slow-paying concerns, unbusiness-like concerns, and dishonest concerns. It is a strange thing how many business concerns will ignore letter after letter from an individual farmer, but come across in double-quick time when they receive a polite letter from a publication.

Even the United States postal authorities are not immune to the evil of procrasination when it comes to adjusting insurance claims with their patrons. Take that Midland case, for instance. An M. B. F. subscriber ships some farm produce to a firm in a big city. One parcel is lost in the mails. In the course of time,-much time,-the subscriber's claim is paid. Another parcel is delivered to the consignee who refuses it because the goods are spoiled as a result of delay in transit. Subscriber puts in claim. It is acknowledged by the postal authorities. And by the postal authorities. And there the matter rests. After wait-ing long and patiently subscriber writes to postal authorities. But the matter stil rests and shows no sign af awakening. Months pass and so do numerous letters from sub-

weeks later subscriber receives amount of claim and M. B. F. receives following: "I thank you ever and ever so much for helping me in this. I felt I was unnecessarily put off and I still think I was. Will you make a charge for your service and how much. It has been a great help to us and we thank you very, very much." No charge.

That's a part of the service we render Business Farmer readers.

Then there was Mr. Sinclair, who was in a "buggy" business if he himself wasn't "buggy." He advertised to buy specimens of butterflies providing they were of the species described in a certain book which he sold to aspiring insect-hunters, upon condition that the amount paid for the book would be refunded upon reciept of the first sonsignment of butterflies. Mrs. S., bought the book, captured the butterflies and sent them in. Mr. Sinclair kept the butterflies, and wrote Mrs. S., that not a single one of the fifty specimens conformed to those described in his book. Mrs S., appealed to the Collection Box, and this letter went forward to Mr. Sinclair on the next mail, "would you prefer to return to Mrs. S., the amount she paid you for your book or have us turn the correspondence in the case over to the hands of the postal authorities." As quickly as transcontinental fliers could bring a reply, there came a letter from Mr. Sinclair enclosing check for the full amount which was despatched to Mrs. S. The only sequel to this story is that Mrs. S. forgot to acknowledge our services in her behalf, which, you'd be surprised to learn, quite of-

ten happens. But such is life.

These are two cases that come to mind out of several hundred which have been adjusted in the past two months. Others will be discussed in latter issues.

#### DATE OF CHICAGO FIRE

I am a reader of your paper. Can you give me the right year of the great Chicago fire. Some say it was between the years of 1870 and 1875. Would like to learn the correct year. —E. L. B., Manton, Mich.

The great Chicago fire started in the evening of Oct. 8, 1871, was not extinguished until late the following night.—Editor.

#### SIZE OF PULLEY FOR SEPARAT-OR DRIVE

OR DRIVE

I have a problem four other fellows, besides myself have figured on and not two of us have figured it alike. What I want to know is what size pulley I am to get for the line shaft to run my separator 60 revolutions per minute. My engine is 1 1-2 horse and runs 650 R. P. M. The pulley on the engine is 4 in and on the line shaft is 7 in., which runs my milking machine 52 R. P. M. The shaft is 1 1-8 in. and the pulley on the separator is 3 in. Am running direct from the engine to the separator which runs it 60 R. P. M., but at that rate I have to finish my milking before I can separate my milk, as the belt which runs the milker runs on the same pulley that runs the separator.—P. R., Evart, Mich.

I have made the following calcu-

I have made the following calcuwhich give 16 inches as the desired diameter of the pulley on the line shaft to drive cream seperator at 60 R. P. M.

The rule for speed and diameter of pulleys may be used by you if you choose to check up our figures and is as follows: Multiply speed in R. P. M. and diameter in inches together on the pulley for which both are given, dividing by he given figure on the connected pulley, the quotient will be the required speed or diameter of the second pulley. This rule is applied first between the engine pulley and the line shaft The rule for speed and diameter

pulley, figures being as follows: 650 (engine speed) multipled by 4 (engine pulley diameter) and product divided by 7 (line shaft pulley diameter) equals 371.4, which is the speed of the line shaft. Using the line shaft as the drive pulley we then have connected the line we then have connected the line shaft and cream seperator pulley. The product of 1 1-8 X 371.4 divided by the required speed of the cream seperator—60, equals 6.96 or a 7 inch pulley should be used on the cream seperator. If it is desired to change the speed of the line should be used on the cream seperator. shaft rather than the size of pul-ley on the seperator, we will then figure, as follows: 3 (pulley diam-eter cream seperator) multiplied by 60 (speed cream seperator) divided 60 (speed cream seperator) divided by 1 1-8 (line shaft as pulley diam-eter) divided by 160. Where the line shaft is considered the connect-ing pulley you will find this speed to be about right. Then consider-ing the line shaft pulley connect-ed, we have for the engine 4 X 650 equals 2600, divided by the speed of the line shaft—160, which equals 16.2 or say a 16 inch pulley on the line shaft to which the engine is connected.—H. H. Musselman, Professor of Farm Mechanics, M. A. C.

#### POULTRY HOUSE CONSTRUCTION

I have been reading in the M. B. F. in regards to poultry raising and proper housing to prevent draft. I am preparing to build a 3-room house and I dont know how to build to prevent draft and give proper ventilation. I intend to have small doors for the fowls to pass through which will be open nearly all times even in winter. Should each room be ventilated and how is it done? I wrote to you last December in regards to building and got no reply. I won't sign my name this time for my subscription has expired and if I don't get any reply I don't renew.—Reader, Carsonville, Mich.

Hasn't is occurred to you that

Hasn't is occurred to you that possibly your first letter was never received? Thousands of letters are lost every week in the mails. We aim to answer all letters promptly. aim to answer all letters prolingly.

If you will send us your name and address we will send you a set of the plans recently designed by the poultry department of the M. A. C. for a modern and scientifically argued and resulting house. ranged poultry house, which will answer all your questions. Had you signed your name in the first in-stance you would have been spared needless delay.-Editor.

#### FLY REPELLANT

Can you give me a recipe for a spray to keep flies off my cows? A. G., Gen-esee County, Mich.

The following spray we have used as a fly repellant in the college herd successfully for some years. Care should be taken in applying this repellant to put it on in a light spray and not to wet the skin of the animal with it thoroughly as it is very apt to cause blisters and loss of hair

12 oz. crude carbolic acid, 12 oz. turpentine, 12 oz. oil of tar, 3-4 oz. tannin. Make up to five gallons with kerosene.—J. E. Burnett, Associate Professor of Dairy Husbandry, M.

#### LIQUOR LAW VIOLATIONS

Will you please send the address of the state police department to which I can report violations of liquor law.—R. A., Tuscola County, Mich.

Liquor law violations should be Roy promptly reported to Col. Roy Vandercook, director of Public Safety, Lansing, Mich., where they will receive immediate investigation.— Editor.

FUMIGATING STORED GRAINS Is there anything that will destroy and prevent grain eating insects or worms that are in the grain bin, without spoiling the grain for use?—L. A. B., East Jordan, Mich.

The treatment for dried grains containing insects is comparatively easy, providing the grain or seed is in tight bins or barrels, capable of being tightly and quickly closed. Old carpets, blankets, etc., often will be found useful in helping to make the bins tight.

Measure the inside of the bin, counting in the air space above the grain, if the bin is not entirely full, and place some old pans or plates on top of the grain. Then for every cubic foot of space in the bin, put a dram of liquid carbon bisulphide in the pans and quickly close the bin. Thus a pound of the liquid will suffice for about one hundred cubic feet of space or a little more, or for about one hundred bushels of grain. This treatment is far more effective during warm weather than in cold. During severe cold weather the insects are dormant and resist the action of the fumes quite successful-

ly.

If the seed or grain is more than two or three feet deep in the bin the liquid should be poured into it at some depth in order to insure its spreading evenly and filling all the space treated. This is easily done with a piece of gas-pipe fitted with a wooden stick for its entire length. The pipe with the stick in place is thrust down half way to the bottom of the bin, the stick withdrawn and the liquid poured down through the pipe. The stick merely prevents the pipe from becoming filled when thrust into place. The bin should remain tightly closed for from twentyfour to forty hours, a longer exposure is likely to inure the germinative power in some seeds.

The liquid carbon bisulphide, on being liberated, will be quickly transformed into a gas, which being heavier than air, settles to the bottom

and fills all the air spaces between the seeds or kernels. The liquid costs about thirty cents for a single pound, or five pounds for a dollar. The work must be done in the day time, away from lamps, stoves or fire of any sort. No fire must be allowed to come near until everything has been thoroughly aired for the gas or fumes are very explosive when mixed with air. Grain should be shoveled over several times. Great care must be observed to breathe as little as possible of the fumes as they are very poisonous and will as easily produce death among men as among insects.

Stored grains that have been treated with carbon bisulphide have to be aired for a long time to get rid of the odor and for that reason this work is usually left to the miller who has facilities for accomplishing this. However, sufficient airing will get rid of the scent in time. I would say that it is unnecessary to buy carbon bisulphide at drug stores rates which are something like 50c to 75c a pound since exactly the same chemical can be-purchased in fifty pound drums of the Dow Chemical Co., Midland, Mich., for 8 1-2c per

pound, the cheaper material being a little better than 99 per cent pure. This, of course, is in steel drums and the drums have to be paid for although the money is refunded when they are returned.—R. H. Pettet, Professor of Entomology, M.

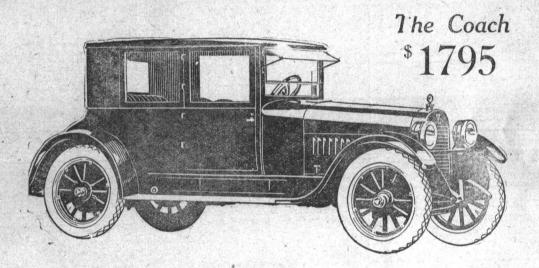
#### LIFE LEASE

Before my husband died he gave the deed of farm to my son, also lease for to take care of father and mother. Father died leaving wife. Now if I go and stay with daughter as my son got married and I would rather stay with my daughter, can I draw some money from the place, a small sum like \$150 or \$175 a year to help me as I am blind and not able to work. If I should marry could I draw some help from the place, my old home I have lived on for 44 years?—Mrs. M. N., McGregor, Mich.

If she has a life lease of the pro-

If she has a life lease of the property she can draw its rental value only. The life lease would give her control of the farm during her life wherever she may be and she would also be entitled to it the same if she should re-marry.—Legal Editor.

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In your last issue your sugges-tion as to Herb Baker as canddate for the United States Senate just struck me right. If there is a man who can from all or woman in Michigan command more votes from all classes of labor I don't know who they are. I never met him nor have I ever corresponded with him, but I have kept in touch with what he has done as a legislator in our own state and his record is clean and always true to the best interests of all the people in Michigan. Here is for Baker, first, last, and all the time. "By their works ye shall them."-P. R. Miner, Saginaw County, Mich.

You have sized Baker up right. He is not a man to play to the galleries. He controls no newspapers to sing his praises to the skies. He does what he thinks is right no matter what the press and the public may say. Every reader of the Business Farmer may feel sure that the press has never exaggerated Baker's qualities. What little praise has been given to him by the Michigan daily press has in most cases been given grudgingly, Michigan farmers will make no mistake to get behind Baker to a man.—Editor.

#### BOVINE TUBERCULOSIS

THE article entitled-"Is Bovine Tuberculosis a Menace to Human Life"—which appeared in the May 15th issue of the Michigan Business Farmer has come to our attention.

It is noticed in your reply to Dr. George H. Ramsey that you state: "I cannot understand, Dr. Ramsey, why if medical science has lished beyond a 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 would be physically possible 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.

I wonder if the enormity of the task which is confronting the authorities who are attempting to eradicate tuberculosis is appreciated. Let us illustrate, using our own State for an example. We have approximately one and one-half millions of c attle, and three hundred veterinarians who have been certified by the State Department of Agriculture as being qualified to conduct tuberculin tests, and most of these veterinarians can devote but a minor portion of their time to tuberculin testing. It would require several years with the present available operators to test all of the cattle in the State once and one test would not eradicate the disease. It would serve to locate the diseased herds, but animals in those herds which had been exposed prior to the test would have to be removed through subsequent tests.

Would a compulsory law at this time help the situation? We believe not. Such a law would be unen-forceable and a farce at the present time, and a law which enforced would hinder rather than assist any project. We have no doubt but that laws compelling the tuberculin testing of all cattle in the State will be enacted just as

soon as enforcement is possible. We agree with you that the work should be performed as soon as physically possible. The Federal authorities and the live stock sanitary officials of forty-seven states are working toward that end now. We cannot agree that dilatory and hap-

hazard methods are being pursued. Thirteen countles in this state have appropriated funds with which to co-operate with the Federal Bureau of Animal Industry and State Department of Agriculture in the campaign for the eradication of tuberculosis from cattle. Work is under way in eleven of the counties and will be started in the other two shortly. Other counties have signified intentions of entering the campaign. Three of the counties practically free from bovine tuberculosis at this time and quarantines have been placed to prevent the importation of diseased cattle. If this work continues at the present rate, does it not appear that soon we will be in a position to enforce a statewide compulsory testing law? There is every reason to believe now that the work will shortly be made compulsory in those counties in which being co-operative campaigns are conducted.

The passage of laws or the appropriation of funds will not bring about the accomplishment of a task which it is physically impossible to complete within the time specified by you. And how could a law be passed and successfully enforced unless its creation had been demanded by the people? The health authorities have long since realized the danger to the human race from infected tubercular milk, but all of the people do not as yet appreciate the danger.

We believe it is the duty of publications such as yours to procure and place before the people the unbiased facts. If you desire an impartial opinion that was the result investigation, I of an exhaustive would suggest that you procure a copy of the report recently issued by the District of Columbia Committee, or Commission.—B. J. Killham, Chief Veterinarian, Bureau of Animal Industry.

We are surely glad to have Dr. Killham's thought upon this subject. In this connection it is interesting to note that the Holstein Friesian Register is publishing a series of articles by a noted German chemist, who raises no question as to the transmissibility of the disease from bovines to humans but does argue that the injecting of tuberculin often starts the disease as well as revealing its presence. Extracts from these articles will be published from time to time in our columns. A frank discussion of the tuberculosis question in all its phases can do no harm and may bring us more light.—Editor.

#### FOR A LAND CLEARING ACT

AM one of the land seeking farmers. I bought of an agent, and things look pretty blue. It's pretty hard for a person to build and clear land and make a living at the same time. Fifteen years ago this land could be bought for \$10 an acre and now they ask from \$20 to \$40 for it. I was in hopes the government would take over this land, for there are thousaands and thousands it going where many a poor person would jump at the chance to get a farm. Mr. Krauth is right in his letter. Many a person needs a helping hand back on this new land. I hope the state will turn a helping hand for 

Yes, it's quite a struggle to hew a farm out of the cut-over wastes of northern Michigan. I have seen many try it and fail. The great trouble is, as you know, settlers make the mistake of investing their last penny in the

#### FROM THE DAY'S MAIL

Editor Business Farmer, Mount Clemens, Mich

Mount Clemens, Mich.

I wish to express my appreciation of the fine paper you are making of the Business Farmer. It is worthy of every farmer's support, and especially the progressive one. You are fighting the farmer's battles the best of anyone.—E. N. Ball, Secty.-Treas. American Tamworth Swine Record Ass'n., Hamburg, Mich.

land and saving nothing to do the clearing. The land is very productive, but it can't be reclaimed from the wilderness without capital.

Not all land owners are as liberal in their treatment of settlers as Mr. Krauth. Too often they wait like vultures for their prey and when the hapless settler's last penny is gone they squeeze him. The state can well afford to stand by the men and women who are trying to colonize the unsettled portions of Michigan and help them get on their feet.—Editor.

THE PRIVATE SCHOOL QUESTION N your January 28th number there

is a letter headed "Farms are no Melting Pot," by Wm. Kerr, Bay County. Mr. Kerr complains of his foreign neighbors not being able to read or speak the American language. Had Mr. Kerr moved to, say Brazil, South America, he no doubt would select a place where other Scotch folks lived or at least English speaking. If any of his friends wished to emigrate there they no doubt would settle near him. Would these Scotch folks, grown men and women, hurry over to the national schools to learn the language spoken there so as to associate and be on more friendly terms with their Brazilian neighbors?

I think in most cases it is the fault of the individuals themselves when they do not learn the language of the country they live in. My parents were German born but coming from different parts of Germany, first met in America. My mother, the eighth child in a family of fifteen, was fourteen years of age when she came to this country. She never attended school of any kind here, yet she could write a better English hand than either of her children. In fact, better than half of the public school teachers.

Of the eleven children who came to the United States five married Germans, yet all that I knew could talk good English excepting one girl who came to America four years before the rest of the family. She lived to be about sixty years old yet talked very brokenly. The same with her husband who lived to be ninety odd years, the last thirty of which were same. thirty of which were spent entirely among Americans, yet he never learned to speak other than very broken English.

I am not trying to criticize Mr. Kerr's letter for I thought it a very nice letter. It is the editor's answer which I did not like.

The editor proceeds to blame the Lutheran and Catholic churches and private schools in particular. Now, know nothing about the Lutherans but being a Catholic I do resent your charge.

The separate school question is a very live question just now. You will find if you investigate that the Catholic Church is very keen on education, more so than the U. S. is for she is much older. But for the Catholic Church, little would be known about the bible times or ancient history. She believes though in educating the heart and the hands as well as the mind.

Of what good is an educated mind where the individual does not know or care to live according to the ten commandments, who considers might makes right, whose conscience is either dead or sleeping?

We have a whole lot of highly educated criminals who want money without work, political crooks, lawdodgers, money grafters and grab-bers who I think it would be easier to get along with and much more agreeable if they had never le the language of the U.S. A public school education I consider a fine thing to possess but it is not a cure all for poor citizenship or being unneighborly.

Our Sisters and Brotherhood orders are doing more to make good worthy conscientious, contented citizens out of the illiterate and foreign element in the poorer parts of our cities than the public schools are. Like Christ, their leader, they are quiet and unobtrusive, teaching the old and the young in all ways they can to help them solve their problems and find a remedy. They

have not the means nor the publicity given the public schools, but they are not working for an earthly wage but for the honor and glory of God and to do his work on earth.

Our Catholic schools are better than the most of the public schools, though in many instances they are hampered by the lack of means and materials. To teach and make the most and best out of the materials at hand is their life work. The wages they receive are usually from one-fourth to two-thirds that of public school teachers but the most of them receive just their living expenses, anything more is used to build and improve their buildings, to help the needy, while the public school teachers, many of which are mostly interested in the wage part of the business and a good many of them are only transient teachers, teaching school until they have money or experience or both with which to follow some other occupation.

It will be worth the editor's time if he visits several of our Catholic schools and gets acquainted with their work. He will find there a more thorough and intensive way of instructing than is used in most of the public schools. Each child's natalents are encouraged.

While in the German consulate at Copenhagen you met a young wo-man who could speak no English. You do not say if you inquired the reason why she could not talk English. There may have been a good reason; such as ill health or something like that. Apparently she was going to Germany to live. If such was the case she would have but little use there for a yankee education. For some reason or other she may have been considered and educated as a German citizen and for some unknown reason was not returned to Germany sooner.

Under a separate cover I am mailing to you several marked articles on the subject of Catholic ideals on education. You may be a very busy man but the time you use to read the articles you will find not wasted.—Mrs. E. A. Breen, Missau-kee County, Mich.

wasted.—Mrs. E. A. Breen, Missaukee County, Mich.

Happy is the man who can make himself understood. In the comment to which you take exception, dear reader, there was not a single criticism of the curriculum that is taught in the English parochial school, and by English I mean the school in which the English language is the class language. The objection was to the failure of many parochial schools located in sections dominated by foreign-speaking peoples to break away from the alien tongue and educate their charges to read and recite in English. You may be able to offer an excuse for a native-born American growing to womanhood without learning a single word of the English language, but I cannot. The parochial school question is, indeed, a live one, but it wouldn't be so live if the schools I mention above taught more English and less German and Polish. You overlook the fact that the Business Farmer opposed the school amendment and got a lot of criticism as a result. You also overlook the fact that the farticle you mention we paid a high tribute to the average settler of alien birth. We have never had any occasion to question the quality of the instruction offered in parochial schools. It may be on a par with that of the public schools, but we question your statement that it is better. The papers were received and read with interest. However, they contained nothing new as we were already familiar with the attitude of Catholies upon education. It is a pity that the school userion cannot be discussed impassively and fair-mindedly without causing super-sensitive persons to feel that their religious rights are being trespassed upon.—

LENNON DISCUSSES INCOME TAX

F we could get the truth about the tax situation in Michigan to the people, the Income Tax Amendment would carry by an whelming majority. I find many business men in the find towns are opposed to it. In every town in which I have been, merch-ants have come to me and said that the matter had en put in the wrong light. That they had been led to believe that this was just another additional tax to pay without relieving the burden upon without relieving the burden upon within property. I have yet to hear without renervative like without renervative like property. I have yet to hear a man say that it is not the most and equitable way in which to put all the wealth of the state on the tax roll.

The whole matter can be put in a very few words. Michigan as far as taxes go, can be compared to a wagon stuck in the mud and five men trying to push it out, while six

big huskies sit in the wagon and give them the laugh. A state income tax will make these six sluggards get out and push.

I felt like Julius Caesar when he id "Et tu Brute" when Jim Helme came out with his knock on the State Income Tax. Truly that was the "unkindest cut of all." He limitasays that the four per.cent tion will net the state but five million dollars. He is fully fifteen million dollars too low in his estimate. But even if what he said were true, if that five million is paid by people who are not bearing their share of the burden would it not be a long and firm step in the right direction. I want Mr. John Lovett, paid hire-ling of the big corporations, and self-styled economist and tax re-trencher" to show us how we are going to do any great amount of retrenching in taxes when the and practically every county many school districts and vil are bonded right up to the limit already. Why the item of interest on bonds in many localities is more than all the taxes amounted to 12 years ago. In the last fifteen or twenty years Michigan has jumped from the 22nd state in the Union in wealth to the sixth. This being true is it not appalling to think that the same old property, namely the farms and homes of the state paying from three to five times the amount of taxes that they were a few years ago.

Where is all this extra wealth at we boast about. The most vital problem confronting the people of this state is to bring this wealth from the secure hiding place it has always had in the rear, up to the front line trenches where it will be forced to keep up its end. If we fail in our battle to bring this about it means that practically all new improvements in Michigan will have to be abandoned for years to come for home owners and farmers have already broken down under the

Michigan stands right at the top of the list of states having the greatest number of renters. Sixty per cent of the population of Detroit is renters. It is true that renters indirectly pay taxes. Any system of taxation that would relieve the burden upon real estate will automatically reduce rents. Every renter in the cities should be heart and soul behind the State Income Tax.-Peter B. Lennon, Genesee County, Mich.

You have stated the situation in a nutshell. We are in a hole just now and the income tax is the rope to pull us out. It is folly to argue about how we fell in or who pushed us in. The main thing is to get out.—Editor.

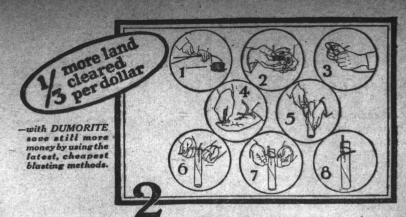
STATE HIGHWAY DEPARTMENT TO PUBLISH ROAD MAPS

The State Highway Department will issue this season, until November 1st, twelve maps showing State Trunk Line roads and detours for trunk line roads. The first issue of this map is of May 15 and thereafter a corrected issue will be sent out on the 1st and 15th of each month, the last issue being made on November 1st. For this service the following charges will be made, a separate map being issued for each of the peninsulas:

1 map Upper Peninsula, 16c; 1 map, 12 issues, Upper Peninsula, \$1.2c; 1 map, 12 issues, Lower Peninsula, \$1.2c; 1 map, 12 issues, Lower Peninsula, \$1.8c; 2 maps, 12 issues, Upper Peninsulas, \$1.8c; 2 maps, 12 issues, Upper Peninsulas, \$1.8c; 2 maps, 12 issues, Upper Peninsulas, \$1.0c; 1 map to subscribers of this service, extrabulletins will be sent covering changes in detours and roads under construction with best routes to avoid construction with best routes to avoid construction with best routes to avoid construction and detours. If you wish to subscribe for this map, please advise this office of the service and maps desired. Payment in advance is desired.—Frank F. Rogers, State Highway Commissioner, Lansing.

#### A STRONG CONCERN

WE are glad to call attention to the last financial statement appearing in this issue of the ance Co., whose messages to farmers have been published from time to time in these columns. As an indi-cation of the strength of the company, Sec. Robb points to the fact that \$47,430.87 was added to the surplus account in the five months ending May 31st. During the seven years this concern has been in business it has become one of the largest of its kind in the entire United States and has made satisfactory adjustment of 8,812 claims to the amount





## Preparing and Loading the Charge

CUT FUSE of a length sufficient to project six inches from top of hole. Be sure cut is made squarely across fuse, not diagonally. Remove one blasting cap from box with the fingers. (Do not use a wire, stick or any other hard implement.) Next, slip cap on end of fuse, and crimp securely with cap crimper. (Clover Brand recommended.)

Punch a hole diagonally in side of cartridge with pointed handle of cap crimper, and insert cap with fuse attached. To keep cap from slipping out, tie a string around fuse and then around cartridge.

then around cartridge.

If the charge is to consist only of the primed cartridge, place it directly in the bottom of the hole made beneath the stump. For a larger charge, slit the other cartridges—unless the ground is wet—press them down into the bottom of the hole, and load the primed cartridge last. Cap should point toward bottom of bore hole.

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

Dumorite, the new du Pont Farm Dynamite, is the cheapest explosive for stumping. You can buy 135 to 140 sticks for the same price as 100 sticks of 40% dynamite—one-third more at no extra cost. Dumorite has the heaving action of "20%" and the strength of "40%," stick for stick. Order Dumorite from your local dealer and write us for free copy of 104-page "Farmers' Handbook of Explosives," which gives full instructions for the use of dynamite in land clearing, ditching and tree planting.

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You want neither your grain nor your ne wasted.

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ample power makes the ideal steam engine.

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Dept. 55 INTERNATIONAL RUBBER CORPORATION Grand Rapids, Mich.





## Laugh and the World Laughs With You

The Story of a Man Who Makes a Business of Making Other Folks Think and Laugh and How · He Does It

The social swim is full of swells. It's a short road that It's a short road that has no detour. The public be jammed in the street cars. All dumbells are not silent. A green salesman sells more than a blue

are dead but they don't lie down.

TOW would you like to make a living by being funny? Charles L. Archbold, who probably holds the world's record for the number of funny things said, de-clares that the "being funny" life is a great one, and that only the first hundred are the hardest.

You've chuckled over his wit as it appears upon the slate of the popeyed school kid, who stands before garages and gas stations. The kid has been standing there for about eight years and judging by the number of folks who are chuckling at him and watching for his latest remark, he probably will be standing there as long as Charles Archbold can hold a pencil and see folks, for he declares that he can keep going just as long as he has his eyes and ears.

The boy giggles at the world in thousands upon thousands of spots the country over, but wherever he stands he says the same thing. said to the fur clad traders under the Artic circle, "What if it does go down to zero—that's nothing!" the very same day that he said it to you, and the fur traders and peeking Eskimos who beg for the boy's translations into their own tongue, laughed as much as you did.

"A joke's a joke the country over," says Archbold, who has written probably some five thousand of them and who is said to have fallen heir to the mantle of the late John Kendrick Bangs. "It doesn't much matter where people live or what color they are, they all have the same human problems and that's why I know that if my joke works on the office staff it's going to work on those folks who go to the Hudson Bay Co's most northern trading post."

Every other day the office staff crowds about it's own boy and blackboard just behind the switchboard, and watches Archbold chalk on his latest. Then Archbold keeps his back turned and listens. If the explosion comes in shattering crashes, if it reverberates and echoes and makes pandemonium until the manager himself peeks out from his lair and gets in on the fun, the father of the day's wit knows that all is well with the world. But if only a polite ripple of hilarity greets his offspring, Archbold just uses water, shows no hurt feelings, and tries an-

Tom Mason says that every humorist should have at least one wife. Charlie Archbold says that it's safer to use the staff as an experiment station. Since the office slate greets all comers to the office, diplomacy must often be used. For instance, the day when it said "Some men send out the con they're in a confer-ence," the information clerk found everybody in that day, and no visitors, even book agents and insurance

men, did much waiting.
"There will never be civilization where comedy is not possible," says George Meredith in his famous essay on "The Uses of the Comic Spirit." If this rings true, our own city must be the most civilized place in the world, for these funny sayings which delight millions of people spring from Archbold's interpreta-

tion of things and folks right here.
"I live and think in epigrams," "I live and think in epigrams," he says, "I Listen to girls on street cars. I go to dances just to look around and listen. I join clubs and get all the social life I can. I read much, especially popular magazines and books which the mass at large is reading, for my thoughts. I realthat the things that may make folks laugh will do so only as they are in tune with the thinking and doing of the times. I must realize I am not trying to be funny for any class, but for just the passing mass."

It was a public dance that made Charlie's boy say soon after:

By ALLENE M. SUMNER

"Some love to dance; others dance

to love," and
"The future of the shimmy is

It was a visitor who simply would not go home one evening that made

boy say "Some folks who are wound up

never ge."

says the big hit of the hour is still prohibition, with automobiles a close second. His most quoted prohibition wheeze appeared on the slate, the United States over on a certain famous July 30. It read, "Tomorrow is the Thirsty First of

This was followed with: "Drink to me only with thine eyes.

Later prohibition hits were: "Prohibition agents find much whisk in whisky."

watched still never brews." "Too many crooks spoil the brew."

His liberal use of familiar verbs and epigrams which he turns into something different proves Bergson's statement that a comic effect is invariably produced when an

unexpected or absurd idea is fitted into a well established phrase form."

"Arch" also develops Bergson's idea of a comic effect obtained when ever one takes literally an expression used figuratively these. used figuratively thus:

"They call it free verse, yet it is often penned."

"You won't be great by using a hammer just because Washington used a hatchet."

"Even the fellow who invented spaghetti used the noodle."

We must clearly state, however, at "Charlie" or "Arch" as he is most often called, makes no claim to formulating his wheezes according to any philosophy of laughter and mirth. He tells his story something

like this: "I am a Hoosier product, born and educated in Indiana, where I stayed until quite a youth. I was in business with my father in a grocery store when a macaroni company whose goods we handled offered a prize for the best slogan. I won the prize, fifteen or twenty dollars, I prize, fifteen or twenty guess, and then a Chicago trade paper wanted me to prepare a page of specimen ads which they syndicated. From then on I was in advertising work. The one basic principle I have always used in ad work was given to me by an old man of the game. I once heard him say that most people write long letters because they haven't time to write

that I thought of writing snappy sen-

twelve words which people could read as they passed in an auto or car. In 1914 we started with ordinary white paper and black crayon. But wind and rain made this impractical. Then we had a sign painter paint the dope on muslin, but this was expensive. In 1917 we made the grinning school boy with his huge slate, and he seems to be tak-ing all right."

glimpse through this wheeze maker's scrap book tells what modes ty forbids him to say. It tells how his jokes are sweeping the country and proving one of the biggest advertising stunts of the age.

There are letters from ministers, actors, politicians, governors, and senators asking permission to quote There are clippings of world famous addresses enlivened with the patter of the grinning school kid, and there is more human matter,

This from a woman in the far west, was forwarded from the local garage man to whom it was sent. (most people think that the local garage man is the author.)

"Dear sir: Last Sunday I was running for a car and missed it. I was furious and just then happened to see your sign which said: 'Many run fast enough, but not soon enough.' It made me cool off but it seemed almost uncanny to have it appear at that very moment."

Another garage man sent him

"Hello, Arch! You almost got our town into a free-for-all fight last week. You know your sign about 'Girls will be Cirls, and so will old women.' Well, it seems that on the very day that went up some ladies' aid was holding an indignation meeting about the way the girls of the town were carrying on. Right after the meeting they passed this place, and when they saw the sign they got fighting mad and accused us of putting it up because of the meeting. Tney got the town marshal and we had to show him our date release and letter from headquarters to prove it had been on schedule for weeks."

And this one which might seem (Continued on page 21)



# EDITED

BEFORE we take up the making of a vacuum tube receiving act

of a vacuum tube receiving set are several different things we should know about radio receiving; these we will take up now and again later in the season add a little to our working knowledge.

The tuning coil that we described

in a previous issue is used for the tuning of the incoming waves to the particular wave we wish to hear; however, a small tuning coil is not very "selective", as all stations that are transmitting on the same wave length and are within your receiving range are heard at the same point of tuning on this coil; also stations that may be on a slightly different wave length. When you consider that there are hundreds of stations now broadcasting on 360 meters, that should you be where you could hear two or more of them you would lose all the pleasure of receiving if you heard both at the same time. This is what you would have if you should have a vacuum tube detector with a tuning coil, but should you use a loose-coupler or variometers then you could select the one station that you wished to hear and not listen to the other one at all.

Strange to say that although all these stations broadcast on 360 meters, not any two of them are tuned to exactly (and when I say exactly I mean exactly) 360 meters. Some are 360½; others are 359 or 361, and only with an instrument that will give you the exact tuning can you select the one that you want.

A loose coupler is made from two

senarate coils, each tuned in turn to the incoming wave, and by separating the coils to a certain degree one can tune to an exact wave length. We will describe the making of such a coil in a later article, as the sharper and more selective tuning is necessary with a bulb detector.

A variometer is a combination of two coils, one of which revolves within the other and connected together so that the wave length is changed from zero to the full amount of both coils. This is caused by the fact that the incoming waves of one coil can be made to oppose the other and so have a zero wave or by adding the wave length of one coil to that of the other gradually the full wave length of both coils can be used. A variometer will give sharper tuning with less adjustment than a loose-coupler but until one becomes accustomed to it, it is a little harder to tune with as it will tune very sharply. The best radio tune very sharply. The best radio receiving sets made now days all use variometers in various forms, all of which work on the same principle.

A vacuum tube detector is a detector which uses a highly exhaust-ed glass bulb in which are mounted three elements, a filament, a grid and a plate. These so-called tubes or bulbs are made by a special pro-cess which exhausts all the air, and in some makes of tubes there is a little gas of a secret nature admitted; these latter tubes are called "soft" tubes as they are a little more sensitive than the "hard" tubes which contain no gas.

The filament of the ordinary tube heated by an electric current of volts, generally secured from a storage battery or ordinary dry cells. The battery for this purpose is called the "A" battery.

If a seperate battery of 221/2 volts is connected see that the positive end is connected to the "plate" of the vacuum tube and the negative of the battery to one of the termin-als of the "A" battery or filment and the current turned on of the "A" battery so that the filament is heated, then across the space be-tween the filament and plate (in the tube) a small current will flow, the hotter the filament the more current will flow up to a certain point. The battery connected to the plate and filament (in series with a telephone) in a radio receiving set is called a "B" battery.

The "gird" in the vacuum tube is

connected to one side of the tuning set and the filament to the other side of the tuning set. In this manner the gird acts as a valve and so controls the flow of the "B" battery current from the filament to the

This gird is usually a coil of fine wire placed between the filament and plate and so arranged that it effectively controls the flow of B battery current, the slightest addition or subtracion of an elecric impulse on the gird permits more or less B battery current to pass across the space between filament and plate and thru the telephone and makes this form of detective very much more sensitive than a crystal for detecting weak radio signals.

#### CRYSTAL SET PICKS UP OCEAN LINERS

I have owned and operated a radio receiving set for about three years, using a 3500 meter loose coupler, crystal detector, or .001 M. F. D. varible condenser which can be switched in or out of service with primary circuit and a like condenser in the secondary circuit. I started out with all instruments separate but have since rebuilt the outfit onto a panel 12x18 inches.

With my present set and an aerial 30 foot above ground and composed of three wires spaced 2 1-2 feet apart and 150 feet long I am able to copy NAA, Arlington, Va., in daytime with ease also have heard ocean liners and naval ships. What is the approximate wave length of my aerial? What, would be the wave length if aerial were raised to a height of 50 feet? Could amateur stations be heard at that height by use of the series condenser or would it be necessary to shorten aerial? What advantage in amplification and sensitiveness would Weagant's circuit illustrated on page 102, figure 68 of Bucher's 'Vacuum Tubes in Wireless Communication,' have over a plain tube circuit having no coil or condenser in plate circuit? Could you tell me which would give most amplifier or a four stage resistance coupled amplifier? How many steps of either of these kind of amplifiers would be necessary to make radiophone signals hearable thruout a room size 15x30 feet, when using a loud speaker constructed from a Baldwin receiver amplifier unit and receiving at a 500-mile distance?—R. C. F., Kingsley. Mich.

The best circuit is the circuit that works best for you. I use two different ones; the regenerative circuit using a tickler coil in the plate circuit, also a variometer tuned plate circuit, both of these circuits better as you become used to them and find the proper manipulation to get best results. They will receive both spark and C. W. telegraph as well as telephone.

If the total length of your aerial, flat-top and lead-in wire and ground connection is 150 feet the approximate wave length is 218 meters. To raise it 20 feet more would add about 50 meters. If the flat top is 150 feet the lead-in 30 feet the approximate length is 260 meters. Amateurs could be heard at the new height with a series condenser in the aerial or ground lead.

Tuning of the plate circuit, or the use of a tickler coil in the plate circuit actually amplifies several hundred times, whereas the simple circuit only detects. A trial will convince you that the signals are much louder.

The amplification difference between resistance coupled amplifiers and audio-frequency amplifiers is purely a matter of taste. The standard radio amplifiers on the market are audio-frequency, which on the whole would suggest that they are preferred for simplicity. The exact ratio is a matter of doubt amongst erimenters, it is certain that the resistance type require more care in construction and do not appeal to the average radio experimenter except as an experiment to try. I believe your two stage audio frequency will give you as much amplifloation as the four stage resistance coupled amplifier. Would suggest that you try one step of each and compare results, as the particular constants of a circuit affect the working of amplifiers. Two steps of audiofrequency amplification with the Baldwin loud speaker should enable you to hear the music over a room the size you give, 15x30 feet.

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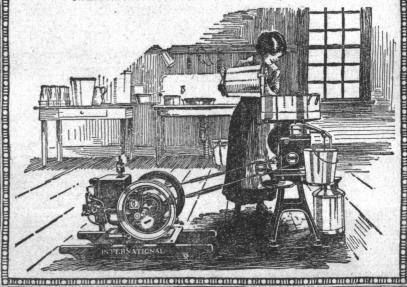
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#### "The Farm Paper of Service"

#### Is the Prohibition Sentiment Waning?

UREN Dickinson, former lieutenant governor, warns the people of Michigan that unless they are on the alert, foes of prohibition will succeed in putting across a light wine and beer amendment this fall in a test vote. But Dr. Waltman of the Anti-saloon League has no such fears. He believes that a test vote would show a much larger percentage against wine and beer than was cast in 1919 when 530,-000 votes were cast against the measure and but 330,000 for it.

We believe that Dr. Waltman has the situation sized up right. The wet crowd is doing a lot of talking and getting a lot of space in the daily newspapers with wet leanings. there is positively nothing to indicate that the great masses of people are dissatisfied with prohibition or desire to see any letting down of the bars. Attempts to hold meetings under the auspices of the Association Opposed to the Eighteenth Amendment in cities outside of Detroit have met with dismal failure. In Mount Clemens, a city which was notoriously wet in the old days, less than thirty appeared at a wet banquet prepared for eighty.

Little stock can be laid by the scant surface indications of dissatisfaction with the prohibition law. The dictums of society have always been flouted by a certain lawless minority which stoops to any method to gain its ends. From the day the prohibition amendment went into effect this minority aided by a handful of "personal libertines" have been stirring up a lot of dust. But it is only a gentle summer zephyr and will never attain the proportions of a Kansas cyclone.

The great mass of people are saying nothing. Little is heard of the reunited families, the rejuvenated homes, the substantial bank deposits, the decrease in crime, disease and poverty, and other beneficent results of prohibition: But people whose minds are not governed by their stomachs and are therefore able to think clearly realize the benefits of prohibition and will not be swayed by any specious arguments to lessen or destroy them. Let a test vote come. It will prove to be the clinching nail in John Barleycorn's coffin.

#### Farming The Farmer Vote

N a not altogether unfriendly editorial the Detroit Saturday Night, a strong Townsend supporter, discusses Sen. H. F. Baker's leanings toward the United States senatorship and incidentally takes a crack at the "politicians", whom, it alleges, make a pastime of "farming the farmer vote." It names Baker as "probably the first politician of modern times to declare that there is no such thing as a solid farmer vote in this state, and to move rapidly away from the promise of a nomination on that account."

In the eyes of Saturday Night it is perfectly all right to "farm" the labor vote, the busiress man's vote, and the capitalist's cash, but it is a horrible breach of political ethics to "farm the farmer vote." Detroit politicians Lever do such a thing. The reason is simple. There are no farmers in Detroit. If "farming the farmer vote," means putting oneself definitely on record before the world on agricultural issues, and that is exactly what it means, then we glory in the courage of the men who "farm" the farmer's political influence.

Free government will never be endangered by the man who shouts his convictions from the house-tops, but watch out for him who secretly barters his soul to the money changers.

#### That Pig Survey

FARMERS are divided in their opinions of the wisdom of the "pig survey" which the U. S. Department of Agriculture has just completed. Ever since the government began the gathering of statistics on the annual production of farm products farmers have engaged in heated debates as to whether the government was not intruding on forbidden ground and whether the information so gathered and published at public expense did not reveal secrets of the farm industry to the detriment of the farmers and the benefit of the middlemen.

Excellent arguments can be presented on both sides, but whenever the subject is broached we are reminded of the old adage that "a little knowledge is a dangerous thing." Up to the time the government began gathering crop statistics the farmers knew so little about their business that they marketed blindly and unwisely. Great corporations, however, who dealt in farm products, had their own private sources of information which no matter how incomplete gave them some idea of the potential supply and the probable demand. To say that the issuance of crop statistics mitigates against the farmers' chances to dispose of their crops at the best advantage is to confess a lack of study of the subject.

The same arguments will apply to the pig survey. Undoubtedly the packers have had a fairly clear idea of the annual pig crop for years back long before it was harvested and were guided accordingly. The farmers knowing little or nothing of the probable production, were likewise guided accordingly. Which think you, profited the most?

In making its pig survey, the Department of Agriculture is taking a wise and forward step. But it. too, must remember that a little knowledge is a danger thing. Incomplete or incorrect statistics are worse than no statistics. A job of this kind if worth doing at all is worth doing well. If the government is equipped to gather correct and complete statistics it should do so, but if not, 'twere better that the annual pig crop were "born unseen."

#### George B. Horton

HE "grand old man" of Michigan agriculture is dead, and thousands of Michigan farm homes are in sorrow.

George B. Horton was a successful man in every sense of the word. He was a good farmer, a good business man, a good neighbor and a good friend. Devoted as he was to his interests in the line of farming and dairy manufactures he nevertheless devoted considerable time to the public weal, and for the better part of his long life was actively connected with the organized agriculture of the state, upon which he has left an indelible impress.

The constant contact with nature did dull Mr. Horton's appreciation of her wonders as it does so many men who farm. On the contrary he loved nature in all her varied forms and her manifestations were a constant joy and marvel to him. His one great hobby in life was reforestation, and the magnificent forests standing upon his farm which for over a half century he nursed and cared for as tenderly as he did his farm animals, are the finest monument which could be erected to a man's untiring genius.

Mr. Horton was a man of unlimited patience

and a master of detail. Whatever he did, he did it well. This principle he applied as religously to his public activities as to his private interests. As master of the State Grange he was an indefatigable worker and handled many details of organization and promotion which others either neglect or delegate to someone else. As a result of this devotion to his job the Grange enjoyed a marvelous growth under his leadership.

It was given to Mr. Horton to enjoy the fruits of his labors in the fullest measure. His work was finished. Not all that he had worked for had been accomplished, but enough of it had to reveal the power of his influence. For the past several years he had gradually withdrawn from the more strenuous activities and contented himself with minor labors about the farm, where he was host on many occasions to hundreds of farmers who stopped at the Fruit Ridge farm to inspect his wonderful trees and partake of the Horton hospitality.

In the death of George B. Horton, Michigan has lost a useful citizen and agriculture a friend and leader.

Take Time To Play

THIS is going to be a very busy summer among the farmers. Farm help is going to be scarce again and many farmers can't afford to hire it when it can be had. Farmers have got to work harder if possible to produce the largest maximum yield at the smallest cost, in order to make up for the lower prices. Farmers who a couple years ago had visions of soon "taking life easy" must revise their plans and increase their efforts Hard work hurts no cne. It is drudgery that tires the muscles and destroy man's spirit. Hard labor day in and day out with no respite will turn the best of men into mere automatons and rob them of the pleasure of living.

"Work for the night is coming," but take time to play as well else you will needlessly hasten the coming of the night. There will be days this summer,—there always are,—when farm work cannot be neglected for even an hour, but there will be other days as there always are when there is a lull in the work and the farmer ought to play. Your year's work will mean more to you in happiness,-yes, and even in profits,-if you find time to play, attend pienies, the horseshoe tournaments, take the wife and kids to a nearby lake or on a short automobile tour. The most successful farmers are those who work the hardest and play the hardest. And it is true with all occupations of life.

#### The Detroit Packing Company

NEW industry has sprung up in Michiigan which is destined to play an important part in the commercial and agricultural life of the state. We refer to the Detroit Packing Company.

When this project was first launched the Business Farmer made a thorough investigation to ascertain: first, if the men behind it were honest and knew their business; second. if the financing program was sound; third, if there was a field for a packing business in the city of Detroit This investigation resulted satisfactorily in all respects and we are glad to say that subsequent events have proved that

our confidence has not been misplaced.

The Detroit Packing Company is today, owned by farmers and managed by men of their choosing. These men are experts along their respective lines and have made a success of other business enterprises in which they have been engagd. A visit to the great plant at the intersection of Lafayette boulevard and Springwells avenue. Detroit, instantly with the magnitude of the business and a confidence in its stability.

This concern is now doing a complete slaughtering and packing business, and is getting the bulk of its shipments direct from farmers who are thus saved the expense of commissions, yardage, etc., entailed when stock is run thru the stockyards. In a later issue there will be published a detailed story of what the Detroit Packing Company is doing for the Michigan live stock industry and its farmer stockholders.

#### I Incle Rube Spinach SayS

MAD AND FIGHTIN'
NOIN' up the street today—this day when the sun is shinin' brightly an' every thing speaks of love an' kindness, I seen a man or a thing dressed in man's clothes, slap and kick a little boy 'bout eight or nine years old. He not only slap-ped and kicked the boy but he swore at him somethin' awful. The boy, unfortunately belonged to him an' he probably thought he wuz exercisin' fatherly rights. Well, since how I didn't jest see it in that light an' so I stepped in an' sed to the feller "why don't you jump on to a feller of your size, try me once" I sez. An' do you know the feller was a reg'lar craven, he couldn't fight a man, he lest wanted to show his strength on jest wanted to show his strength on somethin' smaller than himself. I jest believe I could 'a cleaned his clock for 'im but you see he didn't dast fight a man!

Well, do you know I'm jest wonderin' how many fathers there are in this big world of ours that's controllin' their kids jest that way? You know I don't believe in that sort of thing at all. If you can't control the boys and girls by love—by showin' that you have confidence in

'em, then they are beyond control: I have raised five children, never have I put a hand on any of them. They are well behaved, fine as any kiddles can possibly be. They have never been punished in any way. I ask them to do a thing an' they do Would any kind of punishment do more?

You know I don't b'lieve in a great big brute of a man knockin' a little kid 'round—If he wants to put his strength into somethin', let 'im try me or somebody of his size.

To control our little men an' women we must use judgment. First then is self control. We must not get mad at the kiddies—remember we were once in their class. An' dear friends, I want you to know that I am not so very far removed from the kiddie class right now. As one of my friends, a nice clean young feller has expressed it—I am a grayheaded old, young feller. Well that's all right, I'm gray-headed an' every thing but—I'm not old! Why a few years don't make so much difference It's when we lack love for our little playmates—our little boys and girls then's when we begin to git old.

An' I'm jest tellin' you right now

that when a man begins to beat up a little boy—no matter what the prov-ocation—he's jest showin' his brute strength—he's doin' the boy no good an' he's lowerin' himself in the eyes of everybody

Now I might 'a had a fight over this boy this mornin'—the only rea-son I didn't was 'cause he didn't dare to fight—he could fight a little

boy but a man looked different.

I don't think there's much more to say only this—Rule your kiddles with love—there is no other way. Cordially yours—UNCLE RUBE.

## HE SPOTLIGHT

"Let the light of publicity shine full upon the acts of those to whom we delegate the making of our laws. Thus shall the temptation to turn aside from duty be thwarted, and public servants encouraged to remain always responsive to the wishes of the people."

SHALL SUPERINTENDENT OF PUB-LIC INSTRUCTION BE APPOINTED

How does the taking of the election of the Superintendent of Public Instruction out of the hands of voters and placing it with the Board of Education take it out of politics? It seems to me that it would not improve matters. It would be wise to watch for this amendment at the fall election. We enjoy the Business Farmer and watch for it every week. —Mrs. G. B. K., Sodus, Mich.

We are not aware that there is any great need or popular for changing the position of the Superintendent of Public Instruction from an elective to an appointive office. The tendency of the times, however, is toward the short ballot and the appointment to many offices now filled by election. The argument in favor of more appointive offices and less elective that the mass of voters do not and cannot know the qualifications of all candidates for the offices which

they are called upon to fill The theory is that more two years. attention should be given to the character of the chief officers of political units and let them select the minor officers. Any reason for removing the office of superintendent of public instruction from the elective list would apply with equal force to other departments the state government. The amendment proposes to place the selection of the superintendent in the hands of the Board of Education, members of which are elected by the people. We cannot see how the change can materially improve the character of the men to hold the office as the present incumbent, T. F. Johnson, as well as his immediate predecessors, have proven to be capable officers. The proposed change is undoubtedly the first move toward the shorter ballot, and voters will decide for or against the amendment as they believe in greater or less centralization of auth-

#### "DICK" FLETCHER

I am, sending you some campaign literature which is being put out in these parts by Dick Fletcher. I didn't know Mr. Fletcher was so particular about how the people's money is spent. Do you think he means what he says?—C. S., Saginaw County, Arch.

Fletcher? Fletcher? Name sounds kind of familiar. Oh, yes, labor commissioner, appointed by Gov. Sleeper, wasn't he? Also, indicted but vindicated in the Newberry scandal, if I remember correctly. What's he a candidate for? Oh, I see, Governor, eh?. Has high assee, Governor, eh?. Has high aspirations, hasn't he? Well, let's see what he stands for:

"I am for reduction of taxes. I am against tax exempt securities. I am in favor of the repeal of the State Corporation Tax. I am against the one-cent a gallon Gasoline Tax. I am against the Personal Income Tax. I am against the proposed Depository Tax. I am against the proposed Stamp Tax or any other unnecessary tax."

In even plainer English Mr. Fletcher is against any tax that levies against wealth and is for perpetuating the tax burden on the backs of home owners and farm owners.

Mr. Fletcher is also opposed to "high" salaries for state officials. At least he says so. Does he mean it? Let the record speak.

On page seven of the May 19th (1919) issue of the Michigan Business Farmer we find this interesting account written by State Senator Herbert F. Baker, who "lifted the lid at Lansing" 'for the benefit of Business Farmer readers:

"Early in the session (of 1919) "Dick" (R. H. Fletcher, labor commissioner) had the boys pass a bill extending his term of office from two to four years. This bill was voted down decisively in the House but "Dick" had it reconsidered and laid on the table. Then he went to work to show the fellows the merit of that old slogan, "never say fail," and when the bill was taken off the table, it went through by a nice majority. If the roll call had been delayed one minute longer, he would have had the man who led the fight against the bill the first day, voting with him at the last.

"On the next to the last day of the session all members of both houses were invited to a fish supper at the Labor Bureau's rooms and everybody went. There was an adequate supply of splendidly fried perch, bread, bevo, ginger ale, pickles and cigars. It was like a Polish wedding. It must have cost "Dick" at least two hundred dollars. Every-body was ready to swear by "Dick,"

"The next and last day of the session a little bill came ambling along bearing a distinct odor of fish, increasing the salary of the labor commissioner one thousand dollars a year. It passed by a narrow mar-

Of course, it must be remembered that the Constitution fixes the salary of the Governor so that in the event of his election Mr. Fletchter would have to cross fish suppers off his list when he goes gunning for a higher salary, and devise some more subtle and less expensive bait. As friend Miner of Chesaning says, "By their works ye shall know them."



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#### GEDDER IN YO' GRAIN

E ole plow hoss is busy Breshin' flies off wid his tail De ole dog's got a move on him Dat's zackly like a snail. De meddah grass is noddin! — En off yondah in de lane I kin hyar da tree toads warnin' "Bettah gedder in yo' grain."

Doan yo' hyar de frogs a-gurglin'
Dar out yondah in de pond?
What's de mattah wid de catbird.
Doan yo' hyar his voice respond?
Ain't de hull of 'em a-tellin' yo'
In language mighty plain,
"Doan be trivlin' way yo' moments,
Bettah gedder in yo' grain."

Ain't de bumble bee a-hummin'
'Mongst de clovah tops and flowahs.
Whilst de ole clock am a-tickin' 'wi
De minutes an' de houahs?
Chile, yo's got to be a-hustlin'
To ketch de wisdom brain.
Doan waste no opportunities,
But gedder in yo' grain.

#### HELPS FOR JELLY MAKING

IN order to make jelly it is necessary to have a fruit juice that is acid and that contains a substance called pectin.

Pectin is a vegetable substance of starch origin and gives to the juice it's gelatinizing property, that is, makes it jell. The amount of pectin present tells you not only whether a juice will jell but also how much sugar should be used so it is well for the housewife to determine the amount of pectin present in the fruit juice she wishes to make into jelly. Here is a simple test.

Mix together 1 tps. cooked fruit juice, 1-2 tps. sugar, 1-4 tps. Epsom salts. Stir until dissolved, let stand five minutes. If the mixture sets into a jelly within this time it is a good jellying juice.

If the presence of pectin is not shown it may be, by adding pectin made from orange or apple (recipe follows:) A large per cent of pectin calls for 3-4 to 1 cup of sugan to 1 cup of juice.

If a small amount of pectin is present less sugar may be used.

Too much sugar makes a syrupy jelly-sweet apples and red currants make a fine jelly, also quince and tart apples.

The test for pectin is desirable but not essential. Fortunately many fruit juices contain pectin and acid in good proportion, and as a result jell more readily than others. Some of the easiest fruit juices to make into jelly are apple, crab apple grape (partially ripe), raspberry, blueberry, gooseberry and currant. Fruit juices that do not jell alone, such as strawberry, peach, pear, pineap-ple, cherry, etc., may be combined with one of the fruit juices which does jell easily.

The following table gives about the proportion of juice and sugar for some of the fruit juices:

Grapes (partially ripe) 1 cup juice, 3-4 to 1 cup sugar; raspberries 1 cup juice, 3-4 to 1 cup sugar; currants 1 cup juice, 3-4 to 1 cup sugar; blackberries 1 cup juice, 3-4 to 1 cup sugar; tart apples 1 cup juice, 1-2 to 3-4 cup sugar; crab apples 1 cup juice, 1-2 to 3-4 cup sugar; cranberries 1 cup juice, 1-2 to 3-4 cup sugar.

#### How to Extract the Juice

Cook juicy fruits in small amount of water.

When fruit has come to boiling point mash with paddle or wooden masher.

3. Pour into jelly bag or flannel or double thickness of cheese cloth and let drain. (To hasten the process the juice may be squeezed out but this will make the jelly cloudy. If simply allowed to drain, the juice is called the "first extraction." This gives a very clear jelly.)

A second extraction may be made adding more water and letting fruit boil again for a few minutes. Strain as before. Before any sugar is added this juice should be boiled down until it has about the same pectin content as the first extraction.

Instead of making more extractions of juice, one may take the pulp after the first extraction, force it through a colander to remove seeds and skins and make it into a fruit butter.

#### Precedure

Measure juice-better to cook only 4 to 6 cups of juice at one time. Heat sugar in oven-care



Edited by MRS. GRACE NELLIS JENNEY

should be taken not to let it brown. Heating the sugar tends to steady the process and jelly making should be rapid from the time the juice begins to boil until it is done.

3. When juice is boiling skim and then add sugar. Stir until sugar is dissolved.

4. Boil rapidly until product will form two drops from spoon which have a tendency to flow to-gether or until product flakes from spoon.

5. Remove from fire; pour into hot sterile glasses and skim if necessary.

#### **Orange Pectin**

Cut or scrape yellow rind from peel of orange; grind remaining white peel. Mix 1 pound of white peel, 1 quart water and 4 table-spoons lemon juice; let stand 15 minutes then add 1 quart water. Boil ten minutes. Let stand over night. Next morning boil ten minutes; cool and strain. It may be bottled and processed or used at once. Add to fruit juice until a good pectin test is obtained.

Apple Pectin

One pound apple, skin and cores. Juice of 1 lemon. One quart water. Boil 1-2 to 3-4 hour, press juice through cloth bag, then drain it through a heavy flannel or hair cloth bag without pressure. Bottle the juice process for 15 minutes in a water bath in boiling water and keep until it is needed for jelly making. Use as orange pectin.

Apple Jelly Apple jelly is mild in flavor-try putting a rose geranium leaf which has been dipped in boiling water, in the bottom of the glass. A piece of green ginger root, or lemon cut up and added to apples while they are cooking, will add to the flavor.

Mint Jelly Mint jelly may be made by adding a handful of fresh crushed mint leaves to the apples while cooking or mint extract to the juice. Add a very little green vegetable coloring to the juice after straining. makes a very attractive jelly.

BACILLUS BOTULINUS

The very undisirable presence of B. Botulinus in the home-canned pro ducts is a danger easily guarded

Examine every jar carefully when

it is opened for table use. Do not taste to determine whether it spoiled.

Discard jars if tops are blown, if there is a peculiar odor resembling cheese or if there is a musty appearance of the solid parts of the canned mixture.

The toxin or poison that B. Botulinus produces may be entirely destroyed by boiling 5 minutes hard. The contents of the can or jar may then be eaten with out any danger.

#### CORRESPONDENTS COLUMN

A pattern came to the office here addressed to Mr. Martha Schaffer, it is marked "wrong address" the address being North Creek, Mich. Will Mrs. Schaffer send me her correct address? I will mail the pattern to her at once.

I have a letter here for Mrs. H. V. of Scotts, Mich., if she will send me her full address, I will mail it to

A splendid fertilizer for lawns or garden is:

1 lb. nitrate of soda to 2 lbs land aster. Its certainly does make plaster. Its certainly does many things jump and keeps the grass green also.

Mrs. J. H. K.—There is a prepartion called Rust Proof which sells here for 25c a can. It is supposed to prevent and stop rust. If you cannot procure it send me 35c and I will have a can mailed to you.

PIECES FOR QUILTS.

PIECES FOR QUILTS.

I am sorry I did not have enough pieces to go around as I received 12 letters from people wanting pieces. I am sending those pieces I have to people who are shut-in and not able to do much only piece quilts? Don't you think I am doing the best thing possible? I will keep the addresses of all those who wrote to me and perhaps I can send you people some in the near future, so please do not be disappointed if you don't hear from me personally. I want to thank those who sent me the song as I was very glad to get it. It is a beautiful song if sung right although it is an old one. 'I am giving one of my favorite cakes to eat with tea or coffee.

Coffee Cake

2 cups flour, 1-2 teaspoon salt, 2 tablespoons sugar, 4 teaspoons baking powder, 2 tablespoons shortening, 1-2 cup milk or water. Mix dry ingredients then add shortening and enough milk to make stiff batter, spread 1-2 inch thick in greased pan, add top mixture and bake 1-2 hour.

Top Mixture

2 tablespoons flour, 1 tablespoon cinnamon, 4 tablespoons sugar and 4 tablespoons shortening. Mix first 3 things

then rub in shortening and spread thickly over top of dough before baking.—Mrs. H. M.

HOW TO REMOVE LIME IN TEA-KETTLE

If Mrs. E. B. puts a couple of large potatoes in the teakettle and boil for 2 or 3 hours, I think she will be able to remove the lime with a spoon by scraping.—Mrs. T. H.

#### ANOTHER SONG WANTED

Will some lady please send me the song about a cowboy? The first line is, "There was a young cowboy all dressed in white linen." I will be very thankful for the favor.—Miss Florence E. Peters, Ithaca, Route 2, Mich.

#### BREAD STARTER

I saw in your paper that a lady wanted to know how to use the starter yeast for bread, so I am sending mine, hope it will be all right. I wouldn't be without it. My mother used it ever since I can remember. This makes five large loaves.

2 quarts of warm water, 2 tab spoons of sugar, 1 tablespoon salt, 1 cup of mashed potatoes, add the starter yeast, set in a warm place till light, when light save a quart of this starter, the remainder mix in a hard loaf, let rise again till light, make in loaves. Grate a small raw potato in the starter to keep it new. Thanking you for all the help I have received from the women's page, especially. We like the paper fine. Will be glad when it comes every week again. We had a little chicken hatched the other day with four legs. There have been many people here to see it. They say they never saw one before.—From a Subscriber.

## CANNING HORSE-RADISH AND BREAD STARTER

CANNING HORSE-RADISH AND BREAD STARTER

In reading the M. B. F. I saw the request for canning horse-radish. Grate or grind the quantity you may want. Put in glass jars, do not pack too tight, cover with cold cider vinegar, seal tight. In canning under this recipe I have had excellent luck. I have kept some for over two years and it tastes just dandy. I also saw in the M. B. F. a request for a bread starter. Put 2 yeast cakes to soak about four o'clock. After supper take one cup of well mashed potatoes, one cup of sugar, one gallon of potato water. When luke-warm put in yeast cakes, let stand over night. In morning put in a cool place until baking again, take out about one pint in a glass jar, put in a cool place until baking. Take the remainder of the yeast to bake bread. If the yeast you save out in a jar after some times does not become light add 1-2 grated potato and 1 yeast cake. Have bad good results for years.—M. G. N.

We moved to Michigan a little over a year ago and have been taking M. B. F. for about a year and enjoy it very much, especially the Woman's Page and when I read in an issue some time ago that if we all would send in our favorite recipes and helpful hints we could help our Mrs. Jenney make it a better page, it made me feel as if I was a cheap skate for not trying to do my bit. As I am a mother of six I don't always find time to write but feel as if I should once in a while. I will send my favorite cake recipe, and this is one of my most helpful hints. When you get new underwear sew around the button holes 3 or 4 times with the sewing machine then the button hole will always keep its shape and will last longer than the underwear.

Devil Food

last longer than the underwear.

Devil Food

2 cups brown sugar, 3-4 cup butter, 2 eggs, 1-2 cup sour milk, 1-2 cup hot water, 1-4 cake Bakers bitter chocolate, 2 cups of flour. I teaspoon soda, 1 teaspoon vanilla. Cream the sugar and butter. The secret is to cream the sugar and butter with the hands for the heat of the hands makes it cream much better than to use a spoon, then add eggs, then sour milk, then the melted chocolate, then the hot water, vanilla, then the flour, then last of all the soda dissolved in 2 teaspoons of hot water.

Sponge Cake

Sponge Cake 4 eggs, 1 1-2 cup granulated sugar, 1-2 cup cold water, 1 1-2 teaspoon baking powder, 1 teaspoon lemon extract, 1 1-2 flour. Separate the eggs, the yolks from the white and beat the sugar and yolks to a good cream then slowly add the water and beat all the time, then add the extract then add the baking powder and flour slowly, then last of all fold in in the beaten whites of egg.—Mother of Six.

#### CREAM CAKE

3 cups pastry flour. 1-2 cup butter, yokes of 3 eggs, whites of 3 eggs, 3 teaspoons baking powder. 1 1-4 cups sugar, 4 cups cold water. Sift flour once, then measure, add baking powder and sift three times, cream butter and sugar, add the yokes well beaten, then flour and water alternately, then extract. Beat long and hard, fold in lightly the well beaten whites. Bake in slow oven.

Filling for Cream Cake

I whole egg, 1 teaspoon vanilla, 1
tablespoon cream, 1 teaspoon each of
cinnamon and nutmeg and 1-2 teaspoon
cloves, 2 cups confectioner's sugar, beat

cinnamon and nutmeg and 1-2 teaspoon cloves, 2 cups confectioner's sugar, beat long and hard, spread when cake is cool. Truly delicious.

Doughnuts

1 egg, 1 cup sugar. 2 tablespoons butter, 1 cup buttermilk, dissolve 1 teaspoon soda in a little hot water, 1 teaspoon of lemon extract and nutmeg, flour. Have a kettle of hot water near and, as fast as you remove the cakes from the grease dlp in the hot water and take out immediately. Always wipe off fork after dipping in water. This makes them better than if the grease is left on.

Carrot Pie

1 1-2 cups cooked carrots, washed fine, 1 cup sugar, 1 1-2 cups milk, 2 eggs well beaten, 1 teaspoon each cinnamon and ginger, pinch salt. Bake in open crust, when cold spread with whipped cream.

Above recipes are very delicious if directions are followed carefully.

For Service, Simplicity and Style Address Mrs. Jenney, Pattern Department, Michigan Business Farmer CATALOG NOTICE Send 15c in silver or stamps for our up-to-date Spring and Summer 1922

\_\_\_\_AIDS TO GOOD DRESSING\_

Catalog, showing color plates, and containing 500 designs of Ladies', Misses' and Children's Patterns, a Concise and Comprehensive Article on Dressmaking, also some points for the needle.



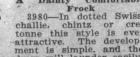
A Popular Style
for a Boys' Suit
3999 — Cheviot,
serge, linen, cordur
roy and khaki are
good materials for
this model.
The pattern is
cut in 4 sizes: 4,
6, 8 and 10 years.
A 10 year size requires 3 yards of
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New "Overalls" for Our Boy 3982 — In these "rough and tumble" play days, your small son will find this style

A Frock in Dainty
Style
3998—This model is easy to put
together, and very
easy to launder.
In pongee, prints,
or crepe it will be
very attractive.
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cut in 4 sizes: 4,
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of 32 inch material. As fllustrated
figured voile was
used with rick
rack braid for decoration.
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oration.
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. VACATION

OBERT WINSLOW and Harvey Morse, schoolmates at the Centre district school, were homeward bound with their books were under their arms and dinner pails swinging by their sides.

Harvey stopped and looked back the way they had come. It was the last day of school and but a few moments ago they had bid their teacher goodby. They had gone only about a quarter of a mile and as the schoolhouse was in plain view Harvey could see several of the children still gathered about the teacher infront of the schoolhouse.

"I enjoy my school work," he remarked "but it will seem good to have a vacation, and I have so many things I wish to do."

Robert stopped and faced his friend.

"That's just the way I feel about it." He hesitated a moment and then continued, "but I am certainly going to have a lot of fun this summer.

Harvey began to inquire about Robert's plans as they resumed their walk home.

"Oh, I have so many things I wish to do that I can't think of all of them, I am going to visit my cousins who live in the city. going on a camping trip for about a month with Tommy and Arthur Lindsey and I am going to build a radio and play-and play."

"Is that the way you intend to spend your vacation? I do not see how you are going to have much fun. How will you keep busy?" His friend wanted to know.

There was a surprised look on Robert's face as he inquired, "How are you going to spend your vacation so that you have a good time?" "For one thing I am going to have

good time helping others," was the reply.
"What do you mean by that?"

Robert asked.

"Well," continued Harvey. "I am going to help my father all I can with his work and help mother by bringing the water and wood for her and do considerable work in my field of corn 'cause I would like to win the State championship in Corn Club work this fall if I can. I also belong to the Calf Club and the care of my calf will take quite a bit of my time. And I too want a radio so if I have any time left I shall make one."

The boys had been walking quite fast and were now but a few yards from the driveway leading into the

yard of Harvey's home.

Robert seemed to be thinking deeply and as Harvey turned in at the gateway he stopped.

"I believe you are right, Harvey," he said, "and I am wrong. I be-lieve you will have more fun than I if I spend my vacation the way I

have planned." He started down the road again but after going only a few yards turned and called to his friend, "Say Harvey, I'm coming over to see you tomorrow and talk some more about this vacation, I know I can help both mother and father a lot, and I'll begin tonight. Goodbye." And waving his hand he disappear ed in a cloud of dust .- UNCLE NED.

#### OUR BOYS AND GIRLS

Dear Uncle Ned—I am a farmer's daughter. My age is between 14 and 18 years. Who guesses my age will receive a long letter from me. I will describe myself. I am 5 ft. 6 in. in height, dark brown hair and blue eyes, fair complexion. My birthday is November 10th. I took the eighth grade examinations at Athens two weeks ago but have not found out whether I passed or not. If I do I will be a freshman in high school next year. The last day of school we are going to have a picnic at our teacher's house. There are not very many scholars in our school, I boy and 9 girls. I wish some of the boys and girls would write to me. I will answer all the letters I receive. Remember who guesses my age will receive a nice long letter from me. Your loving neice.—Miss Frances Inman, R. F. D. 2, Athens, Mich.

Dear Uncle Ned—I am a boy 9 years old. My birthday is the 12 of July. I go to school every day. I am in the 3rd grade. I have a little sister. She is 7 years old and in the 1st grade at school. We live o na 40-acre farm. We

have 2 horses, 2 cows, 2 calves, 1 hog, 130 little chicks and 60 hens. For pets I have 2 cats. We have had so much rain we can't get our corn planted. My father takes the M. B. F. and likes it very much. We will have a community meeting at our school house tonight. We have had two and thinking of having them once a month this summer. We have refreshments and a program and we all enjoy it. I would like to correspond with some of the boys and girls.—Carrol Culbert, Jonesville, Mich. the boys an ville, Mich.

ville, Mich.

Dear Uncle Ned—Well, I passed the final examinations with an average of 814-5 per cent. I just got through in government, 60 per cent, and in spelling I received 95 per cent which was the highest in any study. School closed the nineteenth of May. Just think, won't have to go to school until away next September. We have some trees around here with little pink flowers on them, that looks like a half opened rose only a fot smaller. I was wondering if it is Tamarack. It is an evergreen tree. I hope you are having nice weather in Mount Clemens, It sure is fine here. There are all kinds of flowers in bloom here. I picked some snow balls yesterday, they were just about perfect.

One of the children in the last M. B. F. wrote about the flowers being in bloom in northern Michigan. It sure must be pretty in the spring up there because I was up there one summer, near Alpena, and there was all kinds of flowers then. It was quite late too. I will have to say "adjeu" and get busy.—Myrtle Bearss, Owendale, Mich.

Dear Uncle Ned—May I join your merry circle? I am 11 years old. My birthday was the 3rd of January. I go to school and am in the 6th grade. have 3 1-2 miles to go to school. I like to read the children's letters. Your friend—Violet E. Grandy, Evart, Mich.

Dear Uncle Ned—How are you today? I am eleven years old and my birthday is the 22nd of September. I am in the fifth grade. We have eighty acres of land but have only a small part of it cleared. For pets I have three cats, Pussy, Bright Eyes and Plumby, two calves, Lady and Juerry, and one dog, Prince. I like my pets. We have four cows and two horses. I have three sisters. I play the plano. I have been reading the Children's Hour and think it is very nice. Good-bye Uncle Ned.—Ethel M. Marshall, Coleman, R. R. 3, Mich.

Dear Uncle Ned—I am a farm girl. I am not going to school, because my mother died and I have to take her place now. My dear mother died July 15, 1921. I have three sisters younger than I am, and four brothers. I am not going to have very many ducks this vear, but I am going to have a lot of flowers so I can put a lot on my mother's and brother's graves. My brother that died was a year and a half old. I wish some of the girls and boys would write to me. Will close with best wishes to Uncle Ned and M. B. F.—Miss Elizabeth H. S. Kleido, Elkton, Box 9, Route 3, Mich.

Dear Uncle Ned—I am a girl 9 years old and in the 3rd grade at school Mv birthday is the 21st of October. School will soon be out and I will be glad. We have a dog that goes to school with us every morning and when we get there he goes home. I have 2 sisters and 2 brothers. My oldest sister is 7 years old and the other is 11-2 years. My oldest brother is 6 years old and the other is 2 years old. I live on 100-acre farm. We are milking 7 cows. We have 2 horses. I enjoy reading the Children's Hour.—Leona Babel, Marine City, R. 3, Mich.

Dear Uncle Ned—I am well and hanny. I just had my dinner. My sister Ethel is washing dishes. I am 8 years old; I will he 9 years old in October. Good-bye. Addiline J. Marshall. Coleman, Mich.

Dear Uncle Ned—I will drop a few lines to you. How are you and the cousins? I hope you are well. I have a story I wrote myself and thought I would write and ask you if you could print it, but if you have some others on hand, do not bother with it for do not want to take un space. I am 11 years old and in the 5th grade, I hope I will pass. Our school is out this Friday. do love to go to school. Well I will close so as not to take up so much space. Good-bye to you all. Would like to see you. I would he pleased to hear from you cousins. Good-bye.—Mildred Wolfe, Fife Lake, R. 2. Mich.

Dear Uncle Ned—I am 8 years of age and am in the third grade. Our school was out the 22nd day of May. On the last day we had ice cream and cake. For pets I have a dog and a cat. The dog's name is Buster and the cat's name is Tabby. My father owns a farm of 40 acres which he is now plewing. I plowing. I have 40 acres which he is now plowing. I bassed in the fourth grade. I have a little kitten all white and its name is Snowball. I have two sisters and one brother. My oldest sister is 12 years of age and my brother is three years of age. I love to read the Children's Hour and I would like to have some of the children write to me. We have a tent which we nut up Sunday and have a lot fun in it. I will tell vou what we have in our tent. We have three chairs and a table and a cumboard. I will give my address, it is metehr. Stewart, Cassopolis, R. R. 6, Mich.

Dear Uncle Ned—I would like to know how many times we can write to you. We take the M. B. F. and also lots of others takes it too. I am 13 years old the 31st of December. My papa is dead and I have a step-papa. I like him very

## 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. SMITH, Rhodes, Mich.

240-ACRE MICHIGAN FARM. CROPS, Team, 9 Cattle, Poultry, full implements, wood, lumber etc., thrown in; on main road in good section, close to town, cuts 2 ton hay and up acre; 25-cow pasture, wood, 20 apple trees; buildings insured \$1800; house with broad landscape views, barn, poultry house. Unable operate \$2500 gets all, part cash. Details page 90 Illus. catalog 1200 Bargains. FREE. STROUT FARM AGENCY, 814 B. E. Ford Bldg. Detroit Mich.

FARM WITH 1950 FRUIT TREES BORDERing beautiful lake; 100 acres with horses, cows, caif, 100 poultry, equipment inclued; near R. R. town. 70 acres 'tillage; big orchard; substantial 6 room house, barn. To close out \$6500, only \$2200 cash. Calalog free. WAYNE ADAMS, 103 W Ludington Ave., Ludington, Mich.

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 eres. Price \$20.00 per acre and up. Terms 0 per cent down. Interest, 1st year 3 per cent, 2nd year 4 per cent, 3rd year 5 per cent, lance 6 per cent. Apply SAMUEL BUTLER, locum, Michigan.

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

FOR SALE ONE OF THE BEST 225 ACRE, black top, clay bottom, level and fertile farms in Michigan. \$125 per acre. Terms. Owner, M. A. SAMS, Coleman, Mich.

140 ACRES, BEST SOIL, LARGE HOUSE and barn, All buildings good. 1 mile from town on hard road. Write RUDOLPH HASS-LER, R. 4, Sandusky, Mich.

FOR SALE—80 ACRE FARM 1 1-4 MILES from town. Good Buildings. Good well. For terms write ARNOLD CHAMPION, Wheeler, Mich.

GOOD FARMS ARE WANTED: SEND PRICE and description. ORDEN OECHSLI, Windsor,

BUY A LOT ACROSS RIVER FROM DET-roit, near the Detroit-Windsor bridge. You will make money. HALL-DOYLE CO. 217 Majestic Bldg. Detroit, Michigan.

## MISCELLANEOUS

NURSERY STOCK AND SEED

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

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#### LIGHTNING RODS

LIGHTNING RODS, OLD LINE INSURANCE on our make of rods—making it an agents Harvest. WRITE TODAY, L. D. DIDDIE CO., Marshfield, Wis.

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

KODAK FINISHING, PRINTS, GLOSSY finish, any size, 3e; developing roll, any size, 10c; expert work, 24 hour service. Give us a trial. Mail us your films. THE LANSING STUDIO Ypsilanti, Michigan, R. B. Lansing, Mgr. (P)

FOR SALE CHEAP J. I. CASE SEPARA-tor, Buffalo Pitts Beaner, both in good condition. GEORGE TROOP, St. Johns, Mich. (P)

much, He is good to us children. I have 3 brothers, 1 sister Dorothy is married and my brother is 16 years old. I will close with love Uncle Ned and cousins. P. S. I will send a story. We have to make up a story of our own. I will send mine.

mine.

Once upon a time there was a little boy and girl, they lived in the country. They asked their mama if they could go get a bouquet of flowers, and they went and was picking flowers and a snake bit the little girl on the leg and she sucked it and was all right after that. And she was picking flower when the boy seen a bull comming so they started running. The girls name is Alice and the boy's name was Harold.

Dear Uncle Ned—How are you and the cousins? I hope you are all well. I am a girl 5 years old and am in the 2nd grade. I started to school when I was was 4 years old. Our school will be out this Friday. Good-bye,—Thelma Wheeler, Fife Lake, Mich.

Take Your Automobile Along—Automobile rates reduced from 15 per cent. to 25 per cent. on D. & C. Steamers leaving Detroit daily 5:30 p. m. for Buffalo; 11 p. m. for Cleveland, on Eastern time.Adv.

AGENTS—SELL "EVEREDY TUBE PATCH" repair kits to dealers, auto owners. All Rubber Patch, "Self Vulcanizing-Cementless-No-Heat-No Gasoline" 50c and \$1.00. Salesmen averaging \$100 to \$200 weekly profit. You are dealing direct with manufacturer. "The Hotter the Road the Tighter Everedy Holds." Every can guaranteed Write today for free trial package and terms. EVEREDY PATCH CO., Cleveland, Ohio,

I WANT TO BUY GOOD SECOND-HAND cider press. Write me full particulars, ROBERT H. WOLCOTT, Mt. Morris, R<sub>j</sub>. 2, Mich.

RELIABLE MIDDLE AGED LADY WANTS sition as house keeper, where there is position as house keeper, where there is no other woman, am also planist, for good danc-ing or pictures. M. SMITH, Salem Hotel, Salem, Mich.

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.

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

LET\_US TAN YOUR HIDE—COW AND
Horse hides for fur coats and Robes. Cow and
Steer hides into Harness or Sole Leather. Catalog on request. We repair and remodel worn
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INVESTMENTS, LAND CONTRACTS, GUAR-teed collections on good Detroit real estate. anteed collections on good Detroit real estate Sold at 10 per cent discount. Write for particulars HALL-DOYLE EQUITY CO., 217 Majestic Bldg., Detroit, Michigan

TIRE SALESMEN—MAKE BIG MONEY. \$100 per week and up. All or spare time. No ex-\$100 per week and up. All or spore time. No experience or capital needed Sell best, guaranteed Akron standard meke cord and fabric tires below dealers prices. Save auto owners money. Dignified, profitable work. FEDERAL RUBBER GOODS CO., Akron, Ohio.

YOUNG LADY OF REFINEMENT, GOOD house-keeper, fine cook would like permanent position in respectible farmer's home. No children. Box 101, Care of M. B. F.

FOR SALE—GOOD ROAD GRAVEL PIT and deep vain 3 1-2 miles from Maple Rapids & 6 miles from Fowler Inquire at MAPLE RAPIDS BANK, Maple Rapids, Michigan.

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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.

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TOBACCO, SPECIAL SWEATED LEAF,
Chewing, select, 3 lbs., \$1; 10, \$3. Chewing,
smoking 10, \$2.50. Good
regular \$1.50. Guaranteed.
CO-OPERATORS,
Murray, Ky.

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)

KENTUCKY TOBACCO—"SPECIAL BAR-tains." Send no money, pay for tobacco and sostage when received. 10 lbs. 3 year old smok-ng, \$1.00, FARMERS GRANGE, Hawesville, "2" (P)

NATURAL LEAF TOBACCO—CHEWING, 5 lbs., \$1.50; 10 lbs., \$2.50. Smoking, 5 lbs., \$1.25; 10 lbs., \$2. Send no money. Pay when received. TOBACCO GROWERS' UNION, Paducah, Ky.

TOBACCO—HOMESPUN SMOKING, 10 lbs., \$2.50; 20 lbs., \$4.00 Fine chewing, 10 lbs., \$3.00. FARMERS CLUB, Mayfield, Ky.

## WALLPAPER

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ove needlet and supplies for all sewing machine Ladies silk hose with clocking at \$1 pair. Men's silk hose with clocking at \$1 pair. Nemo corsets \$3.98 Nemo circlets \$1
Dark Percale Bungalow Aprons to size 50, \$1 All colors in Fleishers Knitting and Crochet Yarna. HOFFMANN'S BAZAAR, Mt. Clemens, Mich.

HAVE YOU EVER OUR "BUSINESS FARMERS" EXCHANGE"?

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whether you buy one or not

If you are using a wornout, inferior cream separator, or skimming cream by hand, you are surely wasting enough cream to pay for a De Laval in a short time.

The selection of a cream separator is more important than that of any other machine on the farm, for none other can either save or waste so much, twice a day, 365 days a year.

A De Laval Separator will:

—Skim cleaner for many
more years than any other;

—Skim milk clean at lower temperature than any other separator;

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—And deliver a cream which will make better butter.

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It is easier to turn.It is easier to clean.

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Do not be deceived by separators which are claimed to be "just as good and cost less." When you consider its greater savings, greater reliability, longer life, the extra time it saves, and the greater satisfaction it gives, the De Laval is, in the end, by far the most economical cream separator made.

Even if you have only two cows it will pay you to have a De Laval. One can be bought on such easy terms that it will pay for itself in less than a year. Why not see your De Laval agent at once or write us for full information?

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165 Broadway
29 E. Madison St.
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De Laval
Cream Separator and Milker

#### N. Y. DAIRYMEN CONTROL MAR-KETING OF PRODUCTS

(Continued from page 5)
when they thought that Europe
would need our supplies in this line,
but one thing they failed to foresee:
that was the tremendous drop in exchange. European countries, with
their currency all gone to smash,
could not afford to pay the prices
asked by American manufacturers,
prices based on materials bought at
war figures, this referring not only
to the milk itself but also to sugar
(used in condensed milk,) cans,
etc., as well as labor and other production factors.

With the export market thus closed to them, many manufacturers cut down production materially; others shut down altogether: In fact is said-that when the war ended there was \$100,000,000 worth of condensed milk, milk powder and similar goods in the warehouses, for which no adequate market was available. With this outlet cut off, the supply of loose milk which came into the New York market was naturally greatly increased. To make matters worse, many farmers, unable to dispose of their grain at a fair price, turned it into milk by feeding it to their cows, thus still further increasing the over supply. The result was a flooding of the market, with a consequent deplorable slump in price.

It then became clear to the directors of the League that it was not enough for the organization to act merely as a selling agent; it must in addition be able to protect its members from the consequences of a glutted market, a condition which was almost certain to be repeated from time to time and which in the case of a highly perishable commodity like milk was bound to mean the loss of thousands of dollars to dairy farmers.

The obvious answer was that the organization must not only act as a selling representative, to supply the current demand, but must help also to increase that demand, as well as find a way to convert the surplus milk into such form that it can be disposed of in new markets, or held pending an increased demand.

Out of this need came the present Dairymen's League Co-operative Association Inc., which was incorporated under Article 13A of the membership corporation laws of New York State. Since the formation of the association, however, the Capper-Volstead Act has been passed by Congress, thus permitting agricultural groups to engage in collective marketing under the sanction of the Federal law in any state of the Union.

The first step necessary after the creation of the new organization was to work out a practicable pooling plan, whereby the new association coud handle the milk of its members as a whole, disposing of all that could be sold and operating plants in which the surplus could be manufactured into condensed and evaporated milk, butter, cheese, milk powder and ice cream. Likewise such a pool would enable the organization to build an efficient sales force, maintain the necessary educational department to increase the general use of milk products, and do numerous other things to promote the interests of its members.

A satisfactory pooling contract

A satisfactory pooling contract was worked out and a campaign begun to get signers among the members of the old Dairymen's League Inc. At the annual stockholders' meeting of the League, held in Jersey City, N. J. in December, 1920 it was decided by unanimous vote to terminate the sales agency work of the League on March 31, 1921.

of the League on March 31, 1921. By May, 1921, 54,000 of the members of the old organization had signed the pooling contract of the new association and the latter began to put into operation its plans for the collective marketing of milk. At the date of this writing the Dairymen's League Co-operative Association Inc., has a membership of about 70,000. Like its parent, its activities extend over six states: New York, northern Pennsylvania, northwestern New Jersey, the western rims of Connecticut and Massachusetts, and northern Vermont.

The details of the pooling plan; the methods by which the association handles the members' products and obtains for them the highest market prices; the effective educational campaign conducted through advertising and publicity to encourage the more general use of milk; the plan whereby co-operative buying is done for members; how the association keeps in touch with its huge membership; how it operates its own plants and disposes of the product; how the thousands of accounts are kept and the checks sent out promptly to individual members each month; these and other interesting phases of the subject the writer hopes to take up in future articles.

#### HOW PROPER SPRAYING IN-CREASES POTATO PROFITS

on the several farms to be capable of the same arguin of work. Then, too, some first ork more easily than others a some farmers prepare their ground more carefully than others. Nevertheless, the figures given per acre are fairly close, and worthy of consideration. Considering the figures already given on an acre basis we find that it requires about 68.3 man hours and 54.5 horse hours to grow an acre of potatoes, yielding 112 bu. By the use of a power sprayer (horse drawn, and costing \$150.00) we find that it requires 77 man hours and 91 horse hours and an outlay for spray materials of \$3.59 to grow an acre of potatoes yielding 207 bu. For an increased investment then of an increase in man hours of 8.7 hrs. and of horse hours 35.5 hours and a cash outlay of \$3.59 for spray materials we get an incressed yield of 95 bushels per acre.

The question, then, before each

The question, then, before each farmer is whether he can afford the added investment and the added expense and labor which is required spraying with bordeaux, for the increased yield he will get. "Spraying is a form of crop insurance for spraying with bordeaux, for the increased yield he will get. "Spraywhose premiums are all dividends.

#### THE EXPERIENCE POOL

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

#### FOR CROWS IN CORN

Take 4 or 5 tablespoons of Kreso No. 1 dip, mix through one bushel of corn just before planting, will not stick or bother in planter. Do not cover more corn than needed because nothing will eat it, although not at all poison. I tried this on a lot near the woods where I had always been bothered, with good success.—F. B. T., Plymouth, Mich.

#### FOR WHITE DIARRHOEA

If R. R., Ashley, Mich., will give chickens 1 gallon of sour milk or buttermilk, with a tablespoon of saleratus in, once a week, it will not only prevent but will cure the worst cases. My feed is oatmeal.

A good treatment for pneumonia is grease the lungs with olive or sweet oil, then cover with powdered lofelia, putting a bandage around to hold the powder on. And mix one teaspoonful of quinine to half cup of lard and grease under arm pits.

Mrs. I. S. Ray should feed her sheep onions for pneumonia. I think if she would cut open one of the dead sheep's head, she would find grubs are killing her sheep. If so, take and mix equal parts of coal oil or kerosene with sweet milk and put a tablespoonful up each nostril, holding the head back.

This is good by experience. Use every other day for a week. Sheep should have 1 pint of oats and bean fodder to eat, and keep out of the storms.—A Farmer's Wife.

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Animal Industry Department

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Knowing from terrible experience the suffering cause! by rheumatism, Mrs. J. E. Hurst, who lives at 508 E. Olive St., B-363, Bloomington, Ill., is so thankful at having cured herse? that out of pure gratitude she is anxious to tell all other suffers just how to get rid of their torture by a simple way at home.

Mrs. Hurst has nothing to sell. Merely out out this notice, mail it to her with your own name and address and she will gladly send you this valuable information entirely free. Write her at once before you forget.

#### VETERINARY. DEPARTMENT

DR. W. AUSTIN EWALT, EDITOR

HORSE LAME

I have a mare 9 years old that has been lame in her right hind leg since last fall, and as near as I can locate the trouble it seems to be in the ankle soint. When she isn't used for a while she seems to get all right, but as I drive her again she gets lame and stays lame for a few days. She limps more when trotting than when she walks. She hasn't been used but very little all winter and she seems to be in a perfect condition in every other way. What do you think the trouble is? And what should I do for it?—W. J. W., Elmira, Mich.

From the description you have given you have described no symp-

given you have described no symptoms upon which a diagnosis could be given, however, if you will kindly answer the following questions I believe I will be able to advise you intelligently: 1st. Does this animal show any symptom of the lameness when standing in the stall? 2nd. Is the lameness more pronounced when first taken out of the stall, or is it more pronounced after driving a short distance? 3rd. Pick up the foot and flex the hock joint as tight as you can to the body or flank, hold the leg in this position for a few minutes, then let the foot down and lead her straight ahead, and note whether or not the lameness is more pronounced. Examine the inside of the lower part of the hock joint very carefully and see if there isn't a small enlargement there. I am in-clined to think that possibly the trouble is in connection with this

CATARRHAL CONDITION

CATARRHAL CONDITION

Am asking information about a cow that I have. She had some trouble cleaning last November after calving. It took her about a week. She did not come in heat until last February. I gave her nux vomica two weeks before she came in heat, but every once in a while lately she passes a white matter with urine and I do not know what is the trouble. Has not come in heat since I took her away the first time, February last. She is in fair condition, milks good and she feels good but I am worried about her passing that thick puss. As I am just starting out and she is a valuable cow will appreciate your advice.—Reader, St. Clair County.

When a portion of the afterbirth is retained, there follows usually a catarrhal uterine discharge which continues indifinitely. This discharge usually makes its escape when the cow is in recumbent position, several ounces being emitted daily in some cases. The discharge has a putrid odor and usually cows suffering from this condition can be detected in the herd by the odor alone. In other instances the discharge escapes only at intervals of two or three weeks, usually about the normal periods of estrum. While the general condition and well-being of the cow is not effected to any extent as long as the condition confines itself to a catarrhal affection, cows so affected should be considered as giving impure milk. The milk from cows so affected is unfit for human consumption if from no other standpoint than esthetic one. Cows suffering from catarrhal conditions of the uterus as the result of retention of all, or a part of the after-birth frequently become sterile. Treatment is far from satisfactory. Tonics and good feed may help some. Two dram doses of powdered nux vomica morning and night will do more in these cases than any other drug I know of.

LAMBS GET SCOURS

Would like to know what to do for lambs that have the scours. Every one after they are a day old seem to get it. Some won't eat. Have brought them into the house and put them by the stove, tried to force them to eat by feeding with a spoon, some will for a day and others spoon, some will for a day and others won't. After a few hours they get so they cannot swallow. Have a queer noise in throat.—W, K., Whitmore Lake, Mich. This disease is caused by the Bac-ilus-Comminis, a small, thick, rod-shaped organism. Other germs are thot to cause or assist in the in-fection. New born lambs, a day or two old, seem to be the usual victwo old, seem to be the usual vic-tims. The lamb becomes dull; loses its appetite, and the feces passed at the first are a bright yellow, later a foamy, grayish-white. The wool is matted, and streaks of mucus are lamb becomes very weak; the eyes grow glassy, and the victim drops





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Sired by a Pontiac Aaggie 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!

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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.

TOR SALE—TWO BULL CALVES, A HOLtein and Durham about 3 months old. Both
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Sire's dam has 7 day A.
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ITHLEA FARMS Herbert L. Smith, Prop., Shiloh, Mich.

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JOHN GRONENWETT. Carleton, Mich.

#### HAMPSHIRES

A CHANCE TO GET SOME REAL HAMP-shires. Boar pigs, sired by Gen. Pershing Again, Gilt Bdge Tipton, Messenger All Over 10th. Gen. Pershing 2nd., and other great boars. Writes for list and prices. DETROIT CREAMERY HOG-PARM, Route 7, Mt. Olemens, Mich.

to the floor and dies in a stupor. The temperature is about normal, and as death approaches, drops to subnormal.

This is not a common disease of the range, but is usually found in low, marshy pastures, or sheds which contain the infection. The logical treatment is to isolate all the apparently healthy lambs, and give the sick ones intestinal antiseptics; a drop of formalin, in a little milk, or sulphocarbolates. The immediate slaughter of those hopelessly affected is advised. Prevention is the best method to pursue and the most satisfactory to all concerned.

#### PIGS' TAILS DROP OFF

I bought a registered Poland China sow at a sale for \$80. She farrowed 11 pigs 7 of which lived. They are 3 weeks old and they have a disease of the tail. It breaks out around the tail in little pimples, then the tail seems to dry up like it was burnt, and drops off. What is it, cause and cure?—C. G., Ithaca, Mich.

The disease or conditions to which

The disease, or condition to which you refer appears to be very rare in this country, however, it has been the writer's privilege to visit a farm, in company with one of the repre-sentatives of the Federal Bureau sent to investigate the reported outbreak of this disease, and, owing to the fact that these particular cases were found to be connected with an outbreak of hog cholera, we were unable to determine the exact cause and treatment was unsuccessful. I would suggest that you use a lime and sulphur dip, or nicotine dip, repeating every five days for dippings, provided that the quarters are cleaned and disinfected and the thick scags are removed so that the dipping solution may gain access to the parasites. Some of the old chronic cases may not respond readily, if at all, to treatment because of the thick, wrinkled skin which protects the parasite.

#### DISEASES RABBITS CONTRACT

What diseases do young rabbits have, and what would you do for them? One died about a week ago, and another is sick. I call it slobbers. They chew all the time and their tace gets wet and sticky. They die in about a day after they are taken sick.—G. F., Davison, Mich.

Not a great deal is known about the diseases of rabbits, but it would take a long article to discuss what is known. Probably the most serious infectious disease is occidiosis. In this disease the liver is badly in volved. In order to prevent the dsease isolation of infected animals, and a very thorough and consistent disinfection would have to be practiced.

Probably young rabbits suffer more from nutritional disturbances than from any other trouble. I would suggest that you make a careful study of the diet of these rabbits. There may be an unbalanced ration or a lack of succulent food or mineral matter, an excess or a deficiency of necessary food constituents.

We have had some experience with first-cutting alfalfa hay with guinea pigs. This has produced death in a great many cases.

We would suggest that one of the sick or dead rabbits be sent to this laboratory for study. We shall be very glad to make a report on any such animals submitted without any charge to the sender. A very complete account of the nature of the diet and the conditions under which the rabbits are kept should accompany the speciman.—Ward Giltner, Professor of Bacteriolgy, M. A. C.

## RUIT and ORCHAR EDITED BY FRANK D. WELLS

GRAFTING PEARS

Can young pear trees be grafted and when is the best time? What kind of limbs should be used? Are pears, apples and plums all grafted in the same way?

—A. J. C., Osceola County.

These three fruits can be grafted and in the same way. Grafting is mostly done in April, but in an early spring, like this year, it can be done in March. Use the ripened wood of the previous year's growth scions.

#### LUTHER BURBANK'S NURSERY

Is the plant wizard, Luther Burbank, in the seed business? I received a catalogue from a Luther Burbank, Santa Rosa, California, offering what is claimed to be new varieties of plants and grains said to have been originated by Luther Burbank, or is it a shark using his name?—R. M.

The Luther Burbank Nursery at Santa Rosa, California. Undoubtedly, there are many "sharks" as you aptly call them, who are making dishonest use of the Burbank name and fame, but the page from the catalogue which you send has the appearance of being genuine. That is as much as we are able to say at present.

#### CRANBERRIES

I have four acres of muck land, too cold for corn and not drained enough for celery or onions, but dry enough to work in dry weather. No hopes of a drain for years. Would this grow cranberries? We are growing fruit on our place and would like to know the cost of a nurseryman's license.—C. B., Eremont, Indiana.

There are few places where the cranberry can be grown profitably without a considerable outlay in preparation. The land must be easily drained of surplus water but retain enough to keep from drying out in summer. Muck land is first cleared of turf, then covered with for a three or four inches of sand much to hold the moisture and to keep out weeds. A reservoir or stream of water is needed for flooding in spring and fall. All of this makes the growing of cranberries far from a simple process. How-ever, the returns are often large for

A nurseryman's license in Michigan costs \$5.00, to which should be added \$3.00 for inspection if a grower of stock. Nurserymen who do not grow anything, but buy stock and retail it, pay the license fee of

\$5.00, but must file with the State Nursery Inspector a list of the growers from whom they expect to their stock, for which a fee of \$1.00 is charged. All nurserymen outside the state doing business in Michigan are classed as dealers. If stock is grown under contract for a nursery, a license is not required, but inspec-tion is necessary. In case the inspection of a nursery requires more than half a day's time the charge is \$5.00 for each full day, together with the extra expense, should there be any. A bond for \$1,000.00 is required from nurserymen.

#### ASTROLOGY AND NURSERYMEN

In this new era, when the farmer who tills the soil needs nurserymen who raise seeds, vines, plants, trees, chickens, stock, etc., by astrological laws, why should you not supply that advertising information from firms all over the U. S.?—M. E. H., Elcajou, alifornia.

The trouble is, no nurseryman of our acquaintance is doing business among the stars. They are still on earth and there is some doubt as to where they will go next.

NOTES AND COMMENT

To raise fancy strawberries, train the runners along the row, leaving them to stand about four inches apart, then cut off all the other plants. This will make a single row of plants, which will bear heavily, and as there is no crowding, the fuit will be large, not so much of it as on a matted row, but better in quality. The apple scab is not limited to the fruit, but attacks blossoms and leaves as well, hence the importance of frequent spraying. When the blossoms show the pink, after the petals fall and a third time about two weeks later, should give the trees a good start. The same treatment should be given pears.

\* \* \*

It is surprising to notice how often fruit trees are planted on wet ground. If there is anything an apple or a peach detests, it is wet feet. The trees may grow, but they will rarely bear well.

grow, but they will rarely bear well.

There is a demand for the Russet apple, but not on the general market.

Those who know what a good apple is, or should be, in the spring are asking for the old-fashioned Roxbury or Golden Russets, such as they were on grand-father's farm. Now that the day for parcel post trade is fruit has arrived, quality should be made to count.

Orange rust appears in May and continues during the summer. It infects the raspberry and is detected by the leaves, which look as though covered with an orange-colored dust. The only remedy is the spade. Dig out and destroy all plants that show signs of the disease. Even though a single leaf only shows signs of the rust, the plant is doomed. Orange rust is not uncommon on wild plants in some localities.

#### HUCKLEBERRY CULTURE

ZRA LEVIN, formerly muck crop specialist of the M. A. C., but now director of the State Bureau of Agricultural Development writes the Business Farmer as follows:
"Reading over the Business Farm-

er this afternoon, I noted a letter concerning huckleberries. So that your readers be not misled, may I note the fact that huckleberries will not grow in all muck. They will not grow in the high limed mucks. One of the unpublished observations which I have made in this state is that I have never seen a huckleberry plant growing in a hard water muck. In every case where huckleberries are found the water is low in lime content so that it is readily known as soft water muck.

"Observers in Southern Michigan will admit that they have never seen a huckleberry in marshes which are fed by springs. Huckleberries are usually found in those marshes where surface water collects and where the acid conditions are produced which allows the huckleberry to propagate.

'This is all understandable when we consider that scientists have shown that a fungus exists on the roots of the huckleberry and other similar plants, growing with it and acting in the same capacity as the germs in the nodules on the roots of legumes. One of the unique characteristics of this fungus is that it will only live where the soil is acid. This accounts for the difficulty which many have had in propagating the huckleberry successfully. In the New Jersey experiments with the im-proved varieties of blueberries or huckleberries, this difficulty was experienced, to make the soil acid and

"From the point of view of horticultural development our bureau is especially the tap roots. There are ities of the huckleberry on our acid marshes and it is hoped that the agricultural college will take up this question of huckleberry culture in Michigan as a practical problem for the immediate future.

#### WALNUT TREES

TN a late issue of Michigan Business Farmer, a reader makes inquiry as to propagating the walnut I have lived nearly all my life in a section where walnut trees were a natural product. We have a tree in front of our house, that 1921 bore 8 bushels of walnuts after they were shucked. This tree was from a knot brought from Steuben Co., Ind., and planted where it now stands, about forty-two years ago. We have trees now bearing that came from the fruit of this tree. This tree is on a pine sand ridgebut the better the soil the better the crop will apply to the walnut as well as to everything on the farm. have nearly a hundred small trees from nuts planted in the fall of I would not transplant in 1920. the fall. Care must be exercised in preserving all fibrous roots and especially the tap roots. There are quite a lot of walnut trees in this vicinity, all having come from this one tree. Had I put out walnut for shades, where I put elm and maple thirty-five years ago, I might now be reaping a financial benefit as well as the shade only. This tree has blossomed nicely. It should bear a good crop this year.—P. P. Miner, Saginaw County.

#### DRIED APPLE-PECTIN PULP A SUCCULENT FEED FOR COWS

THAT dried apple-pectin pulp should prove a valuable adjunct to the fare of the dairy cow is the conclusion drawn from analysis and feeding trials conducted by the Bureau of Chemistry, United States Department of Agriculture, in collaboration with the Bureau of Animal Industry. This feed made a favorable showing when compared with dried beet pulp and corn silage.

Apple-pectin pulp is the by-product remaining after pectin has been extracted from apple pomace, or, as it is sometimes called, cider-press cake. After the pectin has been extracted about three-fourths of the total weight of the pulp is water,

rendering it subject to rapid spoilage. Heretofore it has been thrown away, but it has been found that when the pulp is dried it can be kept for a considerable time and, because of its reduced weight, handled and shipped economically. Some manufacturers have recently installed evaporators for drying the pulp in order to

market the product for stock feed. The feeding 'experiment included a preliminary test with one cow for period of 20 days, and a later one with 6 cows. The dried pectin pulp was always mixed with three times its weight of water several hours before feeding. In the first test the cow was fed corn silage for 20 days, then, after a transition period of 5 days, she was given pectin pulp for 20 days, and, after another transi-tion period of 5 days, she was fed corn silage for another 20 days. In all these periods grain was fed in connection with the roughage.

The average production during the corn-silage-feeding periods was 312 pounds of milk and 14.65 pounds of butterfat. During the period when pectin pulp was fed the cow made 356.9 pounds of milk and 15.68 pounds of fat. Although this test showed that the pulp produced 14.7 per cent more milk and 7.1 per cent more butterfat than the corn silage, the results can not be considered conclusive.

In the second and more extended experiment the pectin pulp was compared with dried beet pulp, a feed that it resembles more closely than corn silage. The six cows were fed for 30 days on beet pulp soaked with three times its weight of water, then, after a transition period of 10 days, they were fed for 30 days on pectin pulp soaked with a similar quantity of water. The soaking was from one feeding time to the next, but in warm weather the pulp should not be allowed to soak for more than one or two hours. The pectin pulp contained approximately 7 per cent crude fat (not all of which is true fat), 7 per cent crude protein, and 26 per cent crude fiber, as compared with 0.5 per cent crude fat, 8 per cent crude protein, and 20 per cent crude fiber in beet pulp. The two feeds are similar in being able to absorb water readily.

The cows while on the ration containing the beet pulp produced 4976.5 pounds of milk and 171.86 pounds of butterfat; while on the pectin-pulp ration they produced 4375.7 pounds of milk and 152.93 pounds of fat. Forty pounds of the wet pulp were offered to each cow The palatability of the pectin pulp did not appear to be so high as that of the beet pulp, since the cows did not eat it so readily. seems that pound for pound of dry matter the pectin pulp is superior to corn silage and perhaps interme-mediate between the silage and beet

The loss of appetite for the pectin pulp by some of the cows may be attributed to the fact that it was the less familiar feed and that the second test was conducted during the summer when cows are more apt to tire of such feeds. While this feed can not be considered of unvarying palatibility, it is thought that when dairy cattle become accustomed to it they will eat it readily. No ill effects have followed its feeding, but it is always advisable to use caution in feeding large quantities of any feed containing many apple seeds.

#### MRS. LUTES WINS IN TRACTOR CONTEST

FTER a lively race in which the A winner was in doubt until the final votes were received. Mrs. Charles Lute of Farmington, Mich., was declared the winner of the Allis-Chalmers Tractor which was offered as a prize for the person re-ceiving the largest number of votes for subscriptions secured for Miichigan Business Farmer. The contest has been going on since first of May and ended at midnight on May 31st. Two of the other contestants crowded Mrs. Lute for first position and with a few more subscriptions could have taken first position from her. Great interest was displayed throughout the contest as the contestants seemed to appreciate the value of the prize being offered.



### **Drive Out Disease**

Your flocks and herds represent a cash investment. Good sense suggests that you keep them in living-quarters where they are not exposed to their ever-ready enemies—contagious disease, lice and mites.

# ARBOLA

makes the job of whitewashing and disinfecting a matter of one operationturns a mean job into easy, rainy-day work. It increases the light more than whitewash and helps make buildings clean and sanitary—a condition necessary if poultry and livestock are to be free from the losses and troubles caused by lice, mites and contagious diseases.

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Carbola comes in powder form with a disinfectant already combined. It is ready to use as soon as mixed with water and can be applied either with a brush or sprayer to wood, brick, stone, cement or over whitewash. Carbola doesn't blister, flake nor peel off. It doesn't clog the sprayer and it dries out clear white. Carbola can be kept in powder form or mixed and left standing in pail without spoiling. One gallon covers 200 square feet.

And don't forget that the dry powder is unexcelled as a louse powder and costs less than most brands. Use it on poultry, cattle, horses, hogs, etc., just as other louse powders are used. Carbola is harmless to the smallest chick or to stock that licks a painted surface.

Your hardware, seed, drug or paint dealer has Carbola or can get it. If not, order direct. Prompt shipment by post or express.

20 lbs. (20 gals.) \$2.50 delivered 50 lbs. (50 gals.) \$5.00 delivered Trial package and interesting booklet 30c postpaid 10 lbs. (10 gals.) \$1.25 and postage 200 lb. bags \$18.00 Add 25% for Texas and Rocky Mountain States

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#### CO-OPERATION

DID YOU ever stop to think what the word "cooperation" really means? It is derived from two Latin words, co, meaning together, and opero, which means to work. Cooperation is working together! That is very simple, and yet it contains a truth so profound that men have not yet fathomed its possibilities. The great institutions of civilization are all based on cooperation. Without it there could be no family life, no churches, no schools, no government, society would be plunged into the abyss of hopeless anarchy, and human progress would become impossible. But what if we carry cooperation to its logical conclusion and insist that there is no more reason why men should not work together for the common good in industry and international relationships than in the home, school and the maintenance of government? What would happen to industrial autocracy, to privileged monopoly, to war? Cooperation says that they, too, belong to a caveman civilization. The crucial issue before world civilization today is just this: shall we cling to the jungle law of competition and continue to cut each other's throats, or shall we strive to construct civilization on an enduring cooperative basis? This is not a dream. It is hard headed realism. Unmitigated competition is leading straight to more war, more industrial strife, more social ruin. By cooperation alone can men work happily and peacefully together to create a higher civilization.

A MACHINE THAT "EATS" STUMPS

Mr. V. P. Smith, a Kalamazoo county subscriber sends us a picture and clipping describing a machine invented by a Southerner which literally "eats" stumps. He suggests that it may afford a solution to Michigan's land clearing problem. The account of this almost human contrivance says:

A mechanical device that chews up

human contrivance says:

A mechanical device that chews up stumps, roots and all, and bales them for use as fuel, is expected to clear thousands of acres of cutover land, now the despair of the farmers. The device is fastened to the front of a tractor. It looks like an aeroplane propeller—two great sharp blades crossed at right angles. These blades are pointed and closely set with sharp steel teeth. The operator drives his tractor to a stump and sets the device in action. There's a shower of dirt and wooden chips. The blade sinks 13 inches into the ground, destroying the deepest roots of the stump. In two minutes the stump has disappeared."

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

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

REGISTERED O. I. C. SPRING BOARS Sired by R. O. Big Prince. Write for prices. DETROIT CREAMERY HOG FARM, Route 7, Mt. Clemens, Mich.

O. I C & CHESTER WHITE SWINE
Choice poars of Feb., March
Advance Type and Busters
Giant Bloodlines.
Priced to sell. Clare V. Dorman, Snover,

Old'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. (F)

BIG TYPE O I C PIGS 8 WEEKS OLD Guaranteed.
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WE HAVE A FINE LOT OF BERKSHIRE spring boars for sale, sired by Longfellow's Double, Bob and Duke of Manchester. DETROIT CREAMERY HOG FARM, Route 7, Mt. Clemens, Mich.

## 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.

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#### FIRST DETROIT POLICE DOG TRAINING SCHOOL

A wonderful opportunity to get into an uncrowded field. Raise German Police Dogs. For information write to

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

SHETLAND PONY, 8 MONTHS OLD, \$50. H. W. GARMAN & SONS, Mendon, Mich., R. 3.

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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.

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White, Brown, and Buff Leghorns; Anconas; Black Minorcas; Barred, Buff and White Rocks, hode Island Reds; Wyandottes; Orlingtons. This stock is culled and bred on the plan of the strength of the strengt

you will send for a description and egg record this Prue Breed Practical Poultry, you will d stock that it will pay you to buy. Buy Day d Chicks this year and see the results you l get.

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We shall have 5000 Eight-weeks and Threemonths Pullets to sell in May, June and July in
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Top Quality Chicks, Spanish, Minorcas, Rocks, Reds, Wyandottes and Orringtons.

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MAM. BRANZE TURKEYS. HENS 8 LB. \$6 ms, 10 lbs. \$8. Eggs \$4 per 10. Prepaid in me. RALPH WISE NURSERIES, Plainwell, June. Mich.

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BARRED ROCK EGGS for hatching. Norman heavy laying, prize winning stram. MRS. JES-SIE B. DEAN, Mason, Mich., R 1.

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Baby Chicks \$20 per 100; Eggs \$1.50 per 15; \$8.00 per 100. Bred to lay. ROBERT E, KNIGHT, New Baltimore Mich. (P

JOHN'S BIG BEAUTIFUL BARRED ROCKS are hen hatched, hen raised 50 eggs \$5.50, 50, for \$5.00 (light or dark matings) postage paid. Circulars. JOHN NORTHON, Clare, Mich.

BUFF ROCKS—Bronze Turkeys—For 20 years, by J. C. Clipp & Sons, Bx. M, Saltillo, Mich.

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S. C. BUFF LEGHORN BABY CHICKS.
We have just the one breed.
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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 LAPHAM FARMS, Pinckney, Mich.

FOUND 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.

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HEIMBACH'S WHITE WYANDOTTES. EX-hibition and utility—Rhode Island Reds. Chicks all sold for the season. Hatching eggs half price C. W. HEIMBACH, Big Rapids, Michigan

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WHITTAKER'S RED CHICKS Both Mich-ligan's greabest color and egg strain. Catalog free. Interlakes Farm, Box 4, Lawrence, Mich-

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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, Cks, Pul. and Mated Pens always for saile. Eggs and Baby Chicks in season. 100,000 Incubator capacity. Write us and get the best.

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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 s1 SETTING, Parcel Post Paid. Thoroughbreds. Barred Rocks, White Rocks, Buff Rocks, White Wyandoettes, Anconas, Buff Minorcas, White Leghorns, Brown Leghorns, Rhode Island Reds, Buff Orpingtons. PHILIP-CONDON, West Chester, Ohio.

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Good layers, of large white eggs, good table
fowl. Also R. I. Red's eggs for sale, same
price. L. K. PRAUSE, Maple City, R. 3,
(P)

OUALIT! BARRED ROCK EGGS-15, \$1.50; 50, \$4.00. Park Strain. Postpaid; guaranteed. M. J & R. A. WILSON, R. 2, Kingsley, Mich.

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Rue Ribbon winners. Write for prices and information. Mrs. Roy Oakes, Hartford, Mich.

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

BABY CHICKS.



CHICKS WITH PEP
BIG JUNE AND JULY
PRICE REDUCTION
Try some of our full blooded DON'T STOP LAYING
KIND of chicks for June
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you big. Rocks, Reds, Anpringtons, Sil. Wyandottes, 13c; Leghorne,
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Thoroughbred varieties of Tom Barron English White Leghorns, S. C. R. I. 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 June and July chicks now at my new low prices. White Leghorns \$10 per 100; Barred Rocks, and S. C. R. I. Reds, \$12 per 100. Special prices on large lots. At these prices we advise placing your order as soon as possible. Interesting catalog free. Importer.

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Reasonable prices Get catalog
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#### WHY NOT

ANCONAS & WHITE LEGHORNS

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S. C. Buff Leghorns, one of the largest flocks in Michigan My price is in reach of all, only \$15 00 per hundred. Detroit win-ners, none better. LAPHAM FARMS, Pinckney, Mich

BABY CHIX, MAY AND JUNE DELIVERY.
Prices: Barred Plymouth Rocks, R. I. Reds,
Black Minoreas, White Leghorns or Anconas 25
for \$5.50; 50 for \$10.00 or 100 for \$16.00
prepaid. 100 per cent live delivery guarantee
Cur 12th year producing chix that please. July
price 2c per chix less, GREEN LAWN POULTRY
FARM. R. 3, Fenton, Mich.

## LAUGH AND THE WORLD LAUGHS WITH YOU

(Continued from page 19) to say that "Arch" -observes both wisely and well as he goes about his

daily task thinking epigrams:
"Dear Arch: You made some trouble for us last week. That thing of yours about 'A bow-legged Girl is Happy Although She's in Awful Bad shape,' got the town police after us. Some women's club reported it to a policeman and he came down to see it. But he just laughed his fool head off and the ladies had to give up reforming that day."

And this: "Dear sir: Please send me (I inclose stamp) the squib you had on the blackboard sign post in front of your place on last Sunday. I read a part of it, but didn't get to see it all and can't drive back past as I am ill. It was something about girls."

Vaudeville actors send daily requests for "Archbold patter," asking for their special line—aviation, love, high rent, and so on. Hotels, public libraries, and teachers of English, the country over subscribe to his bulletins. Our Community Chest drive was immeasurably strengthened by the donated epigrams of Arch-bold. One of the favorites was "keep your heart softer than your head." Most any philanthropic organization can bet on Archbold when it needs peppy publicity. He knows that even propaganda can be made into live stuff that will attract the country at large. Some of his best things were done for safety campaigns.

"I'm through on religion, though," says Mr. Archbold, "and I never touch party politics. I once remarked that the word 'and' occured only once in the Bible—and letters are still coming to set me right."

Going back to how he does it and what they want, he keeps his finger upon the public pulse, first. He is very fond of the story of the city editor who sent every "cub" out after the story of the loose brick. If the cub came back full of pride because he had found the loose brick. cause he had found the loose brick and nothing else, he was not retain-If he came back full of stories which he had met upon the way, he was a fixture.

Archbold knows from observation that the modern girl, the high cost of rent and children, prohibition, automobiles, mothers-in-law, the income tax, courting days, and so on, come home sooner or later to everyone. Then he writes:

"The rich man has a twin six;
the poor man six twins."

"It isn't the first kiss that counts;

it's the upkeep."
"You can't loaf and have the dough."

'Some men grow; others just swell."

"Honest opinion, like homely women in street cars, stand longest. "Oily to bed and oily to rise is the

fate of a man when an auto he buys.'

Archbold knows that folks will laugh because they are made that way and that all this risibility needs is a little tickling. Whether they laugh according to Darwin's theory or not bothers him not a bit. Darwin, you remember, says that we humans laugh and kiss as a relic of the ten million years ago when, as fish, we used our mouths for nearly every function and that we still use them to express the emotion of mirth.

R

One wonders if it is far-fetched to call this wonderful success of a new type of advertising somewhat of a return to the days of picture writing. Millions of people get in passing his slates a picture of a saying that might not stick if seen in print. prominent minister wrote this to

Mr. Archbold:
"We do not use symbols and visible illustrations enough in our schools to impress great truths on the mind. Your slates are like marble base reliefs which tell a story to the eye in themselves. They remind us that the great sheet let down from heaven was a picture lesson to Peter."

We wonder, too, if it is far-fetched to recall that the abiding fame of Benjamin Franklin and King Solo-mon is probably due to their ability to speak pithily and pointedly. Mr. Archbold believes that every



# DAY OLD CHICKS

Special for June and July

## \$10.00 AND \$12.00 PER 100

Our English Type White Leghorns and Brown Leghorns are the greatest laying strain of today

Eleven years of breeding has made this stock good.

With long deep bodies and the large combs, they have the egg producing qualities in them. Eleven years of hatching and shipping chicks assures you good first class chicks. We guarantee safe arrival and satisfaction, or your money back.

17,000 Chicks Every Week Till August 15th
S. C. English type White Leghorns are good and profitable layers, and our extra selected are of the

It has never been our aim to put out cheap chicks, but to give our customers chicks that will be good layers and bring our customers a good profit.

We have been in the poultry business eleven years and are offering you chicks of the best layers at a very reasonable price.

PRICES FOR JUNE AND JULY, 1922 \$12.00 Per 500 \$57.50 Per 1000 \$115.00 S. C. English type White Leghorns, extra selected
S. C. English type White Leghorns
S. C. Brown Leghorns, extra selected
S. C. Brown Leghorns, Standard Per 25 \$3.00 100.00 50.00 3.00 12.00 57.50 115.00 2.50 5.00 10.00 50.00 100.00

We ship chicks by parcel post and pay the postage up to your door, and guarantes safe arrival. Our terms are cash with order, but we will book your order if you send one-fourth of the amount with the order, and the balance just before chicks are to be shipped.

PROMPT SHIPMENT—Orde from this adv. to save time, and we will write you at once when to look for the chicks and also will mail you jur instructive catalogue, or write for catalogue before ordering.

THE WOLVERINJ; HATCHERY

H. P. Wiersma, Proprietor

ZEELAND, Mich.

## ABY CHIX

The Old Reliable Breeds S. B. White Leghorns

#### Barred Rocks Anconas S. C. Brown Legherns

Here we are, just a few hours from your door, with baby chix 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 to-day for handsome catalog in colors. YARD, Route 5, Box 11, Holland, Mich.

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. G. 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 will prove it.

#### PROGRESSIVE POULTRY FARM BOX L

HOLLAND

MICHIGAN



You ought to have some of our certified | 'lefficiency chicks' to make you money this full and winter. We are making special June prices on our stock. White and Brown Leghorns, \$12 per 100; Barred Rocks and S. C. Reds, \$14 per 100; White Wyasdottes \$15 per 100. Sent parcel post prepaid with guaranteed delivery. Order from this ad.

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

#### CHICKS GOOD

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.

#### HATCHERY QUEEN

ZECLAND, MICHIGAN

# NABOBK JUST-RITE Baby Chieks

1½ MILLION CHICKS Postage PAID 95 per cent live arrival guar-anteed MONTH'S FEED FREE with each or-der. 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 Brared 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

### CHICKS! CHICKS!



It will pay you to look over these low prices for June and July delivery. Better chicks at real bargan prices. Pure S. C. W. Leghorns, \$5.25 for 50; \$10 for 100; \$47.50 for 500. Pure Barron Eng. Leghorns, \$5.75 for 50; \$11 for 100; \$52.50 for 500. \$11 for 100; \$52.50 for 500. \$100;

HOLLAND HATCHERY Holland, Mich.

#### BABY CHICKS

FULL LIVE COUNT GUARANTEED From hens of heavy laying strain. S. C. White and Brown Leghorns and Anconas, \$5 for 50; \$10 for 100; \$47.50 for 500. R. I. Reds and Barred Rocks, \$6.50 for 50; \$13 for 100; \$62.50 for 500. Prepaid Parcel Post right to your door. Order now from this ad.

WINSTROM POULTRY FARM & HATCHERY, Zeeland, Mich.

#### 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 REDUCED PRICES FOR JUNE. To your door by Prepaid Parcel Post.

THE UHL HATCHERY, Box 502.

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

writer and advertising man should write epigrams. He does all this at home in the evenings. His daytime task is being advertising manager of a \$35,000.000 corporation, editing the National News, second oldest house organ in the United Sttes, and two or three other publications.

—Reprinted by permission from Cleveland Plain Dealer.



#### CARE OF SUMMER (HICKS

WITH proper treatment the later spring and summer chicks may be as easily and successfully raised as the earlier ones and with nearly equal profits. The error most frequently made by those desiring to raise these chicks and the one which is almost sure to mean a heavy loss, is in placing these young chicks on the same range on which the earlier and older ones are being raised. This should never be done if it is possible to avoid it and it is usually easily avoided.

Place the quarters for these chicks on an entirely new and uncontaminated range where there is an abundance of shade and loose an abundance of shade and loose soil covering a good portion of the range. An ideal location is the small berry patch or plot. Usually this has been cultivated to some extent during the Spring months and the soil is loose and moist. The new growth of vines have developed by June fifteenth or July first to such an extent that the ground is well shaded and here in the moist earth are an abundance of insects which will interest the chicks and keep them busy. Another location for their range is in a plot of corn in which rape has been thinly sown early in the season. The corn alone will answer and afford a good range but the shade will not be dense enough to retain the moisture in the soil during a long dry spell as well as with the rape.

The requisites for the best success in rearing the summer chicks may be summed up as follows: A clean new range to which no other chicks have access, plenty of shade, fresh water frequently and proper food. The food requirements are the same as for the earlier chicks except that we would advise a liberal ration of milk in some form and would consider this milk ration very essential. If the natural milk, sweet or sour, or in the shape of cottage cheese, is not available, some of the prepared dry butter-milk foods should be provided. They may now be obtained at almost any feed or supply store.

These June, July and August hatched chicks may be made to show nearly as much profit as the earlier ones if properly and successfully handled and where the poultry is raised largely for the home table the males as broilers or roasters during September, October and Nov-ember will certainly be welcomed. The pullet will usually come into full laying in the spring at a time when the earlier hatched ones are slacking up in their egg production.

Those who find that their farm or range is not as fully stocked with chicks as they had planned to have it, should not hesitate to add a sufficient number of these later hatched chicks to fill their quota or number and if care is taken with them and a range given them as suggested there is no reason why they may not prove quite profitable, especially so since the first cost is usually considerably less than the cost of the earlier hatched.

#### LEG WEAKNESS

Could you please tells me through your paper what is the matter with my chickens? The first thing I noticed was that they could not stand up or walk around very good. They are that way for a few days and then they are all right again. They are all last spring's chickens and the ones that are affected are my laying hens. Their combs are red and they eat good but cannot stand up at times. It lasts about one or two days at a time. I am giving them the scraps from the table warm every merning.—E. W., Bendon, Mich.

Leg weakness is a condition in

Leg weakness is a condition in which the birds cannot bear their

own weight or have difficulty in doing so. It occurs in young birds as well as old, but there is a possibility that the cause in young birds is different from that in old birds. In adult birds leg weakness may be, and is no doubt in this case, due to rheumatism. I believe to some exten this is the cause of leg weak-ness in younger birds. This condition may also be observed in birds that are heavily fed and that grow rapidly and where the bird's weight appears to increase faster than their strength. Overcrowding and close ventilation are no doubt contributing factors. Leg weakness or paralysis among old birds is widespread in the United States. In addition to the leg weakness which at times results in a total loss of the legs, there is often noted a fetid diarrhea. The bird may or may not have a loss of appetite, it gradually becomes emaciated and finally dies. In severe cases, the bird in

the later stages lies helpless upon its side, often with one or both legs extended backwards from the Leg weakness among baby chicks at times appears suddenly and with a change in environmental conditions it disappears just as suddenly. The worst cases die and the milder ones recover. The condition may affect one, or only a few birds. The same condition also applies to old birds. I might dwell with considerable length on this subject but it is unnecessary in this instance for I attribute the primative cause to rheumatism and advise giving two-grain doses of salicylate of soda times daily, together with a balanced ration.—Dr. W. A. Ewalt, Veterinary Editor.

Combine Bail and Water Travel— For an economical summer trip to points East. D. & C. Steamers leave Detroit daily at 5:30 p. m. for Cleveland, East-ern time. 15 to 25 per cent reduction on auto rates.



TEN WEEK OLD PULLETS BEST LAYING BREEDS ON EARTH

25,000 large, strong, super hatched chicks every week from Hogan tested flocks culled out semi-annually by our Poultry experts.

#### PRICES FOR JUNE AND JULY

Per 500 Per 100 Per 1000 \$10.00 \$47.50 \$95.00 \$35.00

BROILERS (Odds and Ends) . . . . \$4.00 \$7.00 \$35.00 EXTRA SELECTED STOCK AT \$2.00 PER 100 HIGHER 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, \$158.00 worth of eggs in February."

Mrs. Wyttenbach, Amherst, Ohio. writes: 'I sold \$357.30 of eggs in two months from 200 pullets of your stock.'

#### Raise Good Stock and Reap a Golden Harvest

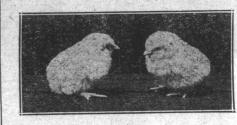
Intelligent chick buyers of today do not take chances with ordinary stock. Our enormous output enables us to sell these money makers at a price that positively cannot be equalled.

We Ship Thousands of Chicks Each Year

Every shipment is sent by Prepaid Parcel Post and we guarantee 100% live delivery. Order direct from ad, or send for illustrated catalouge.

WRITE FOR PRICES ON PULLETS

Wyngarden Hatchery, Box B, Zeeland, Mich.



# BABY

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 send P. P. Prepaid and Live Arrival guaranteed—SEND FOR OUR FREE CATALOGUE TODAY

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



-BARRON STRAIN-

S. C. WHITE LEGHORNS. ALSO HEAVY LAYING ANCONAS

REDUCED PRICES FOR JUNE

S. C. English White Leghorns and Anconas, 50 for \$5.75; 100 for \$11; 500 for \$52.50; 1007 for \$105.

LIVE DELIVERY GUARANTEED BY INSURED AND PREPAID PARCEL POST Order direct from this ad. and save time. Circular free

**BOX 500** 

STAR HATCHERY HOLLAND, MICH.

Egg Bred Chicks



Selected thoroughbreds. Prize winners at National Egg Laying Contest, Mo. 1922. June and July chicks make November layers. Now is the time to buy. 8. C. Anconas: \$13, 100; \$7, 50. S. C. White Leghorns: \$12, 100; \$6.50, 50. Erras Star mating. Shephard Anconas: \$16, 100; \$8, 50. Barron Eng. White Leghorns, \$14, 100; \$8, 50. Barron Eng. White Leghorns, \$14, 100; \$8, 50. Barron Eng. White Leghorns, \$14, 100; \$7.50, 50. Thousands ready for shipment every Tuesday. Parcel Post Prepaid. Guaranteed alive and healthy at your door. Catalog free.

FRANK A. VAN BHEE

Box B,

Zoeland, Mich

## BABY CHICKS

FROM SELECT, HEAVY LAYING HENS IN S. C. WHITE AND BROWN LEGHORNS, BLACK MINORCAS, ANCONAS, BARRED ROCKO AND RHODE IS. REDS. JUNE PRICES: S. C. White and Brown Leghorns and Anconas, 50 chicks, \$5; 200, \$10; 500, \$47.50. Rocks Reds and Minorcas, 50, \$6.50; 100, \$1300; 500, \$62.50. Postpaid to your door and full live count GUARANTEED. Order from this ad and save time. REFERENCE Zeeland State Bank. Instructive Circular Free.

# ARKET FLASHES

TRADE AND MARKET REVIEW THE past fortnight has witnessed

further improvement in the general industrial situation, but a sharp decline in the prices of most farm products. The automotive in-dustry and allied lines are again in full swing though where all the business is coming from or how long it will continue are matters of the purest conjecture. It is said that there are still two million men out of work, but employers' associations point out that this is only very slightly above the normal unemployment which is always considerable because there are many men who will not work when they can.

The last financial statement of the railroad was the best for many years, showing a substantial gain in gross earnings and a material decrease in operating expenses. Threats of rail strikes are, however, a disturbing factor and apprehension as to the outcome of the rail situation has not

entirely been appeased.

Building operations in many parts of the country are humming again, with the result that prices on materials are tending upward. Farmers who intend to build this year would do well to make as many of their purchases now as possible, for high-er prices on lumber, brick, cement and other building materials are quite likely to show further gains

as the summer advances.

Planting conditions in this state are generally favorable, though the soil is dry and hard in many local-ities because of the lack of rain. Some sections of the state have not been visited with a sprinkle of rain since the three-day down-pour of the middle of May. Fears are expressed that unless rain comes soon the hay crop which gave such fine pro-mise a few weeks back will be short.

Generally speaking, there is a better feeling among farmers as they enter the new crop season, than for over two years. They feel that the "worst is over," and while lower prices are anticipated on the grains until the size of the new crop is definitely except that the feeling is nitely ascertained, the feeling is general that prices will recover with the beginning of winter. At least no fears are expressed that wheat will drop below a dollar or other crops decline in proportion.

#### WHEAT

June 7-During the past weeks wheat continued to decline in General interest was moderate. There was a desire on the part of the public to take a position on the constructive side of the market, but this was restrained by the fear that owners of the large stocks of wheat accumulated during the month of May would have trouble in finding a market for the grain. There is more wheat in Chicago at present than there was in the entire visible supply a year ago according to re-ports. Whether or not this will prove detriment to the trade and be a burden of the market remains to be seen. People who own most of the cash wheat are confident of their position. They think that exporters will have to come to them for their supplies as there is little wheat at supplies as there is little wheat at the seaboard and the surplus sup-plies at Kansas City and Omaha have been drained. An increase in export buying is noted, not much of a gain, but enough to show that wheat is wanted over there. Holders believe that an advance here will bring an increase in toreign buying because they need the do not want to pay high figures for it. Increase in domestic milling demand is noted at several points, but it does not yet amount to much and has little effect on values. In the Detroit market cash handlers find plenty of demand for all the good winter wheat they can secure. Local mills take to the grain sparingly, but the east and south are active buy-Crop news was generally good, although Texas reported black rust damage and there were numerous complaints of red rust from various parts of the belt. European news

#### MARKET SUMMARY

Wheat easy after recent slump. Corn and oats inactive. Butter and eggs in good demand and steady. Poultry quiet. Cattle strong and demand good. Sheep steady. Hogs active and higher. Potatoes stronger at Chicago. Previsions higher.

(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.)

was largely of a depressing character. However, it becomes increasingly evident that the crops over there will be smaller than last year. Prices

Detroit—No. 2 red, \$1.21; No. 2 white and No. 2 mixed, \$1.19.
Chicago—No. 3 red, \$1.18 1-4.
New York—No. 2 red, \$1.28 1-2;
No. 2 hard, \$1.30; No. 2 mixed, \$1.31 1-2.

Prices one year ago-Detroit, No. 2 red, \$1.56; No. 2 white and No. 2 mixed, \$1.51.

#### CORN

June 7-The tone of the corn market during the past two weeks has been from steady to weak while declines in price have amounted to from 2c to 3c on the larger markets. Demand improved some during the latter part of this period, but receipts increased enough to offset any bullish tendency. The bears are very active in the grain market and grains in general are easy. Corn is expected to remain in this condition for the next several weeks, providing weather conditions are favorable, and price changes will be slight and of a downward trend in general.

#### Prices

Detroit—No. 2 yellow, 65c; No. yellow, 63½c; No. 4 yellow, 62c. Chicago—No. 2 yellow, 58 3-4 ½ New York—No. 2 yellow, 77%c Prices one year ago—Detroit, No. 2 yellow, 65½c; No. 3 yellow, 64 1-2 cents; No. 4 yellow, 61 1/2 c.

#### OATS

June 7-Oats continue slightly weak in sympathy with wheat. Prices have declined some but changes have been small. Present indications are that there will be no changes of importance in prices in the near future. But when changes do appear they should make for a higher level, because the old crop is about gone and wet weather curtailed planting this spring so this year's crop will be a small one.

#### Prices

Detroit—No. 2 white, 421/2c; No. 3 white, 40 1-2c; No. 4 white, 35@

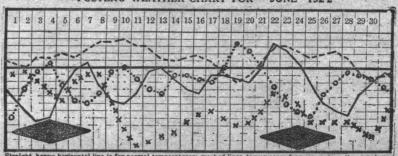
Chicago-No. 2 white, 37 1-2@ 40c; No. 3 white, 35 1-4@38 1-2c.

New York—No. 2 white, 48c. Prices one year ago—Detroit, No. white, 43c; No. 3 white, 41 1-2c; No. 4 whte, 38 1-2c.

#### THE WEATHER FOR NEXT WEEK

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

FOSTER'S WEATHER CHART FOR JUNE 1922



veen meridian 90 and Rockies crest; broken na and Mississippi; X Jine, east of meridian

WASINGTON, D. C., June 10—About June 10 one of the two most severe storms of June will be in operation near meridian 90 with high temperatures on Pacific slope and in southwest, including New Orleans; low temperatures northern sections east of Rockies. During the five days centering on June 10 frosts and a few hail storms have been expected east of Rockies crests and north of latitude 40. From June 10 to 17 storms and rains will decrease, good crop weather will prevail with only a few exceptions. That week is expected to bring best crop weather of the month particularly where the harvests are in progress.

particularly where the harvests are in progress.

A very important severe storm period will prevail during the week centering on June 24 and I advise to put all harvest work and other outdoor affairs in condition for that bad weather. It will be good crop weather except a few small hail storms, some injury to cotton and where grain harvests are in progress. From June 12 to 20, not much rain on the continent, temperatures will average lower than usual for all north of latitude 37 and warmer than usual for all south of that line. Cotton cropweather will improve and grain cropweather will improve and grain cropweather will continue good.

The great European drouth of 1922 is beginning to have effects; intense heat has been general in that country. European people do not realize that it is the beginning of their destruction unless they help each other instead of trying to destroy. It will require all the surnlus crops of America to save southern Europe from a famine equal to that of Russia. Don't forget that I gave a long in advennce warning of the Russian drouth of 1921.

Now I will give a warning to North America. One-half of it will make a total failure in the winter grain harvests of 1924. I have already told you that Australia, the East Indies. Oceanica west of meridian 180, will fail in the crops to be harvested in January, February and March, 1923. Those countries make their crops during our winter. These coming events are almost as sure as the sunrise. There is no possibility of mistake. I am permanently located in Washington and always ready to defend these drouth forecasts. In a general way they are perfect and are the only weather forecasts that will ever be perfect. South American winter grain has just been sown. It will fail in the harvests of January to March 1923.

These are exceedingly important warnings, given for the benefit of North American peoples. The real friends of my work will benefit by the warning. They will follow the advice because they know that it will be better than mere guessing. With me / the people of this continent come first but I really hone that Europeans may be benefit

mere guessing. With me the people of this continent come first but I really hope that Europeans may be benefit ted.

The American friends of Europeans and Australians should call the latter's attention to these expected events; it would save at least a few from disasters.

The hurricane season is coming. A tropical storm is expected the last days of June. It may interest Hawait, possibly the Phillippines. Not a hurricane but a tropical storm is expected in West India the last days of July; also last days of August. About November 25 another West India storm. Hurricanes do not seriously threaten for coming season.

#### RYE

June 7—Rye prices got started downward during the first part of the past fortnight and to date have been unable to stop, declining as much as 2c one day this week and 1c the other days. This grain seems to be acting in sympathy with wheat.

Prices Detroit—Cash No. 2, 98c. Chicago—No. 2, 94c. Price one year ago Detroit, cash No. 2 \$1.52.

#### BEANS

A Detroit correspondent to the Price Current Grain Reporter vouch-safes the opinion that the bean deal is cornered as it is almost impossible for the trade to gets to the goods. Beans have advanced the last fortnight from \$8.50 to \$9.25 at Detroit with some firms quoting even higher prices. This is now the highest market in the country, quotations at other points being 50 to 75 cents below the Detroit range. Trade is not active owing to the high prices and many markets report the trade refusing to pay the prices ask-ed. Foreign beans are not showing up in any great quantities, but it is certain that prices cannot advance much higher without bringing out goodly quantities of all varieties.

Prices

Detroit—C. H. P., \$9.25 per cwt.
Chicago—C. H. P., \$8.50@\$8.75

per cwt: red kidneys, \$8.50.

New York—C. H. P., \$7.50@\$8.25

per cwt. Prices one year ago-Detroit, C. H. P., \$3.50 per cwt.

#### POTATOES

Prices sagged at most points last week but the current week shows a slightly better feeling, with prices up a little in Chicago. The feeling that there are still quite a number of potatoes back in the hands of deal-ers and farmers has a bearish effect upon the market, which is hard to overcome.

Prices Detroit-\$1.76 per cwt. Chicago-\$1.65@1.80 per cwt. New York-\$1.34 per cwt.

#### HAY

June 7—Daily receipts of hay are small and demand for the better grades is such that the good hay is promptly snapped up. Prices are well sustained.

#### Prices

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

Chicago-No. 2 timothy, \$23@25; light mixed, \$24@25; No. 1 clover,

\$20@21.

New York—No. 2 timothy, \$28@
31; No. 1 mixed, \$25@28.

Pittsburg — Standard timothy, \$23.50@24; No. 1 mixed, \$20.50@
21; No. 1 clover, \$20@21.

Prices one year ago—Detroit

Prices one year ago—Detroit, standard timothy, \$19@20; No. 2 timothy, \$18@19; No. 1 light mixed, \$19@20; No. 1 clover, \$15@16.

#### BUFFALO LIVESTOCK LETTER

THE receipts of cattle Monday were 100 cars. Our market opened strong to 10c higher on medium weight and weighty steer cattle which were in moderate supply, sold strong; bulls were in good weight steers were in moderate sup-ply, sold strong; bulls were in good supply, sold steady; all grades of cows were in heavy supply; dry fed cows sold steady; grass fed cows sold from 50 to 75c lower than dry fed cows; stockers and feeders were in very light supply, sold strong; yearlings were in good supply, sold strong.

Top on heavy cattle was \$9.35 for one load of prime Angus (steers, averaging 1304 pounds.

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Top on yearlings was \$9.55 for two loads of choice quality, prime yearling steers averaging 743 pounds.

The hog receipts Monday were estimated at 85 cars or 12,800 head.

There was pretty good competition for all grades. The market opened strong to 10c higher on all grades. It was a one price deal of \$11,25 for packers grades of hogs. Shipping orders were for light hogs weighing from 180 pounds down to fill fresh meat orders and offerings of this kind sold at a slight premium of 10c over the packer's kind. Yorkers, lights and pigs sold at \$11.35; roughs, \$9.00, with a few bunches of packers up to \$9.50; stags, \$5.00 to \$6.00.

The receipts of sheep and lambs today were estimated at 2800 head. Choice calves sold 50c higher than last week's close, best selling from \$12.00 to \$12.50; throwouts, 120 to 140 lbs., \$9.00 to \$10.00; heavy throwouts, 160 to 190 lbs., \$7.00 to \$8.00; heavy fat yeal calves, \$8.00 to \$9.50, as to weight and quality.

#### LIVE STOCK QUOTATIONS

LIVE STOCK QUOTATIONS

The following prices were paid at Detroit on Tuesday, June 6:

Cattle

Best heavy steers, dry fed \$ 7 50@ 8 90

Best handy weight butcher
steers, dry fed \$ 800@ 9 00

Mixed steers and heifers,
dry fed 7 50@ 8 00

Handy light butchers, dry
fed 7 7 50@ 8 00

Handy light butchers, dry fed 6 00@ 7 75

Light butchers, dry fed 5 50@ 6 50

Best cows, dry fed 5 50@ 6 50

Butcher Cows 5 50@ 6 50

Butcher Cows 5 50@ 6 50

Cutters 3 25@ 4 00

Canners 2 50@ 3 25

Choice bulls, light 6 00@ 6 50

Bologna bulls 5 50@ 6 50

Stock bulls, thin 3 50@ 4 50

Feeders 6 00@ 7 25

Stockers 55@ 6 50

Milkers and springers 45 00@ 75 00

Calves

Best \$12 00@ 12 50

Others 6 00@ 11 50

Sheep

Best lambs \$13 00@ 13 25

Fair lambs 10 00@ 11 00

Light to common lambs 5 50@ 6 80

Springs lambs 12 00@ 14 50

Fair to good sheep 5 50@ 6 00

Culls and common 1.50@ 2 50

Mixed \$11 10

Pigs. according to weight 11 00@ 11 10

Roughs 8 85

Extreme heavy 9 50@ 10 50

Stags 5 00@ 5 75

BOATS MISCELLANEOUS PRICE

#### MISCELLANEOUS PRICE QUOTATIONS

Detroit, Wednesday, June 6,
Butter—Best creamery in tubs,
33½ @ 34½ per lb.
EGGS—Fresh, current receipts,
24½@25c per doz.
APPLES—Good Winter varieties.
\$2.75@\$3.75 per bu; western, \$3.50
@\$4.50 per box.

@\$4.50 per box. STRAWBERRIES - Michigan,

\$4.50@\$5 per 24-quart case for good

ASPARAGUS- Michigan, \$3.50 1/2

\$3.75 per case.

ONIONS—\$2@\$2.25 per crate, HONEY—Comb, 22@25c per lb. LIVE POULTRY—Broilers, 2-lb. and up, 45@50c; small broilers, 35 @40c; large fat hens, 26@27c; old roosters, 16c; geese, 13c; ducks, 20@22c; turkeys, 30c per lb. DRESSED MEATS—Small hogs,

DRESSED MEATS—Small hogs, 12@13c; heavy hogs, 10@11c; choice calves, 15@16c; medium calves, 12@13c; large calves, 10@11c.

NEW VECETABLES—Beets, \$2.25@2.50 per hamper; carrots, \$2.25@\$2.50 per hamper; turnips, \$1.25@1.50 per hamper; rhubarb, 30@50c per doz; green and wax beans, \$1.25@1.50 per hamper, green onions, 30@40c per doz; green peas. onions, 30@40c per doz.; green peas, \$4.50@5 per hamper; radishes,\$1@1.25 per bu.

#### WOOL MARKETS

The situation in the mid-west continues firm, with the tone perhaps even a little stronger. One sale of 1-4 to 3-8 blood wool—a carload at 40@41c—was reported by one of the large pools. This strength con-tinues in spite of reports that buying in the west is lagging somewhat. Locally, buyers seem anxious to get r they can pi rent price levels.

Quotations on mid-western or socalled "native" wools in large lotssuch prices as are obtained by the farmers' pools—are as follows: Fine and medium staple, 47@48c; 1-2 blood staple, 45@46c; 1-2 blood clothing, 42@44c; 3-8 blood wools, 38@40e; 1-4 blood, 37@38c; low 1-4 blood, 30@32c; braid, 26@28c. Western territory wools sell at prices which range from these levels to 4c lower, for the corresponding

The Commercial Bulletin, Boston, gives wool quotations as follows:

Ohio and Pennsylvania fleeces-Delaine unwashed, 50@54c; fine unwashed, 38@48c; 3-8 blood uncombing, 48@50c; 3-8 blood combing, 44@46c.

Michigan and New York fleeces-Delaine unwashed, 40@50c; fine unwashed, 38½40c; 1-2 blood unwashed, 46@48c; 3-8 blood unwashed, 43@45c; 1-44 blood unwashed, 42@43c.

Wisconsin, Missouri and average New England-1-2 blood, 44@45c; 3-8 blood, 43@45c; 1-2 blood, 41@

REVIEW OF THE BUTTER MARKETS

WEEK ENDING JUNE 3ED

A heavy demand for butter for storing purposes was the factor of most importance in the butter markets during the week ending June 3rd. The first half of the week was in May and during this time the markets were generally weak and unsettled. Considerable quantities of butter were carried over from the week before and to this was added liberal receipts. With the exception of 90 score cars of Centralized which were firm because of demand for delivery on May contracts, the supply of all grades of butter was excessive. The price trend of the markets was lower and by Wednesday there was a decided weak feeling on the markets. On Thursday, June 1st, however, true to the expectations of most of the trade there was a heavy increase in the demand for butter for storing purposes which, with a good consuming demand and some demand for speculation, soon absorbed the excess supplies and caused the markets to react to a much firmer position, 92 score butter closed the week in Chicago at 35c the pound.

## WEEKLY MARKETGRAM U. S. Bureau of Markets and Crop Esti-

WEEKLY MARKETGRAM
U. S. Bureau of Markets and Crop Estimates

WASHINGTON, D. C., For the week ending June 3, 1922.

HAY—Market fairly steady on good grades because of light receipts, poor quality, slow sale, movement and country loading light. Alfalfa market weak. Quoted June 2, No. 1 Timothy, \$22.50 Pittsburgh; \$23, Cincinnati, \$23; \$26.50. Chicago; \$26.50, St. Louis; \$18, Minneapolis; \$12.75, Kansas City.

FEED—Wheat feeds weak and lower. Demand very light. Eastern resellers pressing sales of transit feed, Corn feed active and in good demand. Prices steady. High protein feeds very dull and in light demand. Quoted spring bran Chicago \$19; Philadelphia \$26; Standard middlings, Chicago, \$20.25; Philadelphia \$27; Gluten feed, Chicago, \$32.85; Cottonseed meal. Atlanta, \$44; Linseed meal. New York, \$54; Hominy feed, Chicago, \$23.50.

DAIRY PRODUCTS—Butter markets have been unsettled during the week and price declines occurred although at the close today the tone is firm and the price tendency is upward. There is an increasing interest in buying for storage purposes and a good consumptive demand closing prices. 92 score: Chicago, New York, \$6c; Philadelphia, Boston, 36 12c. Cheese markets barely schady. Current demand appears to be trifle lighter and as yet no active buying for storage has occurred. Quality of current make good for season. Production outlook points to increase as pastures are in excellent condition in principal producing sections. Prices at Wisconsin Primary markets, June 2: Twins 18 1-4c. Daisies, 18 1-4c; Double Daisies. 17 1-4c Young Americas, Longhorns and Square Prints. 18 1-4c.

GRAIN—July wheat declined first part of week in sympathy with May future. The market then turned firm on revived export and milling demand, but broke sharply on liquidation by longs and stop loss. July wheat dropped 7 5-8c closing at \$1.14 7-8. Chicago. July corn down 2 3-8c at 60 3-4c. Closing prices in Chicago cash market: No. 2 red winter wheat \$1.17; No. 2 mixed corn 59c; No. 2 yellow corn 60 cents, No. 2 hard wint

down 4 3-8 closing at \$1.35 1-2; Kansas City July wheat down 5 3-8c at \$1.09 3-8.

LIVE STOCKS AND MEATS—Chicago hog prices declined 25 to 40 cents. Beef steers strong to 10 cents higher, with better grades of butcher cows and heifers average about steady. Feeder steer were scarce and sleady; Veal calves up 25 to 50 cents. Both fat and spring lambs declined 75 cents to \$1. Yearlings and handyweight fat ewes 50 cents to 75 cents lower; eavy ewes, \$1 to \$1.50 lower. June 3, Chicago prices, Hogs, top \$10.70; Bulk of sales \$10.05-\$10.60; Medlum and good beef steers-\$7.90-\$8.90; Butcher cows and heifers \$4.25-\$8.60; Feeder steers \$67.85; light and medium weight veal calves \$8.25-\$10.50; fat lambs \$9.75-\$12.85; spring lambs \$13.25-\$14.75; yearlings \$8-\$10.75; fat ewes \$3-\$7. Stocker and feeder shipments from 12 important markets for week ending May 26 were: Cattle and calves 62.404; hogs 12.527; sheep 18.343. Eastern wholesale fresh meat prices trended upward. Mutton advanced \$1-\$3; veal \$1-\$2; pork loins generally \$1; beef generally 50c; lamb unchanged. June 2 prices good grade meats: Beef \$13.50-\$15; veal \$15-\$17; lamb \$25-\$29; muiton \$18-\$20; light pork loins \$21-\$24; heavy loins \$15-\$21.

Jackson—Weather fine. Farmers finishing corn planting. Wheat and clover looking fine. More rain needed. Garden truck growing fast. Strawberries are

ripe and if there is plenty of rain will be a fair crop but nothing extra.—G. D.,

June 2.

Saginaw—Corn up and looking fine and most all cultivated. Beans going in fast, but need rain badly. All other crops looking splendid considering the drouth. Beans are \$8.65 but none to sell.—G. M., June 2.

Midland—Weather is cooler again, but corn seems to be doing fairly well. We, need rain badly. From all indications the fruit crop will be a fair one. There will be a large acreage of beans this year. I suppose the price will be low this fall.—C. L. H., June 2.

#### GEORGE B. HORTON DEAD

(Continued from page 3) the question and the tenacity with which it was kept before the people and the legislature was largely ow-ing to Mr. Horton's influence, which was reflected through the Grange and its allied organizations.

(Mr. Horton was a member of the constitutional convention in 1917, a member of the State Board of Agriculture during the Luce administration and for six years served as a member of the State Tax Commission and Board of Assessors.)

January 3rd, 1878, Mr. Horton was married to Miss M. Amanda Bradish, daughter of Norman F. and Caroline Bradish of Madison township, who survives him. He is also survived by three children, Mrs. Sidney Spitzer of Perrysburg, O., Samuel Horton, of Maumee, O., and Norman Horton, who lives at the Fruit Ridge home and who has been assuming gradually the responsibilities of the management of the Horton interests.

Kept Woods and Paid Mortgage Last year shortly before the big gathering at his home for the Farmers' tour, Mr. Horton related the story of his unusual success as a farmer. It was a simple and modest narrative revealing the sterling qualities of his plain, powerful char-

acter. He said:
"My father was known for his thrift and economy, but he was not selfish. Throughout his lifetime, when he was developing his land and making it productive, he talked about the coming generation.

applied it to the building of his fences, to the planting of orchards, to the care of the soil and of the timber lots. Incidentally he died a well educated man, although he had never gone to school after he was 14 years of age.

"When father died, mother said to me 'Take the land. Your sisters will agree to quit claims for \$30,-You can handle the debt. had faith in me somehow, and I went ahead although it looked like a big load. You can understand that \$30,000 was a lot of money in those days and farming was slow.

"Well, after I had started in to pay off the debt some Canadians who were buying ship timber came to the farm and looked over the wood that was standing. They said they would give me \$10,000 for a certain line of timber they

wanted, to make masts and spars.
"It looked to me like a lot of
money—one-third of the mortgage —and I could pay it without turning my hand. I told mother and she said, 'You know what your father would say. You wouldn't be ahead if you sold the timber. You would just be taking the money out of one pocket and putting it in the other, for you have your \$10,000 now in the timber.' I kept it and I have kept it since but you see it wasn't because it hasn't sometimes seemed to be easier to sell it."

Every one of the many Horton farms is today a standing testimo-nial of his belief in the doctrine of conservation and of his care to provide for the generations to come. Each has its woodlot carefully protected against the encroachments of men and animals. Frequently after he had purchased a tract of land he fenced off for the re-creation of woodlots portions of "Keep men and unimals off the land and nature will do the rest" was the simple guiding principle of his farm forestry. He declared that the woodlands "paid their way" and that if they did not it would be a patriotic duty to maintain them.

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# Our Remarkable Increase During the Last Five Months

ASSETS, MAY 31, 1922

Cash in Banks - - - \$127,413.94

Cash in Office - - - 6,046.50

Capital - - - 27,727.44

Furniture and Equipment - 16,700.22

Salvage Department - - 7,625.00

Accounts Receivable - - 5,235.90

Total, \$190,749.00

## \$47,430.87 added to Our Surplus in Five Months

CLAIMS AND LOSSES PAID

218 Fire and Theft - - - \$36,508.05 287 Property Damage and Personal Injury 39,741.82 663 Collisions - - - - 39,109.18 Total 1168 Claims and Losses amounting to \$115,359.05

8,812 Claims and Losses Paid to Date amount to over \$1,081,000

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