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DETROIT, NOVEMBER 13, 1920

CURRENT COMMENT

Sugar Beet Contracts

THE development and approval of an equitable sugar beet contract for next year's production is one of the most important problems now confronting a large class of Michigan farmers who are located in the sugar beet sections of the state. That substantial progress toward this desirable end is now being made is indicated by a recent announcement by the Michigan Sugar Beet Committee that the county delegates would be called together on December 15. This committee of five growers was appointed at a conference of representatives of twenty-six counties held at the office of the Michigan State Farm Bureau on October 19, as reported in our issue of October 30. This committee met last week and decided on the call of the county delegates for December 15 as above noted.

In the meantime, while the Michigan Beet Growers' Association and the State Farm Bureau are cooperating in the making of plans for the sale of Michigan's 1921 beet crop, the American Farm Bureau Federation is considering action of this nature on a national scale. The Utah and Idaho Farm Bureaus have asked that the American Farm Bureau Federation call a national meeting of representatives of sugar beet growers to consider a uniform contract for 1921. President Burton, of the Utah Farm Bureau, has called attention to a wide variation, both in the form of contract and prices paid for beets in the various states, and President Howard, of the American Farm Bureau Federation, has indicated that a national conference in December is a likely plan.

In this connection a knowledge of the provisions of contracts in use in other states will be of interest to the Michigan beet growers. To this end the Michigan Farmer has secured data on the contracts in force this year in other states as follows:

The most favorable contract to growers is that made by the People's Sugar Company, of Utah, which offered two forms of contract, a flat rate contract providing for the payment of \$13.50 per ton for all beets delivered at factory or receiving stations, testing not less than twelve per cent sugar content, and a sliding scale contract providing for a base price of \$12.50 per ton for beets testing not less than twelve per cent sugar content, based on eleven-cent sugar in the New York market for the months of October, November, December and January, and an additional payment at the rate of \$1.00 per ton for each cent increase in the average price of sugar above

eleven cents. The growers originally contracted about one-half on each plan, but in order to meet the desires of growers after the contracts were signed the company permitted those who had contracted on the flat rate to change to the sliding scale, which practically all of them did.

The Amalgamated Sugar Company, of Utah, offered a flat rate contract providing for the payment of \$12 per ton for beets of not less than twelve per cent sugar content and eighty per cent purity. At a conference held last April with the Weber County Farm Bureau, a modification of this contract was agreed upon, which provided that in case the beets averaged fourteen and a half per cent or better in sugar content a sliding scale based on eleven-cent sugar became operative, and if the average sugar content was below fourteen and a half per cent the sliding scale should be based on twelve-cent sugar for \$12 beets, with \$1.00 per ton added for each cent per pound increase in the price of sugar.

The Utah-Idaho Sugar Company made a contract providing for the payment of \$12 per ton for twelve per cent beets, with an optional contract in Idaho providing for an additional payment of seventy-five cents per ton for each one per cent increase in sugar content above 15.5 per cent, and with a sliding scale provision based on eleven-cent sugar for \$12 beets, with the usual increase in the price of beets for a higher average price of sugar.

The Great Western Sugar Company, of Colorado, wrote a flat rate contract providing for the payment of \$12 per ton for twelve per cent beets. Later the company issued a statement to beet growers declaring their intention to make an additional settlement on a sliding scale basis, providing the total production reached a certain fixed amount. In this statement the company also proposed a conference participated in by delegates representing as nearly as possible the growers in all districts in which the company operates and by representatives of the company for the purpose of cooperating in devising a basis of payment for beets which would be satisfactory to a majority of the growers, and expressed the belief that such a conference entered into in good faith might result in a harmonious working agreement and the avoidance of the unfortunate controversies which have occurred the past few years.

In southern California contracts for beets were made on a new basis, which is a sliding scale depending both on the percentage of sugar in the beets and on the market price received for the refined sugar. This price basis has been developed in a chart starting with twelve per cent beets, which with sugar at four and a half cents per pound would be worth \$4.20 per ton and ranging up to twenty-two per cent beets, which with sugar at twelve cents per pound would be worth \$23.47 per ton. As an intermediate example, fifteen per cent beets with sugar at nine cents per pound would be worth \$12 per ton under this contract. This plan is claimed to be best adapted to California conditions owing to the great variation in sugar content of beets grown in different sections of the state.

This contract data, together with other data bearing on the general sugar beet situation, has been placed at the disposal of the Michigan Sugar Beet committee. These contracts are, as a general proposition, considerably better from the grower's standpoint than are the Michigan contracts. Under them the grower is obligated to furnish all the labor. The factories furnish the seed at twenty cents per pound. In one case the factory plants the seed at seventy-five cents per acre. In no other case does a factory contract to furnish labor to the growers.

A comparison of the provisions of these contracts with the Michigan contract in effect this year should convince any farmer that there is decided room for improvement in the latter. Hence no contracts should be signed by either present or prospective growers until a satisfactory contract has been approved.

Last year the beet growers' organization was hampered by the fact that many contracts had been signed before their fight for better conditions were under way. Due to this fact, and to conditions which promised a good price for beets under the contract offered, their efforts to secure a better contract were not successful. But the growers should not feel that the movement was a failure on this account, as important concessions along other lines were secured as a result of the movement. With the cooperation of the farm bureau which is in close touch with prospective as well as present beet growers, a constructive campaign for an equitable contract should be more successful. One result, and an important one, should be to convince the manufacturers of the wisdom of conferring with the committee, which the western manufacturers have not only been willing, but in some cases anxious to do, as above noted. There is no doubt that an equitable arrangement could be arrived at in Michigan as well as in other producing fields if Michigan growers and manufacturers are willing to cooperate to that end, as Michigan growers undoubtedly are.

The Voice of the People

THE result of the November elections leaves no uncertainty regarding public opinion in the United States on the vital international question growing out of the war. The overwhelming vote for the successful candidates for executive positions and the general success of republican candidates for congress was not wholly an expression of party preference. It was more truly an expression of Americanism and American ideals as held by the rank and file of American citizens. It voiced a demand on the part of the American people for the safeguarding of American interests in our relations with foreign powers, either singly or collectively.

It is fortunate that this expression was so unanimous as to leave the burdens of readjustment wholly up to the dominant party, which condition under our form of party government makes for constructive statesmanship when divided power results in political bickering. The responsibilities of the new administration will be great, and in the present emergency there is a general expression of regret that they cannot be assumed at once instead of many months hence. But while the desirability of early action seems apparent, great problems need the most careful consideration on the part of those who carry the burden of their solution, and months spent in their careful consideration are preferable to premature and ill-considered action, which may cause still greater delay in their ultimate solution.

Replace Scrub Stock Now

THIS appears to be a most opportune time to get rid of scrub breeding animals and replace them with pure-bred stock. It has been a long time since the margin between the quotations on live stock vended on our markets and prices received at public auctions of pure-bred stock was so narrow. Sales of pure-bred cattle and hogs particularly are on a much lower price level than a year ago. At some recent sales of dairy cattle a decrease in the price of both females and sires has been off as much as fifty per cent, while the

slump in pure-bred beef cattle started several months ago.

The economy resulting from the use of a better type of stock has not changed. The more efficient use of feeds is argument enough to warrant good farmers in replacing nondescript animals with the pure-bred kind. No matter how unprofitable market conditions may be temporarily, the man who keeps a commercial herd will find it easier to hold the cost of production down near the market price when he uses good live stock than when he uses scrubs.

Not only this, but just now there is a goodly amount of feed on our farms to carry this stock along to a time when the advantages of pure-bred animals will be more generally appreciated and as a result of a wider demand, prices for the well-bred stock in all probability will be sufficient to pay a handsome profit over what the markets pay for meat animals.

News of the Week

Wednesday, November 3.

ELECTION returns show a general landslide for the republican candidates; Harding's electoral votes will probably establish a new record of 404 of the 531 votes in the electoral college. The republicans will have a margin of 150 votes in the house and a majority of twenty-two in the senate. The entire republican ticket was elected in Michigan.—The alien land law is adopted by the electorate of California.—The public utilities commission of Michigan grants increased rates to the telephone companies outside the Detroit area.

Thursday, November 4.

THE prohibition vote in Scotland results in a defeat for the dries, although a substantial gain is noted in the number of dry adherents.—Election riots in Florida resulted in the death of two white men and one negro.—The executive officers of the British miners' federation declare the coal strike ended and advise the men to resume work.—Dr. Zayas, coalition candidate is elected president of Cuba.

Friday, November 5.

THE first German ship to enter the New York harbor since 1914 arrives.—Russian bolshevik forces are unsuccessfully attacking the line held by General Wrangel to the south of Perekop.—President-elect Harding declares that the new administration intends that the nation shall play its part in a new international association founded on peace and justice.—According to an official statement the Prussian government has paid ex-Emperor William over \$25,000,000 since he fled to Holland.

Saturday, November 6.

AN agreement has been reached by Great Britain, France and Italy, in which they will undertake to support one another in maintaining their spheres of influence in Turkey.—The Dutch government proposes the reduction of Holland's army by nearly one-half.—General Wrangel sends an urgent appeal to France and other allied powers for aid in the critical military situation confronting him in southern Russia.—The discovery of oil at Fort Norman in the Mackenzie river basin of northwestern Canada has started a spectacular rush of oil prospectors to that region.

Sunday, November 7.

A CLASH between troops under the command of D'Annunzio at Fiume and the Serbs is reported from Rome.—The inter-state commerce commission is seeking devices for the prevention of railway wrecks, extensive experiments now being conducted.—General Wrangel's military operations are now confined to the Crimean peninsula, where he hopes to hold out against the Russians.—French mine owners consent to meet the miners in an effort to settle their differences.

Monday, November 8.

THE Turkish government addresses a note to the powers, in which it declares that the present is inopportune for the ratification of the peace treaty by Turkey.—An arbitration treaty is signed between Sweden and Chile.—Portugal receives Germany's first envoy since the war.—Japan has decided to withdraw her troops from the Chentao area along the Korean-Manchurian border.—Chile recognizes the new Mexican government.

American Farm Bureau Scores

Leaving the Land Tax Bill and the One on Sales Prostrate on the Field—By C. Gregory

THE first game in the series to revise the federal tax laws has been won by the American Farm Bureau Federation. As a result, the Ralston-Nolan Bill, with its billion dollar tax on farm land, has been so far out-played that in all probability it will fail to hold a position in the minor leagues. The same thing is true of the proposed tax of one per cent on sales of all commodities, both wholesale and retail—a tax which would raise billions of dollars revenue, a large proportion of which would have to be borne by farmers. The taxation committee of the National Industrial Conference Board—representing the business and manufacturing interests of the United States—in its tentative report condemns both these forms of taxation as unsound. At the second national industrial tax conference at New York City October 22-23, while final action on the committee's report was not taken—the friends of the Nolan and sales taxes made so poor a showing that they did not get to first base.

American Farm Bureau Federation in the Game.

Not only has it opened the way to defeat these forms of taxation and save farmers billions of dollars, but it has also put itself in a position where the big business interests of the country know it and respect its powers. Credit for this splendid piece of work belongs largely to President J. R. Howard and to H. C. McKenzie, of New York. At President Howard's insistence, the business interests recognized for the first time the importance of agriculture as one of the nation's greatest industries, and added McKenzie to the taxation committee to represent agriculture.

At first McKenzie was almost alone in the fight against the sales tax. But his arguments and those of taxation experts who came to his aid, were so convincing that the committee changed front entirely, and in its report

sweepingly condemned the sales tax. At the conference last week the advocates of a sales tax made a strong fight to save it. McKenzie and Howard convinced most of the delegates, however, that a one per cent tax on sales of farm products cannot be passed on to the buyer, and that the farmer's profits are already so small that he cannot stand this additional tax. Furthermore, this tax is not economically sound, in that ninety-five per cent of the burden of the tax is passed to

sales taxers and advised that this plan be abandoned.

The committee was even more sweeping in its condemnation of the Ralston-Nolan bill.

"A wide-spread propaganda has been organized in support of this bill," says the report. "Not only does this bill embody the principle of the single tax in its most exaggerated form, but it would also operate to very substantially aggravate the very conditions which the committee in its recommen-

and that losses in business income in one year be deducted from the tax for the succeeding year. The loss from these sources will be \$280,000,000, or a total loss of \$1,180,000,000. This will be partially offset by an increase in freight and passenger taxes of \$148,000,000, leaving a net loss of \$1,032,000,000.

Government expenses for 1921 are estimated at \$4,859,890,327. While the committee feels that material decreases can be made in the cost of running the government it does not believe that there should be any decrease in the total amount of taxes collected. The government has a floating debt, consisting of short-time loan and tax certificates, of \$2,347,791,000. This should be paid as soon as possible. There are outstanding \$600,000,000 worth of war savings stamps which mature January 1, 1923, and \$4,241,128,295 worth of victory notes which mature May 20, 1923. In order to meet these obligations, at least partially, the committee feels that the annual surplus of revenue over expenses should be at least a billion dollars.

To offset the loss of revenue from the repeal of the excess property tax and the reductions referred to in the income tax it recommends the schedule of tax increases published on this page and new taxes, which should add \$1,293,500,000 to the federal income.

While this report is only tentative, and will not be formally acted upon by the national industrial conference for several weeks, it shows the way the lines are being laid for tax revision. Farmers have won a great victory in securing the condemnation of the sales tax and the Nolan bill by the conference. They can no doubt endorse most of the proposed new taxes, although the wisdom of a federal tax on automobiles and gasoline is very doubtful. The farmer uses his automobile and burns gasoline mainly for business purposes, and the proposed tax will be a tax on two necessary factors in food production.

1. Increase in corporation tax to 16 per cent.....	\$550,000,000
2. Quadruple stamp tax rates	134,000,000
3. Increase first-class postage rate to three cents..	72,000,000
4. Increase cigarette tax from \$3 to \$5 per M....	70,000,000
5. Increase tobacco rates from 18 to 24 cents lb..	8,000,000
6. Increase to 10 per cent rates on musical instruments, candy, chewing gum, and other so-called luxuries, except automobiles, trucks and accessories	70,000,000
7. Increase tax on perfumes, cosmetics, etc.....	6,500,000
8. Special license tax of 50 cents per H. P. on all motor vehicles	100,000,000
9. Gasoline, one cent per gallon	45,000,000
10. Sugar, two cents per pound	200,000,000
11. Coffee, two cents per pound	28,000,000
12. Tea, 10 cents per pound	10,000,000

the consumer, who in the majority of cases is the man of small means, while the wealthy classes would bear a proportion far below their just ability to pay. Their arguments were endorsed by Charles A. Andrews of the Gorton Pew Fisheries Company, Prof. Thos. R. Adams, of Yale, and Prof. Seligman, of Columbia, who also maintained that such a tax would be a bad thing for other industries than agriculture.

"The arguments against the sales tax are unanswerable," said Prof. Seligman. "It violates the fundamental principle of taxation in proportion to ability to pay." Otto Kahn, New York banker, also deserted the ranks of the

dations is striving to remedy. It would in many cases mean a tax so large upon property which is not in a form available for use in its payment that such property would have to be sacrificed at forced sale in order to realize cash with which to pay the tax. In this respect it would tend to bear especially heavily upon agriculture. The bill is also generally recognized as of the most dubious constitutionality."

The committee recommends the repeal of the excess profits tax, which will reduce estimated revenues for 1921 by \$900,000,000. It also recommends that surtax on reinvested incomes be limited to twenty per cent,

Should We Buy Feeds Now?

Get Mr. Sosland's Viewpoint

THE word is being passed around to "buy feeds, they're cheap enough." Those who are friendly to the idea of accumulating feed-stuffs now base their views upon the enlargement in demand usually witnessed late in the fall after pastures in many sections have been abandoned and cold weather has arrived. Few observers of feed trade conditions disagree with the "bulls" so far as demand is concerned, yet they can produce arguments which make the feeder question seriously the probability of the usual rise in prices with the advent of cold weather over the country. It is true that there are many influences strongly against rising prices this winter and the following spring which were not felt at this time a year ago or in previous years. On the other hand, feed prices are already comparatively low.

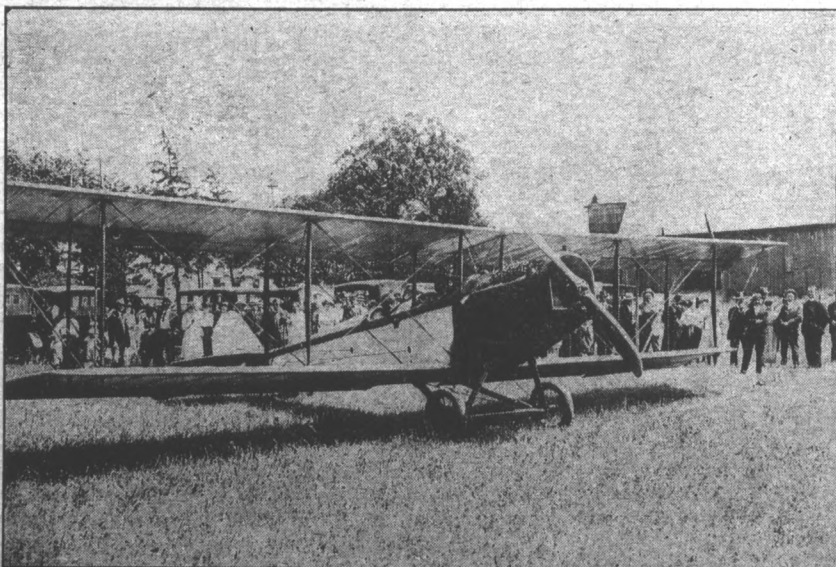
Downward revision of prices for cattle, hogs and sheep and the depression through which the dairy industry is passing are powerful influences in the market for feedstuffs. Within the past month hogs have declined more than three dollars per hundredweight, cattle about two dollars and sheep and lambs about one dollar. Naturally, the reduced returns from meat animals on stock yards cut down the value of the feedstuffs to the consuming trade. Lit-

tle has been heard in feed markets regarding the shutdown of many dairy plants in the east and at some points in the central states, yet the resulting shrinkage in the outlet for the products of the dairy cow is being felt by a sharp reduction in the demand for bran, alfalfa and clover hay, alfalfa mixed feeds and other commercially

prepared articles. The full extent of the reduced earning power of the dairymen of the east and other sections of the country is yet to be witnessed on markets. The claim is made by some observers of the feedstuffs situation, and there is, no doubt, basis for the belief, that the decline in prices for the meat animals and dairy pro-

ducts will cause the consuming trade to economize in purchases of feeds to the extent that the usual broadening in demand may not develop this year.

CORN has provided the axis on which the price reflector of the feed market cycle has moved downward. Corn, and oats as well, have declined more radically than other feedstuffs and have approached more closely their pre-war levels than any commodity used in the rations of meat animal producers or dairymen. Carlot offerings of corn on markets of the middle west are selling around eighty to eighty-five cents per bushel, which compares with a range of seventy-five to eighty-five cents prevailing in August of 1914, when the world was plunged into war. Oats are bringing between fifty and fifty-five cents on current markets, while in the month preceding the opening of the world war values were around thirty-five to fifty cents a bushel. Corn at eighty cents and oats around fifty-five cents appear ridiculously low compared with \$2.00 and \$1.25, respectively, as the prices prevailing at the opening of the summer season. And there are a great many students of the trade whose operations indicate a belief that both corn and oats have been carried below their in-



Mrs. Marshall Decides She Would Like a Look at Her Farm from the Air.

trinsic value, at least in a comparison with commodities generally.

However, there is nothing of a bullish character in the outlook for corn and oats. Farmers now are gathering the greatest corn crop in history, 3,216,192,000 bushels, which fact alone is a powerful argument against advancing prices for the coarse grain. The lessened returns from fattening hogs for market also will tend to reduce consumption on farms and thus permit of a freer flow of the grain to terminals, but this may be offset in a measure by comparatively lower prices for corn than for hogs. In such an event, farm feeding would be stimulated. Corn already is selling at a level amounting to hardly more than a cent a bushel net to farmers, and even less in many sections, and only where forced by maturing loans, lack of storage for holding or pressure of a similar nature, can free selling of the grain be expected. The statement has been made and given some consideration on markets, that farmers will substitute corn for fuel, owing to the high cost of fuel and disappointing prices offered for the grain.

Extreme bullishness on the corn market is not advisable, but I am inclined to the belief that corn will not remain below a dollar a bushel the entire crop year. This statement is made despite knowledge of the fact that the corn crop is the largest in history, that the aggregate of other feed crops also is a near record this year, that meat animals are on the decline and that deflation continues in progress. And along the same lines, close observers of the grain trade agree that oats will sell closer to seventy-five than to fifty cents a bushel in the middle west markets. Prospective buyers of corn and oats will do well to begin now the accumulation of their requirements of the grains.

In the radical depression in prices of the past month bran and shorts have played a conspicuous and probably significant part. At the present writing the mill offals reflect a stronger tone than has prevailed at any time since the readjustment got under way in July, and majority sentiment of the trade inclines to the opinion that the low point of prices for the remainder of the winter at least has been reached. From a low point of around \$25 to \$26 a ton in Minneapolis and Kansas City, and \$28 to \$29 a ton in St.

Louis and Chicago, less than half the peak reached in the early part of the summer, the market has rallied about \$4.00 a ton. Kansas City and Minneapolis, the leading milling centers, quote the mill offal around \$20 to \$30 a ton for prompt or December shipment, and sales as high as \$34 a ton are being made on other middle west markets.

Millfeeds Are Firmer.

The upturn in millfeed was brought about by the colder temperatures over the country, which forced an increased demand from the consuming trade. Another important factor in the improved tone of the bran market is the extremely light production of flour and feed by mills. In both the spring and winter wheat sections of the United States, flour millers are operating at an average of less than fifty per cent of normal capacity; in fact, thus far on the crop operations as a whole have hardly exceeded that total. And the prospects are not particularly encouraging for any sharp increase in the activity of milling plants, owing to an extremely light domestic demand for flour and inability to work large quantities to foreigners in competition with domestic wheat and the flour of other exporting nations. In this connection, however, much importance is attached to the recent decision of the United States Shipping Board in reducing the differential in ocean freight rates on flour over wheat from twenty-five cents to five cents per hundred-weight. Millers have contended that the discriminatory ocean freight rates resulted in an enormous movement of raw wheat and an insignificant amount of flour, thus checking operations of domestic plants and reducing the supply of bran and shorts for herds in this country. The export outlook is now therefore more encouraging, but it will probably be some months before important sales can be made, owing to the loss of established trade.

In addition to the small production of feed by mills, the stocks of bran and shorts in consumptive channels are extremely light. Instead of accumulating large supplies in warehouses to be merchandised during the winter and spring months, when demand is usually in excess of mill production, jobbers this year hold little if any feed. They have been short of money, and, because of the very erratic course of prices, have been reluctant to build up

their stocks, which they usually do in the early fall months. This, no doubt, will be felt in prices later in the year, and strengthens the view that a sharp setback in prices will not occur from the present basis.

Shorts also have strengthened, but not to the extent of bran, the enormous crop of corn wielding greater pressure on the heavier offal than on the dairy wheat feed. Gray shorts or flour middlings are bringing up to \$38 a ton in Minneapolis and \$35 in Kansas City, with St. Louis also quoting at \$38 and in extreme instances up to \$40 a ton. Brown shorts or standard middlings are almost stagnant, selling at a bran price. Shorts are feeling the effect of the depression in hogs. A spread of more than \$5.00 a ton between bran and shorts will probably not prevail for any lengthy period, the outlook being favorable for a narrower difference between the two mill offals than in many seasons.

Cottonseed Feeds.

Cattle feeders and other buyers of cottonseed cake and meal are wondering whether the time has approached to turn from the bear side. Only within the past two weeks demand for the high protein feed from feeders has shown marked improvement, which, in view of the almost stagnant trade with range and feedlot cattle owners and dairymen the last two or three months, is looked upon as a bullish movement. And, with the improved demand, prices have rallied slightly, but the market is still sharply lower, or at the lowest level since the entrance of the United States into the war. Prime cake and meal of forty-three per cent protein content is quoted around \$37 to \$38 a ton, basis Texas plants, and around \$45 a ton in the feeding territory, possibly as high as \$50 a ton in the more northern sections. At one time during the month the market was down to \$35 a ton, a full decline of about \$10 a ton compared with the early part of October. Southeastern markets are on the same basis approximately as in Texas and Oklahoma.

Slow selling of seed by planters, which is restricting operations of the crushing plants, is checking bearishness in the cake and meal market. Prices paid for seed recently have averaged around \$22 to \$28 a ton in the southwestern states, and below \$30 in practically the entire cotton belt, while producers as a rule are demanding

around \$40 a ton. Many claim that if they do not obtain this figure they will use the seed for fertilizer. But this is not to be given serious consideration, for demand for cake and meal even on the basis of present sales is not sufficient to absorb the offerings of mills. Both exporters and fertilizer manufacturers are buying on a small scale. The trade is not anticipating further material upturns in cake and meal, owing largely to the low price of corn and other feeds, yet bearish sentiment is not so much in evidence.

Stocks of Linseed Accumulating.

During the time that cottonseed feed was declining sharply, linseed cake and meal was displaying firmness. Now, with the strengthening in cottonseed cake and meal, linseed feed begins to undergo greater pressure. Compared with prices above \$60 a ton, basis Minneapolis, a month ago, and above \$70 early in the summer, the market has receded to around \$54 a ton, basis the northwestern crushing point. Crushers are accumulating a stock of linseed feed, owing to a lack of demand, and the outlook for prices is still favorable to a lower market. Feeders should buy linseed feed sparingly. It is far above a parity with corn, even considering the relative feeding value of the two commodities.

Depression in the market for alfalfa and other varieties of hay was carried to the extent that prices fell considerably under a cost of production basis. Because of the exorbitant freight charges, many shippers have been forced to dig into their pockets to meet some of the costs of loading their hay for markets which the selling price failed to cover. This has naturally reduced sharply the movement from the west and, with the extremely light arrivals, the trade reflects a firmer tone. But alfalfa and tame hay are yet too high, compared with other feeds, at least the better grades, and declines, though not sharp, may be expected. Still, colder weather is stimulating demand from feeders and there is some concern among prospective buyers as to the available supply on markets, which is increasing orders. The stocks of hay in the country are of enormous proportions, so fear as to future supplies is not well founded. Hay prices range up to \$25 a ton in Kansas City, with the cheaper grades down to \$10 a ton. Chicago quotes timothy around a top of \$32 a ton.

Potato Meeting and Show

By C. W. Waid, Vegetable Specialist, M. A. C.

IT is planned to hold the annual meeting and show of the Michigan Potato Producers' Association, an organization of potato growers of the state at the time of Farmers' Week, January 31 to February 4, 1921, at the Michigan Agricultural College. It is not proposed to follow the beaten path of some other potato organizations and have the show simply one of exhibiting high quality samples of potatoes. While shows of this nature have their place there is an opportunity to accomplish results by putting on what may be called an educational show. One feature of this potato show will be the showing of samples of potatoes in bushel lots taken from the fields which have been certified the past season. This will serve as a means of bringing the men who have seed potatoes for sale in close touch with those who wish to buy. It should be stated in this connection that in the very near future a list will be published of all of the growers whose fields of potatoes have been certified this season. Anyone interested can secure this list by writing H. C. Moore, secretary of the Michigan Potato Producers' Association, East Lansing, Michigan.

Another important feature of the

show will be graphic illustrations of various demonstrations which have been conducted the last year or two in Michigan. Most of these demonstrations have been carried on under the auspices of the college. Some have been the results of the activity of the soil improvement committee at Chicago, and a few of other commercial interests. We will aim in this connection to make it easy for everyone to see at a glance the benefit of superior seed, proper use of commercial fertilizer, seed treatment, etc. We believe that it will be a show well worth while. We would be pleased to have anyone who has secured good results from any practices which is not generally followed in Michigan, to join with us in making up this show.

If you can send to the college samples of these potatoes, we would be glad to have you do so. If this is not possible, we would be glad to have you send us the results of demonstrations and perhaps we can work out some plan of putting them on in connection with the show. Any potatoes sent to the college should be addressed to the horticultural Department, M.

A. C., East Lansing, and marked "for potato show."

One of the important matters of business which will be considered in connection with the annual meeting will be the best method of carrying forward the work of certified seed potatoes which was started in Michigan this last season. There is a growing demand outside the state as well as within for the Late Petoskey or Russet Rural potato for seed purposes. Last season a carload was sent to Pennsylvania and the results were so satisfactory that a larger quantity will be sent to that state this season. It is quite apparent that the Petoskey variety is one which does well throughout a wide territory and under varying conditions. It is a variety which will stand up better than most varieties under adverse conditions. Such diseases as mosaic, and leaf roll will reduce the value of certain varieties in some of the other states and the fact that the Petoskey is quite resistant to mosaic, and apparently not as subject to leaf roll as some varieties has caused the planting of it over a much wider territory than heretofore. It is possi-

ble for the Michigan growers to get in line to furnish seed to those outside states at a fair increase in prices over prices received for table stock. To certify seed potatoes on a large scale and place them on the market to best advantage is no small undertaking. It requires a great deal of careful planning and a considerable amount of money to handle the work properly. If this work is to develop rapidly as the need increases for certified seed of this variety, particularly, we must have a comprehensive, practical plan of not only carrying on the inspection work but of selling the seed as well.

We invite every potato grower who is interested in this phase of the work to arrange to be present if possible at the annual meeting which will be held at East Lansing during Farmers' Week. This is no small undertaking and we need the cooperation and assistance of many of the best potato growers of the state to work out this plan. We will be pleased to hear from individuals who anticipate attending this meeting. Write to the secretary of the Michigan Potato Producers' Association, H. C. Moore, East Lansing, Michigan.

Our Farm Bureaus and Their Work

In a Reconnoiter of Grand Traverse County our Raw Recruit Finds a Territory of Wonderfully Diversified Agricultural Resources

WHILE the Circuit Rider was "flivvering" through the staid and substantial counties of southern Michigan, a raw recruit was drafted to make a reconnoitering expedition into the Grand Traverse region, one of Michigan's choicest garden spots, and one of America's finest scenic sections. The Circuit Rider is probably congratulating himself on being permitted to continue his labors, of looking over some of southern Michigan's choicest farms, teeming with herds of Holsteins and Jerseys, fields of alfalfa, wheat, and beans, big red barns with silos attached, farm homes electrically lighted and electrically swept; farms where the plow, harrow, seeder, mower, and binder is pulled by a tractor; where the threshing, silage cutting, water pumping, feed grinding, milk separating, wood sawing, and even the family washing is done, in many cases, by mechanical power; where the farm crops and live stock are transported to market by truck; and where the farmer and his family make their weekly shopping and church-going trips and occasional pleasure excursions in an automobile.

But the Raw Recruit was "motored" in a six-cylinder over roads the equal of any in southern Michigan; over hills covered with forests of fruit trees; through valleys dotted with modern farm homes, where live stock is housed in up-to-date barns; past innumerable silvery lakes that would delight the heart of any fishing fan; over bridges spanning trout streams, where it was necessary for the driver to hold the Raw Recruit in the car until the stream was lost from view; and along the shores of beautiful bays dotted with the summer homes of thousands that are able to escape, for a part of each year, from the dust and smoke of the great centers of industry and trade.

TRAVERSE CITY, the commercial center of the Grand Traverse region, is located on Grand Traverse Bay, at the mouth of Boardman River. It is healthful, beautiful and admirably located. It is one of the objective points of western Michigan tourists. It is on the west Michigan Pike, Pere Marquette, Grand Rapids & Indiana, and Manistee & Northeastern Railroads. It has good hotels, a hospitable population, and is surrounded by delightful resorts and camping places, fine farms, magnificent orchards of choice fruits of all kinds, and some of the finest scenery to be found in the United States.

Grand Traverse county probably pro-

duces more cherries than any other county in the United States; it is one of the leading potato counties of Michigan; and successfully and profitably produces any crop grown in Michigan. The shipments of cherries in 1920 from Traverse City alone were one hundred and fifty-eight full carloads. The local express shipments would probably bring the total up to one hundred and seventy-five cars. In addition to this, many thousands of crates were sold to the canning plants at Traverse City and Northport. The fruit was unusually large in size, which compensated in large measure for the lighter setting of fruit. The prevailing price paid by local shippers was seven and eight cents per pound, or \$1.75 to \$2.00 per crate, with a slightly higher price for some of the choice sweet va-

ing orchard of cherries is the least of any of tree fruits, it can readily be deduced that this branch of the fruit growing industry is the most profitable. To its further credit may be added the fact that its regularity of bearing, freedom from diseases and insect pests, and hardiness are relatively greatest. All of these conditions have been conducive to the extraordinary development of cherry growing in this region as compared with other fruits.

AMONG the pioneer growers on the peninsula are E. O. Ladd, the Tompkins', and the Lardies. In the beginning the peninsula orchards were mainly apples and peaches. Occasional severe winters demonstrated that peach growing was a precarious venture, and the most of those orchards

Association had its inception in the early summer of 1919. It had been customary for buyers to flock to the Grand Traverse region early each year to buy the crops of individual growers. Coming as they did before the volume of the crop could be determined, the prices offered were necessarily fixed by the buyers at a figure low enough to insure them against loss regardless of the size and market value of the crop. In years of normal or under-production the growers were thus prevented from realizing the prices justified by the demand.

Mr. G. L. Burnham, an enterprising young fruit grower, a former student of Wisconsin University, had a vision that this difficulty could be overcome and personally canvassed a portion of the cherry district, and secured the signatures of about one hundred growers. Each signer agreed to only accept bids for their joint crop of cherries and not to make individual contracts as had been done in the past. Buyers were invited to meet with this organization and to submit sealed bids. As a result, their 1919 crop of red sours was sold for \$3.11 per crate, to a Chicago concern, which, after paying fifty cents per crate for picking and twenty-five cents for the crate itself, netted the grower \$2.36 per crate. All other varieties were sold to a local shipper for \$3.00 per crate. Compared with this result, a local canning plant paid nine cents per pound and furnished the crates. As the cherries for its use could be pulled from the trees, instead of being clipped as is necessary when they are shipped, the cost of picking was reduced to forty cents. A sixteen-quart crate of cherries weighs twenty-five pounds, so that those contracted to the canning plant netted only \$1.85, a difference of fifty-one cents per crate and a gain of twenty-seven and a half per cent in favor of the organization plan.

ROBERT A. WILEY, county agricultural agent, aided the organization from the beginning. Being a man of exceptional organizing ability and, being imbued with the soundness of the principle of collective bargaining and other cooperative activities, has succeeded in building up a strong organization of over five hundred members. The selling of the 1920 crop was affected through the Michigan Potato Growers' Exchange and the American Fruit Exchange.

The president of the Association is A. J. Rogers, of Beulah, and the secretary-treasurer is Robert A. Wiley, of Traverse City. The executive commit-



Potatoes Are a Leading Cash Crop.

rieties. While this is considered a good crop, it is not the largest on record, as over two hundred cars have been shipped in a single season from Traverse City.

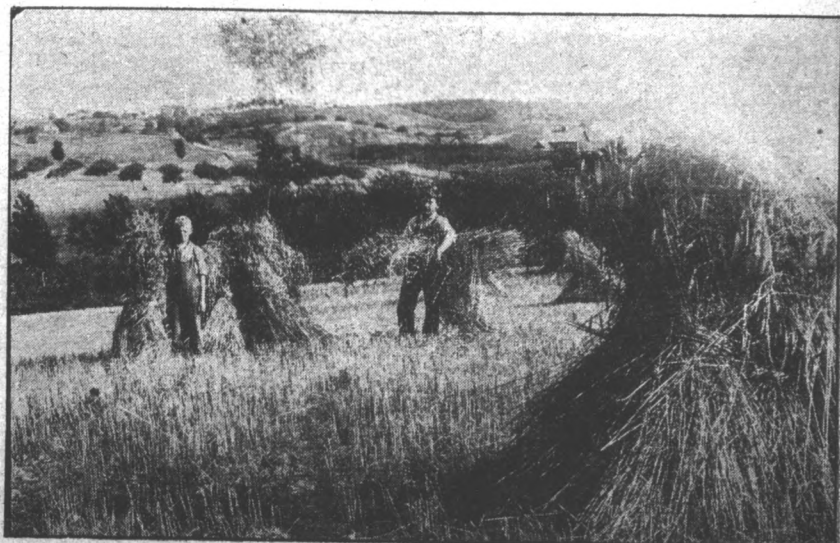
The development of the cherry industry in this region has been relatively rapid. It began on the peninsula, a narrow strip of land ranging from one to four miles in width and extending twenty miles north from the main part of Grand Traverse county, dividing Grand Traverse Bay into two arms, known as East Bay and West Bay. Being practically surrounded by water, the peninsula has the necessary and peculiar climatic conditions for producing the high-grade of cherries for which this region is noted. When account is taken of the fact that the income per acre is greatest, and the cost of producing and caring for a bear-

have been displaced by cherries. There are a number of large, fine apple orchards which are well cared for and which are profitable to their owners, but the cherry industry overshadows all others around Grand Traverse Bay. In 1919, when the prevailing price was around \$3.00 per crate, returns of two thousand dollars per acre were realized from some of the best blocks of trees; and fifteen crates is not an excessive yield for a mature tree in healthy condition. Like all crops grown on an extensive commercial scale, the problem of successful marketing the cherry crop has proved to be no easy task in recent years. But necessity being the mother of invention, a selling plan has been evolved that is proving to be practical and highly satisfactory to the growers.

The Michigan State Cherry Growers'



On the J. C. Home Cherry Farm.



An Unusual Stand of Rosen Rye.

tee consists of E. H. Wilce, of Empire; A. L. Hopkins, of Bear Lake, and Dr. J. P. Houston, of Traverse City.

At the annual meeting, held at Frankfort in May of this year, representatives from the Wisconsin and New York cherry districts were present. Several of the visitors addressed the meeting, after which it was decided that a national organization should be formed. Accordingly the National Cherry Growers' Association was launched with M. B. Goff, of Wisconsin, as president, and A. J. Rogers, of Beulah, as secretary-treasurer. The perfecting of the national organization will take place at its next meeting, which will probably be held in December.

Upon arriving at Traverse City, it was found that County Agent Wiley had been called to Lansing to assist in handling the grain department of the State Farm Bureau. During his absence, the county agent work is being cared for by Dr. J. P. Houston, secretary-treasurer of the local farm bureau organization. The "handle" attached to his name was acquired through his medical training and thirty years' experience in the practice of medicine in Chicago. Five years ago the doctor concluded he needed a change, and being attracted by the possibilities of the Grand Traverse region, located on a small fruit farm on the peninsula, three and one-half miles from Traverse City. Notwithstanding his many years of professional service the genial doctor is still in the prime of life and extremely active. He has about fifteen hundred trees, a few of which are in full bearing, and a considerable portion just beginning to produce fruit. His orchard is largely made up of cherries, but he also has apples, peaches and pears. The doctor is also interested and active in all progressive, agricultural and community movements. He has given his time and influence to building up and developing the County Farm Bureau organization. Therefore, when we "dropped in" for the purpose of learning of the farm bureau work in this region, we found in the doctor a man conversant with what has been accomplished up to the

It would seem that the unusual organizing ability of County Agent Wiley is well demonstrated by the development of the Cherry Growers' Association, and the County Farm Bureau organization. The officers and members of the executive committee apparently have been selected with due care and are carrying on the work in a most efficient manner.

THE president is Ernest S. Lautner, of Acme. He is a young man of exceptional ability and comes from one

of the older and most thrifty families in the Grand Traverse region. He is a graduate of the Michigan Agricultural College, and is developing a fine farm near Acme which he has owned for only a comparatively short time. Everything about the farm is indicative of the energy and prosperity of its owner. Several made mention of the fortunate choice of so efficient a leader.

Vice-president E. A. Nickerson, of Kingsley, is one of the leading agriculturists of Mayfield township. He has a well-improved farm of one hundred and sixty acres and a fine house. He is a highly respected citizen and has been supervisor of his township for many years. He follows the practice of general farming in which he has been unusually successful.

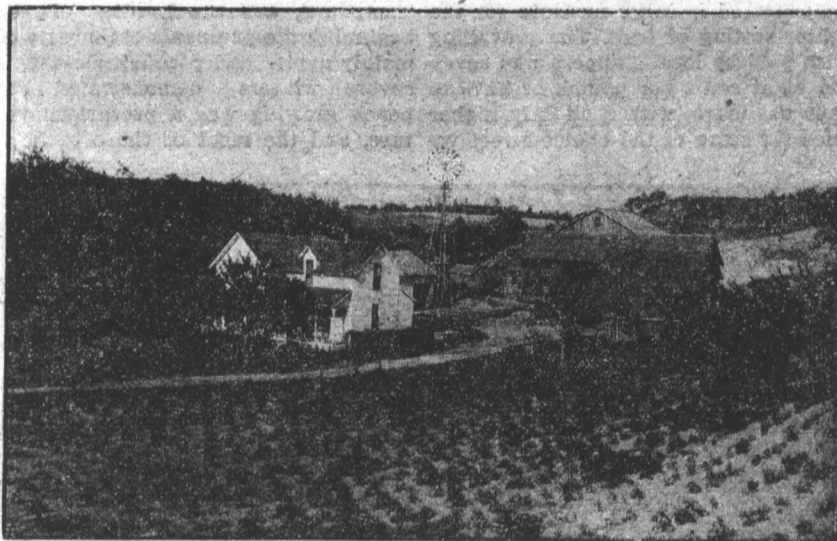
The six members of the executive committee are: Peter Snyder and Eugene Knight, of Kingsley; William

He is a leader in all local community work, and his energy is so boundless that he has been described as the human dynamo.

Eugene T. Knight is a resident of Paradise township, of which he has been supervisor. He has a good farm of one hundred and sixty acres, and leans heavily toward the stock raising industry. He specializes in the production of beef cattle, and does general farming.

William Selkirk, of Williamsburg, has a good farm in one of the most prosperous sections of the county. He is farming along the line of general crop and breeding Poland China swine. He is an excellent farmer, and is highly regarded for his splendid work on the committee.

Joseph Durga lives southwest of Traverse City and is one of the old-time threshers, having operated a threshing outfit for many years. While



Farm Buildings of A. Rusch, Grand Traverse County.

Selkirk, of Williamsburg; Joseph Durga, Traverse City; Charles Blanchard, of Grawn; James Lardie, of Old Mission. The delegates to the State Farm Bureau, who are ex-officio members of the executive committee are: Robert Barney, of Traverse City, and E. G. Rawlings, Summit City.

PETER SNYDER is one of the largest farmers in the county. He operates about three hundred acres of well-improved land in Mayfield township. He is growing ninety-six acres of potatoes this year, and his crop promises to be a large one. Aside from being a large potato grower he raises general crops and live stock. His buildings are large and in fine condition, and he is equipping them with an electric lighting system. His farm equipment includes tractors, truck and all kinds of modern farm machinery.

he has a small farm, his energies have been chiefly devoted to the threshing business.

James Lardie lives on the peninsula near Old Mission. He is a prosperous fruit grower and has a well-located farm and fine home. His large apple orchard is one of the best on the peninsula. He is a man of good judgment, sterling qualities, and capable of representing the fruit interests of the county on the committee.

Charles Blanchard represents one of the best general farming sections of the county. It is regretted that we were prevented from reaching that neighborhood, and therefore are unable to describe Mr. Blanchard's surroundings, activities and qualifications further than to say that sweet clover is one of his main crops. However, it is safe to be assumed that he meas-

ures up to the standard of the committee as a whole, and fully competent to aid in the directing of County Farm Bureau affairs.

Robert Barney, one of the state delegates, has a fine farm and beautiful home in Garfield township. He is a man of excellent character, and one who is intensely interested in all community work of whatever nature. He lives in a very progressive community, and is a leader in a local, interesting, and unique community organization known as the Lone Tree Farmers' Club. He is also prominent in religious work, president of the Northwestern Fair Association and of the Mutual Fire Insurance Company, and one of the directors of the Traverse City State Bank.

The other state delegate, E. G. Rawlings, is the present supervisor of Paradise township. He has two farms, one of one hundred and sixty acres and one of eighty acres, where he practices general farming, in addition to which he specializes in potato growing. He also buys potatoes during the shipping season. On his fine farm he probably has the largest set of buildings in the township. His home has all of the modern conveniences, including a gas lighting system. His farming equipment is of the best, and includes a tractor. He is a director in the bank at Kingsley, and is rated as one of the most prosperous farmers in the county.

One is deeply impressed with the high calibre of the officers and committee members of the Grand Traverse County Farm Bureau. County Agent Wiley's central idea, of thorough organization, with divided responsibilities, placed in the hands of competent men, seems to have been kept well in mind by the farm bureau when choosing its officers and committees. Grand Traverse county's interests are greatly diversified, and while Mr. Wiley has been in the county less than two years, he has apparently not lost sight of any of its several lines of agriculture. His time has been devoted alike to the fruit, potato, live stock and general farming interests; and while there is much yet to be accomplished, a good beginning has been made.

Grand Traverse county is rich. It has wonderful possibilities; it has a wealth of good farming lands, extensive cut-over tracts suitable for grazing purposes, ideal topography, exposure and soil for fruit growing, wonderful scenery, lakes, trout streams, and resort sites, and above all, a highly intelligent, industrious, thrifty, prosperous, and home-loving people. Yes! Grand Traverse county is indeed rich.

Checking Up the Railroads

How \$300 Was Saved on a Single Shipment of Peaches

SINCE the creation of a traffic department by the State Farm Bureau the call for service in solving the farmers' and cooperative organizations' traffic problems has so steadily increased that the time has come to add a special man to the staff of that department to handle the adjustment of claims against railroads and the auditing of freight bills.

The State Farm Bureau has sent out a notice to cooperative shippers that a specialist in handling freight claims and auditing bills will be hired in the near future. The letter stated that no charge is made in the case of auditing bills. When the traffic department finds it necessary to prosecute a case against a railroad and the cooperative association for which this service is rendered will have nothing to pay unless it gets a refund, in which case it

will pay for the actual cost of presenting the case.

How the State Farm Bureau traffic department can help a County Farm Bureau is revealed in an interesting story from Chippewa county. The story, by the way, is an unusual example of cooperative marketing among farmers, as well as a tribute to the efficiency of the traffic department. The Chippewa County Farm Bureau became the medium for buying peaches when the farmers of that county wanted a supply of this fruit at a reasonable price. The farm bureau pooled their orders and made up two carloads and sent the order to the Berrien County Farm Bureau. The fruit growers of Berrien county made a reasonable profit on their product, no doubt, and the Chippewa county farmers got their peaches three dollars a

bushel under the price of peaches in the northern peninsula.

That is half of the story. There was an overcharge on a carload of these peaches that amounted to \$300. When the car arrived at destination the weight was designated by the railroad as 39,600 pounds. The shippers had weighed these peaches and found they weighed fifty pounds per basket. There were four hundred and fifty baskets in the car, which made a total of 22,500 pounds to the car. Ice necessary for preservation amounted to 9,500 pounds thus making a total weight of 32,000 pounds. So there was an overcharge of 7,600 pounds. The matter of this overcharge was turned over to the traffic department of the State Farm Bureau which not only righted this mistake but discovered another. There are two rates to Dafter, Michigan, the

destination of the peaches, one via Mackinaw City of \$1.28½ and one via Chicago of \$1.58½. The Berrien county fruit association did not route this shipment but turned it over to the railroad which, according to the law, should ship on the route of the lowest rate. The railroad did this, but through some mistake the \$1.58½ rate of the Chicago route was charged. In a business as complex as that of railroads such mistakes frequently occur. The traffic department secured for the Chippewa county farmers the difference in the rate. The total savings were about \$300.

The effort to develop cows after they are in the dairy, always falls short of what might have been accomplished had the development been started three years earlier.

Tie That Binds Producers Together

Crop Contracts an Essential Feature of California Cooperation

By Herman Steen

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WHEN a California farmer joins a cooperative marketing association, he signs a contract which requires him to deliver all of his crop to the association. This contract extends over a period of years, and provides that the grower shall pay damages to the association if he sells his crop to any outside dealer.

This binding crop is one of the essential features of every cooperative marketing association of consequence in California. This applies not only to the giant institutions which market the oranges, raisins, and prunes, but also to the little fellows which handle a few carloads of alfalfa or the honey produced by a small district.

The leaders in California cooperation borrowed this idea from Denmark, where it was used by the bacon and butter selling societies. The Danish cooperators regarded it as a fundamental feature, because it kept their rivals from breaking up the societies by temporarily paying higher prices for the products of the members. The California cooperators have found the contract as essential to their success as did the Danes, and have worked out many improvements over the Danish model.

Solves Financial Difficulties.

Originally, the crop agreement was used only as a means of keeping the members of an association in line. It was regarded mostly in the light of safe-guarding an association's supply of products. This, of course, is still the primary purpose of the crop agreement, but it has also been found to be the key which unlocks the financial difficulties of cooperative associations. Briefly stated, the crop agreements give the association title to the product when it is delivered, and this allows the association to borrow money to pay advances to the growers. The association can then market the crop at the most favorable time, which it could not do if the growers were continually demanding money from the sale of their crops, as was the case before this plan of contract and finance was perfected.

Even a casual study of the history of cooperation in California reveals the fact that the crop contract is an absolute essential to success in cooperative marketing. Today there is not a single cooperative association in existence in California which does not employ the crop contract. There may be some small, local organizations which do not require such contracts, but I was unable to find any trace of such, and farm leaders on the Pacific Coast were unable to name any. Of all the many cooperative associations which have failed, only two or three employed the crop contract. Those particular organizations failed, I am told, because their crop contracts were imperfect and could be evaded.

An Essential to Success.

Every leader of cooperative thought and action with whom I have talked recently when studying cooperative enterprises in the far west sought to impress upon me that the crop contract is the second great essential to success in cooperative marketing, the first being organization by commodity. Even the leaders of the two opposing schools of cooperative thought are in harmony on this question. I refer to Aaron Sapiro, of San Francisco, and G. Harold Powell, of Los Angeles, who have differed quite sharply at times in

regard to the fundamental principles of cooperation.

There are different kinds of contracts in use by the cooperative organizations. The California Almond Growers' Exchange, for example, had no contract as such, but every member is required to sign the by-laws of the association, which provide that members must sell all their almonds through the organization. This, of course, has the same effect as a separate contract specifically requiring the same thing.

Different Kinds of Contracts.

The egg association likewise have simple contracts requiring the delivery of all eggs produced and stating the damages that may be collected by the association in case of violation of contract by the producer. The California Fruit Growers' Exchange (the citrus association) has three contracts, one between the central exchange and the district exchanges, one between the district exchanges and the local associations, and one between the local associations and the producers of citrus fruit. Each of these contracts specifically sets forth the things that each party is required to do.

The contract of the raisin growers, on the other hand, guarantees a minimum price to the growers of raisins. It provides also that in case the land is sold the new owner must fulfill the provisions of the contract. This latter provision has been the source of considerable trouble, and many good lawyers say that it would not be sustained in court, though it has never been tested.

What is probably the most complete contract between association and grower is the new prune and apricot crop agreement, which will soon go into effect between the California Prune and Apricot Growers' Inc., and its eight thousand members. It was drawn by Aaron Sapiro, attorney for the prune and apricot growers, and covers more contingencies than any other contract used in California. Nothing is left to verbal understanding and agreement—everything is put down in black and white, so that there is no possibility of misunderstanding. It is regarded as the most perfect contract of the sort ever devised.

The prune and apricot contract contains close to three thousand words and the membership agreement close to five thousand more, so space forbids printing it in full. The salient feature, however, may be reviewed as follows:

1. The grower agrees to help carry out the express aims of the association, which are cooperative marketing, elimination of speculation and waste, and the stabilization of prune and apricot markets in the interest of growers and public alike.

2. The association agrees to buy and the grower agrees to sell all of the prunes and apricots produced by the grower during 1922, 1923, 1924, 1925, and at the option of the association, during 1926, 1927 and 1928. (The present contract includes the crop of 1921).

3. The grower agrees that the crop has not been contracted to anybody else.

4. The grower agrees to deliver all fruit as early as possible, but in no case later than September 15 for apricots and November 10 for prunes, and to abide by all rules of the association in regard to grading, packing, delivery, etc.

5. The association agrees to sell all fruit delivered to it, and to pay the grower the average price received for the grade he produced, minus the cost of operating the association. The grower agrees to accept this amount as payment in full.

6. The association agrees to pay a substantial advance to the grower at the time the crop is delivered, and to distribute proceeds as rapidly as possible through the year, but final payment shall be made not later than July 1 for apricots and October 1 for prunes. (These dates refer to the year following delivery).

7. The association is allowed to sell the prunes and apricots when and where it deems fit, under such conditions as will serve the grower and the public.

8. The association's subsidiary (the warehousing corporation), capital stock, is to be retired by profits made in mechanical handling of the prunes.

9. The grower is allowed to sell any or all of his fruit to dealers or shippers of fruit, provided he does not sell to

any speculator who might interfere with the sale of the dried fruit handled by the association.

10. If a grower transfers his orchard of fruit to a relative, he shall be liable for damages in case the fruit is sold to an outside dealer.

11. The association recognizes crop mortgages if it is notified in advance concerning them.

12. It is agreed that all contracts between the association and growers shall be substantially alike.

13. If a grower violates his contract by selling dried fruit to outsiders, he agrees to pay to the association two cents per pound damages on prunes or four cents per pound damages on apricots, plus expense of collection. This is what puts teeth into the contract, and makes a man think twice before he tries to break it.

Under the provisions of the damage clause, practically every cooperative association in California has brought suit against growers for violation of contract. In every single case, so far as I was able to learn, the association has won and the growers were ordered by the courts to fulfill their contracts. The association does not usually sue for damages as much as it does for fulfillment of contract. One such case has recently been appealed to the supreme court of California, which has not yet announced a decision.

Importance of the Contract.

Some of the important reasons why the binding contract is the cornerstone of cooperation are thus summarized by Attorney Sapiro.

1. It insures the association a definite acreage over a period of years, and from this the actual volume of business can be estimated quite closely. This stabilizes the association and permits it to operate to better advantage than would be possible otherwise.

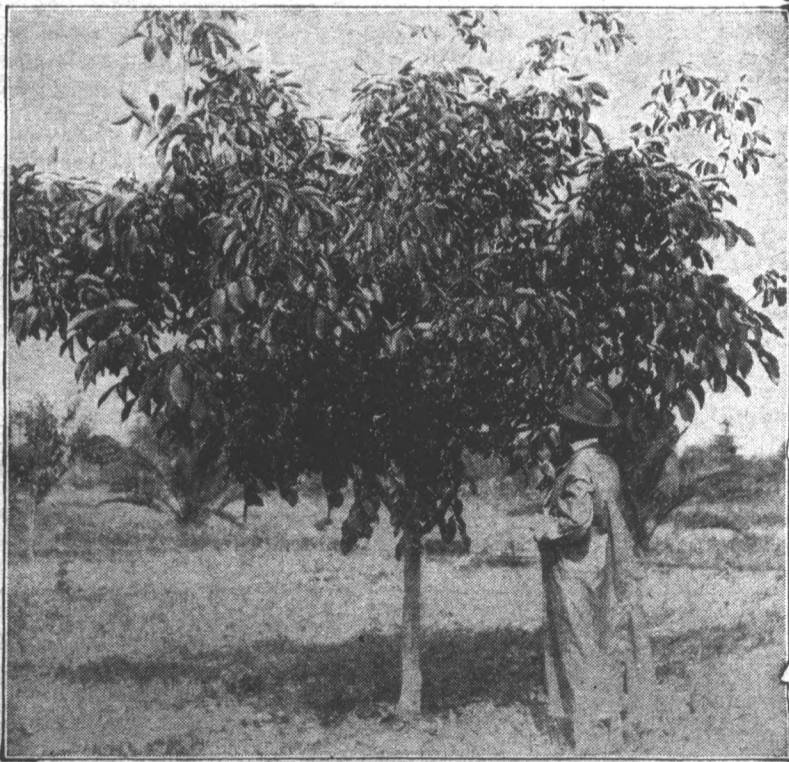
2. It puts the association in a strategic position on the market. It gives the farmer a representative on the market, which he never had had heretofore. A commission man is often worse than no representative at all, and as often as not is secretly representing the man who buys from the farmer.

3. It eliminates competition in buying, and the association's business cannot be broken by speculators who are willing to pay high prices and lose money temporarily in order to accomplish that purpose.

4. It allows the association to put all of its efforts on efficient salesmanship, while the producer puts his efforts on efficient production. The man who is tempted by a cent a pound cannot seriously injure an association.

5. It provides a means of securing credit, so that crops may be moved and first payments made before they are actually delivered. The fact that the association secures title to the crops when delivered allows it to borrow money and make first payments at that time. The contract has thus solved the financial question in cooperation to a large extent, for bankers lend money readily on the basis of the contracts.

Practically all of the cooperative associations in California are increasing the percentage of crop controlled. The success of the associations in securing renewal of these ironclad contracts is assurance that the growers recognize the justice of the crop contract and the necessity for its use.



The Contract Provides that the Grower Shall Pay Damages if he Sells His Crop to an Outside Buyer.

Committee of Seventeen Meets

A Great Variety of Views on a National Marketing Scheme Were Given at the Chicago Meeting

THE "Committee of Seventeen" appointed from various farm organizations to develop a plan for the cooperative marketing of the nation's grain held a three-day session at Chicago last week. The purpose of the meeting was to get before the committee the opinions of various men having knowledge of present methods of marketing grain and of men experienced in the cooperative marketing of farm products.

Evidently the committee was imbued, as a result of the hearing, with a feeling of profound respect for the size of the task which has been imposed upon it, as it voted not to formulate any plan until it was absolutely sure that it had examined all the evidence and that a fund of \$50,000 would be raised to employ economists and statisticians to make a thorough study of the question. The next meeting of the committee will be held on December 13, at which time it will hear the reports of its investigators, and also of the various sub-committees appointed some time ago. Two representatives of the Cotton Growers' Association will be asked to present results of their experience at that meeting. The committee hopes then to be able to formulate the basic principles along the lines of which its final plan will be drawn. A legislative committee was also appointed to examine into the cooperative laws of the various states in the Union and to take the necessary steps to obtain favorable laws in all the states of the Union. The law under which cooperative organizations operate in New York state was considered exemplary.

Thinks Farmers will Stick Only when it Becomes Necessary.

Professor Nourse, of Iowa State College, presented the report of a sub-committee which made a study of the California marketing associations at first hand. The conclusions of this committee were that no very strong, permanent or extensive cooperative marketing organization is likely to be built up unless economic necessity forces a great number of the farmers into it; that no considerable result would be achieved unless producers of a given commodity over some area large enough to make a suitable economic unit consolidate their common interests to obtain the most efficient distribution of their product; that to provide the proper basis for financing and organizing the distributive work of the association its members must enter into a contract to deliver their product to it over a reasonable period of time, even though these may not be fully enforceable at law; that settlement on a pooling basis is necessary as a means of averaging the results of the joint action and of distributing the benefits of the organization equally to all its members. The committee also found that the California cooperative associations do not "fix prices." They are simply efficient agencies to obtain the best prices that the consuming market affords. Several of the cooperative associations on the Pacific Coast are now compelled to accept prices below cost of production, which indicates that they have not secured through their organization any immunity from fundamental economic law; but still were able to secure for their members more favorable prices than they could otherwise obtain. The committee commended the California cooperatives upon their plan of operating their selling concern as a mutual association for service on a cost basis, and the two-

fold plan of a non-stock distributing company with a stock corporation for warehousing. The committee did not believe that much could be accomplished by aggressive salesmanship and advertising as a means of obtaining a higher price for the grains.

Defends Boards of Trade.

L. F. Gates stated that the benefits of boards of trade, which he defined simply as organized markets, included the establishment of standard grades, honest weights, a means of financing the moving of the crops, of reducing the cost of distribution through competition and through the development of exchange trading or dealing in futures. Discussing the benefits of dealing in futures, Mr. Gates granted that this feature has not worked satisfactorily in the wheat market since the resumption of trading in that cereal on July 15. The trade has been comparatively narrow and a large volume of hedging orders, either for purchase or for sale, met no heavy cushion of speculative operations to act as a balance wheel, and the result was a decidedly fluctuating market. It was unfortunate that the exchanges were reopened shortly before the change in the public attitude, which has resulted in price declines in many commodities, was noticeable. His contention was that prices do not fluctuate because of speculation, but that speculation is attracted by a fluctuating market and their influence is to stabilize values relatively. Also the exchange trading in futures provides an insurance feature for handlers of grain by means of which they are able to shift the risk of ownership and protect a merchandising profit so that the trade tolls between producer and consumer are smaller than they otherwise would be. Mr. Gates stated that he had upon many occasions calculated the difference between the price of corn at the loading point in Iowa and the price to the retailers in New England and excluding freight, at least ninety per cent went to the producer and never more than ten per cent to the handler; that in 1914 investigators found a difference of only ten per cent between Kansas and Liverpool, again disregarding freight. This margin was only made possible through the opportunity to shift ownerships by means of the hedging feature which exchange trading provides. He believes that the chief critics of the exchanges are the individuals, including grain handlers, who have failed to use its facilities, but have speculated by retaining ownership and have suffered losses through declines in market values. Mr. Gates expressed uncertainty as to the willingness of the members of the Chicago Board of Trade to admit a farmers' cooperative concern to its membership because their plan of pro-rating dividends according to patronage would be construed as a violation of the exchange rules governing rebates.

Mr. Thompson, of the federal trade commission, stated that the report of the commission, based upon its investigation of the grain trade, would be available for the use of the committee

before long, but that its conclusions and recommendations would be withheld until the commission had reported its findings to congress, by which it had been called upon to make its investigation. In its recent examination of the California Associated Raisin Growers it had stressed in its findings the maintenance of a democratic spirit in a cooperative company, which means limitation of membership to growers only and each member to have one vote regardless of acreage owned, and that to avoid the limitations and penalties of the Sherman and Clayton acts the organization must be purely cooperative, based on mutual help without capital stock and not formed for profit. Mr. Thompson stated that the monopolistic tendency in the human soul must be recognized in determining the amount of power which would be placed in the hands of the cooperative organization. He also stated that his study of cooperative organizations lead him to believe that growers invariably failed to recognize the danger of over-production as a result of a stimulating price until the over-production actually arrived.

Canadian Plan Described.

Mr. E. E. Bayne, in discussing the work of the Canadian grain growers, stated that they had treated the problem at first as purely one of business and economics, but at present they are giving attention to its political aspect as well. In marketing their 1919 crop of wheat Canadian growers virtually had a pooling system under which \$2.15 per bushel was paid to the grower at the time of delivery of his grain. He was also given a participation certificate which would have value in case the market price justified a larger payment, and upon these thirty cents per bushel was paid some time ago and another eighteen cents has recently been made available. The Canadian wheat market was reopened for exchange trading in July, since which time the price has declined sharply and the farmers are dissatisfied with the open market, preferring instead the pooling system. The United Grain Growers maintain its own central market organization and has recently entered into the export business. The usual handling charge in exporting grain, aside from freight, has been about six or seven cents per bushel, but the actual cost to the United Grain Growers has been one and a quarter cents, the remainder accruing as profit to the producer members. According to Mr. Bayne the Canadian growers entertain no idea of holding to obtain the cost of production, but to obtain the supply and demand the price without diminution by heavy handling charges. His organization finds it necessary to use the hedging facilities of grain exchanges.

Mr. Barnes talked briefly of the work of the United States Grain Corporation, but at considerable length in justification of the present system of marketing grain. Because of his unique position Mr. Barnes was able to discuss in a peculiarly enlightening way

the influences which affect world prices, the present obstructions to the normal operation of the laws of supply and demand, and the importance of the service to the farmer which the exchanges have been rendering in the past.

How Prices Are Determined.

Mr. Barnes pointed out that in surplus producing countries the price upon the crop was determined primarily by the price obtained for the surplus less the cost of reaching the export market, and that this year all five of our leading grain crops are on a surplus basis. This surplus goes mostly to Europe where prices are influenced by the extremely unsettled political and economic conditions. Fluctuations in prices as they take place on boards of trade are due to variations in supply or demand, neither of which is definitely known, and individual opinions of merchants upon these factors are constantly influenced by a great variety of sources; but that through the opinions of many merchants as thus expressed a truer supply and demand price is obtained than through any other means thus far devised. The recent decline of the wheat market may be ascribed to the decline in sterling exchange from \$3.90 to \$3.40 which increased sharply the cost of our wheat delivered abroad and to the unjustifiable policy of the leading foreign buyer which made heavy purchases in April and May at a time when wheat was comparatively scarce upon our markets, thus causing the price to advance above its true level and having acquired considerable stocks by this means it has remained entirely out of the American market since July 29. Mr. Barnes recommended the development of the railroads through increased car supply and the development of the waterways, particularly the Great Lakes-St. Lawrence project as a means of reducing the transportation cost which he believed would increase the price to the grower by at least five cents per bushel. He recommended that the growers through organization should endeavor to obtain exact information upon factors likely to determine the price of their crops, which would be distributed to the grower through an agency in which he had confidence, and which he might then use as a basis for his individual judgment in determining the time of marketing his grain. Also that growers should seek a better understanding of the operations of the grain exchanges and seek to develop them and to eliminate their defects and abuses. As a means of stabilizing prices his suggestion was the development of the feature of future trading and the making of contracts for delivery so liberal as to time, place and grade that variations in the volume of hedging transactions would not tend to cause sharp fluctuations and that no individual or pool of individuals would dare seek to manipulate. In response to questions he expressed the belief that cooperation was highly desirable at the local elevators which constituted a natural monopoly at most points but that in the field of centralized marketing it would be possible only to obtain the regular merchandising profit along with the risk of capital investment which grain handlers must undergo, and that the profits involved in the present trade tolls are much smaller than growers believe them to be. When asked what could be done to stimulate sales abroad, Mr. Barnes responded

(Continued on page 619).





Using the tractor for feed cutting
GOODYEAR KLINGTITE FARM BELTS
Need no breaking in

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Feed Grinding Power—and Goodyear Belts

Fletcher Gollmer is well known in the neighborhood of Warren, Illinois, for his successful methods of raising and fattening hogs and cattle on his 110-acre farm. He has farmed all his life, and as a specialist on diversified stock for the last seven years has given close attention to the value of good, ground feed.

He grinds a lot of corn about this time every year, just as other stock farmers do. Twenty cows and sixty hogs, fattening in a batch for market, require the grinding of fifty to seventy-five bushels of corn at a time, and justify investment in the best of grinding equipment. In this work, Mr. Gollmer puts full reliance on the transmission ability of the belt he uses between tractor and grinder.

His Goodyear Klingtite Belt demonstrates its inbuilt strength by the delivery of an even, full flow of power on the grinder drive, a duty recognized generally by experienced farmers as perhaps the severest test to which a farm belt is put. Its smoothly powerful action produces uniformly ground feed and at the same time protects engine and grinder from undue strain.

He gets the highest efficiency from his equipment, Mr. Gollmer says, when he anchors the tractor more securely than is the general practice, dropping the front wheels slightly to insure ample belt clearance over the front axle. His 50-foot, 6-inch, 4-ply Goodyear Klingtite Belt is hung crossed and without idler, from a 9-inch

paper drive pulley with 7-inch face to a 12-inch driven steel pulley with 6-inch face.

This belt needs no breaking in. From the first, it holds the pulleys in a friction-surface grip that prevents slippage, insures uninterrupted transmission of power, and enables the belt to be run loosely, with consequent advantage to the engine bearings. It requires no belt dressing.

Proof against cold and damp, Goodyear Klingtite Belts do not shrink or stretch. Therefore, there is no time lost in engine re-setting. Unstitched and of bonded-ply construction, they do not separate at the plies, but wear evenly and last much longer than other belts do. In every respect of operation and maintenance, they are economical, efficient and trouble free. Farmers who know the Goodyear Klingtite Belt say it is the best help on the farm.

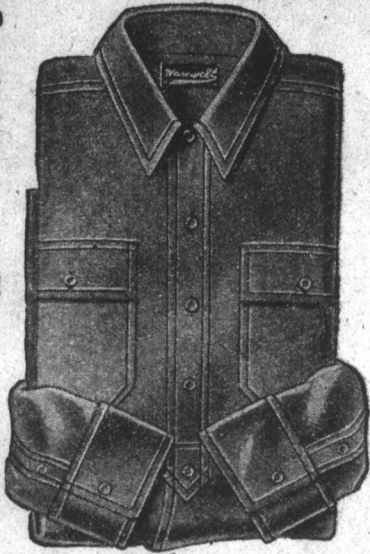
We build these belts specifically for farm duty. They are carefully designed to the service required of them, and specially constructed to protect our good name. They come in endless types for threshing and in suitable lengths for all other purposes. Their important function in modern farm power operation is discussed interestingly in the Goodyear Farm Encyclopedia. Write for a copy to The Goodyear Tire & Rubber Company, Akron, Ohio, or Los Angeles, California.

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Warewell Company Dept. FS310 Philadelphia, Pa.

Our Washington Letter

By E. E. Reynolds

THE farmers' conference on credits at the National Board of Farm Organization's headquarters in Washington, after deliberating and passing a set of resolutions, adjourned and the delegates returned to their homes evidently convinced that if a solution of their problems is reached they must work it out themselves, regardless of government action. As one of their spokesmen said, "they will attempt to put into effect a gigantic holding movement on wheat and cotton." President Charles S. Barrett, of the National Farmers' Union, declared that "the time has now come for action. Since government has failed us, we now ask that government officials stop talking price decline and give us a chance to help ourselves. Our union officials interpret the resolutions you have just passed as authorizing a general holding movement on wheat and cotton, and possibly other products; certainly on wheat and cotton, for that only will get us anywhere."

Whether this holding movement is the solution of the farmer's problem of price decline can best be told next year after the plan has been given a tryout. Many regard it as being more practicable than begging the government to do something that the officials in power have said over and over again they will not put into operation.

The fifteen members of the "Next Step" committee who drafted the resolutions were not all of one mind. Representatives of the radical farmers' organizations were not satisfied because the committee turned down their move in favor of the Plum plan of government operation of railroads and the alliance of the farmers with union labor organizations. The Washington representative of the National Grange, Dr. T. C. Atkeson, did not sign the committee's report, and has given his reasons in the following statement:

"I told the committee that if this report represented their state of mind to go ahead and present it. I know how hard hit thousands, perhaps millions of farmers have been by the decline in corn and cotton and cattle and other products in lesser measure. But this statement of the committee is based, I am sure, on an incorrect diagnosis of the causes of the illness which at present afflicts us. Incorrect diagnosis and uneconomic remedies always do more harm than good. I am not willing to subscribe to a remedy based on what I believe to be incorrect diagnosis. The curtailment of credits is, in my opinion, only a part of a result, and not the cause, and does not lie near the cause, of what is taking place. The price readjustment is an inevitable result of conditions due to the war. I went through a similar situation following the Civil War. What we should do is to get at fundamentals, with a more thorough knowledge of conditions and of past experience, and then seek to prevent, if humanly possible, the long period of depression, which post-Civil War experience and history indicates is to be feared.

"This cannot be accomplished, in my judgment, by mere creation of credits, especially if the chief use of these credits is to hold back products from consumption while other products are being raised. It can be accomplished, if at all, by enlarging consumption. Nothing which has been officially suggested in either the earlier conference or in this conference will have any affect even if carried out in good faith, on increasing consumption, except the one suggestion that foreign markets for American products should be

sought out by all such government agencies as are available."

The recommendations of the committee called for revision of the banking laws, the revival of the war finance corporation, and for government aid in reopening foreign markets, and financing the same.

The executive committee of the American Farm Bureau Federation is making a study of the McFadden rural personal credits bill. Professor Ivan Wright and Dean Eugene Davenport, of the Illinois University, are also working on the same bill, in cooperation with the rural credits committee of the National Society of Record Associations. It is assured that some sort of personal rural credits legislation will come before congress early this winter.

THE department of agriculture and interior department evidently have not heard of the slump in prices or lack of confidence in the belief that lower prices for farm products will be effective in reducing the cost of living in the cities. They are asking for large increases in salaries for workers in the departments. Secretary of Agriculture Meredith is asking for upwards of \$10,000,000 more than last year's appropriation for the department of agriculture. Secretary of the Interior John Barton Payne is making an insistent demand for pay increases in his department aggregating millions of dollars. Officials in the department now receiving \$5,000 would receive \$7,500, those receiving \$3,500 would receive \$5,000, and so on through the long list of employees. The entire estimates for the interior department, as sent by Secretary Payne to the treasury department, total \$226,000,000, an increase of \$21,000,000 over last year's estimates.

The war department is planning for an army of two million men. According to the plans of Secretary Baker and the general staff, the personnel of the ranks of this huge army is to be provided for by the regular army of 300,000 officers and men; the national guard approximating 425,000 men, and organized reserves of indefinite strength. The first 2,000,000 men are to be organized into six field armies with the proper number of corps, divisions and auxiliary troops. Reserve equipment and supplies will be provided and an organization for mobilizing the industries of the country. This scheme would give employment to a vast number of training officers and necessitate the maintenance of an immense military establishment.

All signs indicate that there is already in action all along the line a systematic, well organized movement to demand of congress larger appropriations, regardless of the fact that if the increases are granted it will mean increased taxation.

A question has come up in Michigan as to whether the provisions of the Capper-Volstead farmers' collective bargaining bill will apply equally to the local associations of farmers and the central agency, or overhead organization. The matter has been referred to several authorities by the Washington office of the American Farm Bureau Federation. An assistant in the attorney-general's office said the proposed measure would give any benefits to the central association that were conferred upon the local association. Solicitor Williams of the department of agriculture, gave a negative answer. When the matter was referred to Clifford Thorne, of Chicago, the federal

attorney, he advised that the bill be so amended as to remove any doubt as to the intentions and the extent of its application.

THE national committee for government economy has prepared a draft for a reorganization of the executive departments of the federal government. Among the proposed changes is a new department of education and health, which will include the present bureaus of education, Indian affairs, pensions, public health service, and several other similar activities.

That part of this "government economy" reconstruction program which is of special interest to farmers is the proposed removal of the weather bureau and chemistry bureau from the department of agriculture to the department of commerce, and the bureau of public roads to the office of public works.

There are some good reasons why these changes might be desirable. The weather bureau, especially, is probably of greater service to commerce than to agriculture, and the work of road building might properly be transferred to public works. The vast appropriations made for these bureaus are now included in the agricultural appropriations, giving the impression that the government is spending more money for the special benefit of the farmers than it really is by many millions of dollars.

Sir Auckland Geddes, the British ambassador, has agreed to deliver an address at the annual convention of the American Farm Bureau Federation in Indianapolis, during the week of December 6. His subject will cover some phase of international agriculture.

LIABILITY ON NOTE.

A sells B a piano, for which the latter gives three notes. B paid each note before due, taking a receipt, and A sent the notes later except the last, but gave B a receipt in full for piano. A sold C the three notes unbeknown to B until this last note was six months past due, A acting as C's collector. Can C collect again for the last note? A didn't turn over the money for this note to C. A has now disappeared. What can B do?—J. B.

The maker of a negotiable note assigned in the regular course of trade before maturity, is liable to the indorsee regardless of any defences he may have against the person to whom it was payable. If A was the agent of C to collect the note, and had it in his possession for that purpose, payment to A is payment to C; but the fact that he had collected prior notes was no justification for payment of a later one to him if he did not have it to collect.—J. R. R.

KEEPING BEANS IN THE POD.

Can you inform me as to the advisability of letting navy beans stand in the pods without threshing until next fall? It seems to me that this is the best way to keep them, then if the price is still lower next fall, let them stand another year. Or would it be best to thresh them and treat for weevil?

Beans which have been properly cured might be allowed to stand in pods indefinitely without risk of much damage, were it not for the prevalence of the bean weevil. The great likelihood of loss from weevil injury makes it advisable to thresh beans in the fall or early winter and treat them for weevil to prevent loss. Beans can be held in storage in much better condition when threshed than when kept in the pods.—J. F. Cox, Professor of Farm Crops.



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ORGANIZATION OF VEGETABLE CANNING CROP GROWERS.

AS was noted in this paper a few weeks ago a movement was started at Columbus, Ohio, in August to try and organize a national vegetable canning crop association. A second meeting was held at Columbus at which ten states where canning crops are grown extensively were represented. At that conference a resolution was passed asking President Howard, of the American Farm Bureau Federation, to appoint a committee consisting of one man from each state interested to work out some more equitable plan of marketing the crops grown by the vegetable canning crop growers.

In Michigan the pea growers are the ones who will in all probability be the most likely to be interested in this movement. It is a well known fact that one of the arguments which the canners always make against higher prices for peas in Michigan is the fact that the canners in Wisconsin do not pay as much as the canners in Michigan. This same argument is used by the tomato growers of some of the eastern states and they make their comparison with the prices paid in Indiana and Ohio. The movement to organize the canning crop growers has as one of its objects the working out of some plan which will more nearly equalize the prices paid for canning crops in different states. If it is true as some claim, that tomatoes, for example, can be grown much more cheaply in Indiana than in Delaware and New Jersey, it would seem that there should be a difference in the prices paid to the growers in the different states.

In order that we may have more accurate information to base our calculations upon, quite extensive cost accounting records have been kept in the different states interested. In Michigan during the past year a number of records have been kept of the cost of producing peas for canning purposes. If the Wisconsin records show that the growers in that state can produce peas more cheaply than the Michigan growers, we cannot expect to compete with them on an equal price basis unless other factors such as transportation of canned goods should enter in to offset other differences in cost.

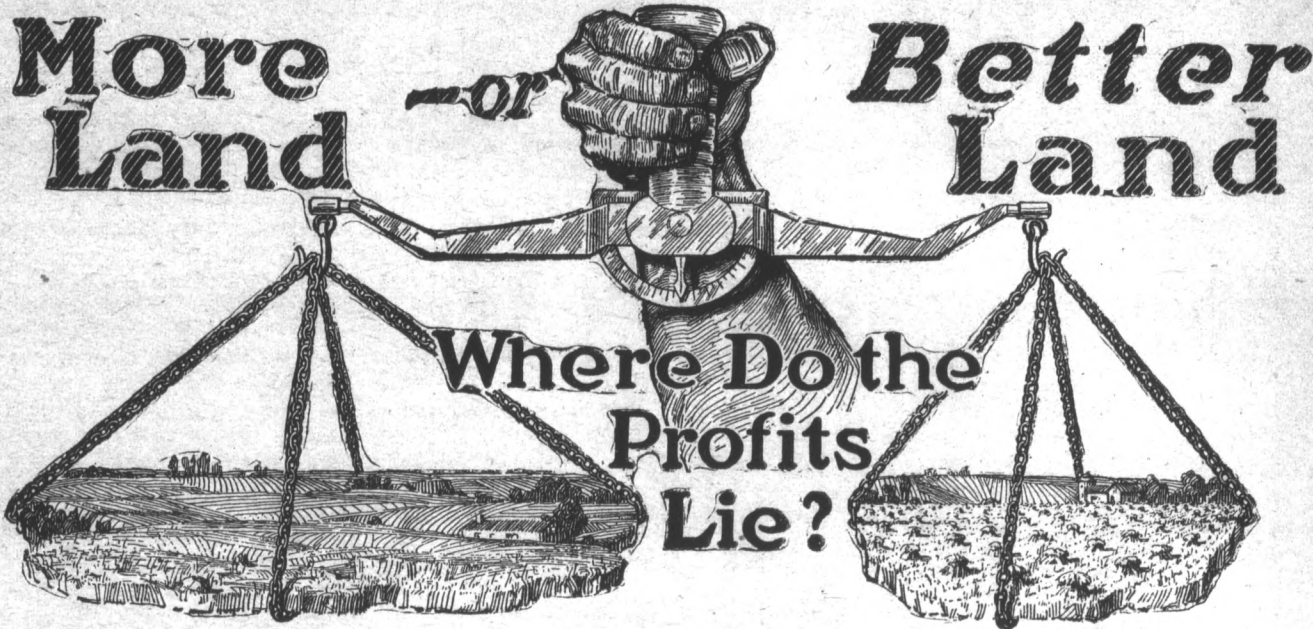
The writer has been made a representative of the American Farm Bureau Federation for canning crops and vegetable interests until such a time as a man can be employed at full time on this work. We have endeavored to get in touch with the pea growers in different sections of the state through the County Farm Bureau and to ascertain the desires of the pea growers as to a state organization which should come before the Michigan growers can take part in the national organization.

In New York state the growers are organized in such a manner that each grower signs a crop contract with a penalty affixed. This form of contract assures united effort. The Michigan State Farm Bureau has expressed an interest in this movement and if the growers show sufficient interest, the farm bureau will probably assist in working out some plan of state organization. We would be pleased to hear from individuals or groups of men as to their desires along this line.

C. W. WAID,
Representative American Farm Bureau Federation.

Arley Blud says he likes lima beans better than peas as they don't roll off his knife so easy. He thinks napkins are a nuisance as they are always catching things that might just as well go through to the floor for the pup.

William Elkins says the new dentist down town ought to like to go to church because its like pulling teeth to get some folks to go to church like they ought to.



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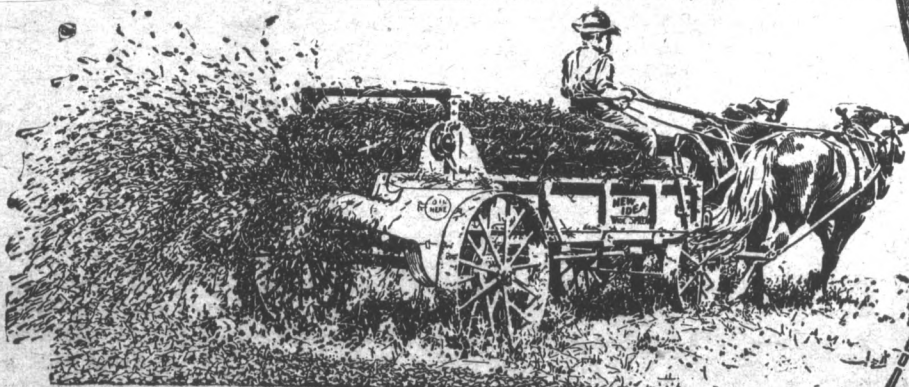
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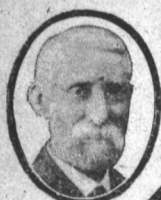
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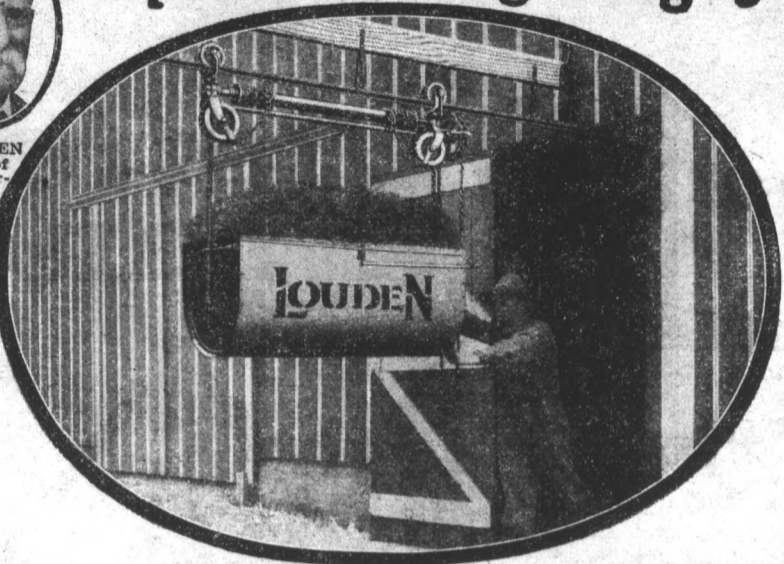
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Activities of Cloverland

By L. A. Chase

WINTER dropped down on Cloverland very suddenly, October 27. The week before we had been sweltering in summer temperatures. Nature seemed a bit befuddled by this unwonted delay in the termination of the growing season. From the copper country came reports of second crops of raspberries and fruit trees in blossom for the second time this season. Violets were blooming in Chippewa, while robins have been singing with all the fervor of the springtime performances. In Marquette it has been officially determined that there was no killing frost from May 3 to October 29—a period of one hundred and seven-nine days—a longer growing season than the most southerly counties of the state normally enjoy. Without waiting for a frost, snow descended on October 27. It is going away again and farmers who were late in getting out their potatoes will still have time to lift them. Even if they had been snowed in for the winter, that would not have been serious, since our snows come before the soil freezes, and remains at an increasing depth all winter. While this snow may have its disadvantages, it effectually protects the surface of the ground against frost, and potatoes left out all winter come out in prime condition in the spring. How deep this snow cover may become is seen when it is stated that Houghton enjoyed a snow-fall last winter of two hundred and eight inches, as the gauge recorded it. This is exceptionally heavy for the northern peninsula, but it indicates what can be accomplished in this regard in upper Michigan. Our normal precipitation is not more than yours, but we keep all we get.



Grown in U. P.

and the season's results in terms of fruit seem to justify the position of the orchard.

Fence Posts.

When a representative of the State Farm Bureau recently passed through the peninsula, he observed large quantities of fence posts by the railroad tracks awaiting shipment. It was suggested to him that here was another line that could be well handled by the farm bureau's marketing department. The upper peninsula has a large output of this most necessary adjunct to farming. One of the largest dealers in posts and poles in the district estimates its product to amount to some three million fence posts per year, most of which are shipped outside the state. If our idiotic practice of burning up our second-growth—yes, and virgin stuff, too, were discontinued lower state farmers would be able to secure home-grown fence posts at more favorable prices than now prevail.

G. W. Putnam, of the Chatham Experiment Station, is seeking to interest Cloverland farmers in the coming International Live Stock Show at Chicago in December. He wants them particularly to enter exhibits of barley, oats, grass seed and hay. It is reported that an upper peninsula boy, Carl Johnson, of Gogebic county, who was one of the winning team in the stock judging contest at the State Fair at Detroit, will enter for honors at this exhibition.

Will Make a Fish Survey.

Sault Ste. Marie is expecting the establishment of a fish hatchery through the joint action of the Ontario and Michigan governments in cooperation with the United States Bureau of Fisheries. It is presumed that the plant will be in mid-stream of the St. Mary's river where fresh, running water can be secured. The present state hatchery there is said to be unsuitable through its use of chlorinated water from the city pumping station. The Upper Peninsula Development Bureau also plans a fish survey of the upper peninsula in cooperation with Dr. John Lowe, of the Department of Biology of the Northern State Normal School, who is a fish expert formerly associated with the Wisconsin Conservation Commission. In this connection it is purposed to make analyses of the river waters of the district to ascertain their adaptation for various species of fish. This work should yield very important and interesting results.

The fall season of commercial fishing on the upper Great Lakes is now under way. Menominee claims the largest fish salting establishment in the world, to which fish are shipped from various points on Lake Superior and Lake Michigan for salting and refrigeration, and reshipment to distant points throughout the country.

Announcement is made that a packing company will open a remodeled and greatly enlarged plant in Iron county next month. It represents an investment of \$75,000, it is stated, and will be equipped to handle cattle, hogs, sheep and chickens, and produce ham and sausage. Local capital is invested in the establishment.

The Gogebic County Cow-testing Association now numbers thirty-three members, says the Ironwood Daily Globe. Its operations have resulted in the recent acquisition of additional pure-bred stock and the elimination of poor stock by members. Two new directors were recently chosen. Henry (Continued on page 602).

Horticultural Work.

What this season has meant to fruit-growers in this end of the state, will be seen at the Michigan Agricultural College by those who attend the meetings of "Farmers' Week," next February. Robert Blemhuber, upper peninsula member of the board of directors of the Michigan State Farm Bureau, has collected specimens of apples, peaches, pears, plums and grapes that were grown in and adjacent to Marquette, this season, and has shipped the collection to C. P. Halligan, of the horticultural department of the college. It will be put in storage for the farmers' meeting. It will be an eye-opener, and I venture to predict that no little astonishment will be expressed at the exhibit. The "Blemhuber" apple, named in honor of Mr. Blemhuber's father, producer of the variety, is a magnificent specimen of the fruit, weighing up to sixteen ounces in some instances. Other varieties of apples include the Seek-no-further, the Shawassee Beauty, the Cloverland Beauty, the Greasy Pippin, the Ben Davis and other standard varieties. It is hoped that the college will see its way to include fruit culture in the work of the upper peninsula branch of the experiment station at Chatham, although Chatham may not itself be the best location for this department of its work. A location nearer to Lake Superior, such as that now held by the northern orchards, has been suggested as preferable. These northern orchards, containing 2,700 apple trees, 1,000 cherry trees, some two hundred and twenty-five plums and fifty pears, have a remarkably fine situation in the hill country a few miles out from Marquette, where air drainage and exposure are most favorable, the location having been selected by L. M. Geismar, now county agent of Houghton county;

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FEEDING BEET TOPS TO SHEEP.

FARMERS of the sugar beet growing districts have found beet tops to be one of the most profitable feeds for sheep obtainable. They usually buy a lot of feeders in the fall, feed them for a period of four or five months, and sell early, without pasturing at all in the spring.

James Huntley has followed this plan with success for six seasons. He usually buys from five hundred and fifty to seven hundred and fifty lambs in the fall, and feeds them for about four months. The beet tops are used first. An acre of tops, he advises, is equal to one and a half tons of hay. After the beet tops are gone, he feeds alfalfa hay and a little straw, but never any grain. A considerable amount of hay has to be bought from neighboring farmers.

The special equipment required for feeding as Mr. Huntley does it consists of twenty-one feed racks, each sixteen feet long, and an inclosure forty-eight feet square made of tight ship-lap panels sixteen feet long and four and a half feet high. These panels are wired to posts which are set in the ground. The sheep are confined in this fold at night and when not feeding.

The feed racks are set so that a wagon may be driven between them. They are filled each day, in the morning, before the sheep are released from the fold. About twice a week a load of straw is placed in the fold. This serves mainly as bedding and goes into manure. Water is pumped from a well with a small gas engine. After the feeding season is over the feed racks are knocked down by removing the ends; the panels of the fold are unwired from the posts and all material is piled out of the way until needed the following fall. The ground occupied by sheep is planted to beets.

Last season five hundred and fifty-eight Rambouillet lambs averaging about fifty-one pounds each, and altogether weighing 28,640 pounds, were bought on the ninth of November at fifteen cents per pound, or a total of \$4,296. Ten lambs died. After feeding one hundred and twenty-seven days, five hundred and forty eight lambs, averaging about seventy pounds, and altogether weighing 38,150 pounds, were sold on March 16 for seventeen cents, or \$6,485, which was \$2,189 increase over the purchase price.

After deduction of cost of hay and averaging value of the tops of beets, this farmer had \$756 clear gain in return for his labor in handling the lambs for the four-month period when otherwise he would have had practically nothing to do. The manure, cost in present commercial fertilizer values, would have more than offset this, and would have been of doubtful value, at that. So sheep and beets work well together in instances like this. It is certain that the millions of tons of beet tops that have been permitted to decay in heaps in beet-growing districts, like Michigan, Colorado, Montana, Utah, Idaho and California, can well be converted into mutton and wool profits.—E. W. G.



Good Sires Mean More Profits.



Off Summer Pastures

Your animals are coming off summer pastures and going on dry feed. It's a big change. Out in the succulent pastures, Nature supplies the tonics and laxatives to keep animals in condition.

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- It keeps feeding cattle right up on their appetite.*
- It keeps hogs healthy, thrifty, free from worms.*
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Always buy Dr. Hess Stock Tonic according to the size of your herd. Tell your dealer how many animals you have. He has a package to suit. Good results guaranteed.

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Direct Gear Drives Saw—no chains to tighten; no keys; no set screws. 4-cycle Frost Proof Engine with counter-balanced crank shaft. Pulls over 4 H.P. Oscillating Magneto Ignition and Automatic Governor with Speed Regulator. Special clutch, lever controlled, enables you to stop saw without stopping engine. Simply built; nothing to get out of fix. Uses little fuel. Works well in any kind of weather and on any kind of ground.

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BUY CERTIFIED POTATO SEED OF MICHIGAN GROWERS.

It may be somewhat of a surprise to some of the readers of the Michigan Farmer to know that work has been carried on in this state during the past year with a view of certifying potatoes from forty-three fields comprising a total of over two hundred and fifty acres. There has been some mention made of this in the state papers but the fact has not been advertised very generally.

Each of these fields has been inspected during the growing period twice and the potatoes inspected after digging. In each of the fields inspected all hills of potatoes showing mixture or disease which would be transmissible into the seed stock were removed. This will insure a fairly dependable source of pure seed and seed practically free from transmissible diseases.

The growers who have had this work done have paid for the services. They expect to charge a price somewhat higher than that secured for ordinary stock. A list will be made up of all of the potato growers whose fields passed inspection. This list will include the addresses of the growers together with the varieties and number of bushels certified. Anyone desiring to secure the list should write H. C. Moore, secretary of the Michigan Potato Producers' Association, East Lansing. The certification work has been done under the auspices of the Michigan Potato Producers' Association. Some of the seed will no doubt be sold through the Michigan Potato Growers' Exchange and possibly some through the Seed Department of the Michigan State Farm Bureau. Individuals will in some cases sell their own seed and the office of the secretary of the Michigan Potato Producers' Association will help put those who have seed to sell in touch with those who wish to buy.

Michigan certified seed has given a good account of itself where planted and there is no reason why this work may not be developed as the demand for the seed increases.

C. W. WAID,
Extension Specialist.

ACTIVITIES OF CLOVERLAND.

(Continued from page 600).

Brown is official tester for the association.

Three hundred and ninety-nine Dickinson county farmers out of four hundred and sixteen had joined the State Farm Bureau at last accounts and there are others yet to be seen. Locals have been established at Ralph, Vulcan, Felch and Hardwood, and delegates elected to the meeting of the county organization. Other locals are in the process of formation.

The Munising News of October 22, announces the beginning of organization work in Alger county on the part of the State Farm Bureau. This is one of the last upper peninsula counties to be organized.

A feature of the plan of organization of the Delta County Farm Bureau locals that is regarded as a model for the state, is the incorporation of each local under the incorporation laws of Michigan. Each local has its own officers and board of directors, placed under bond. The Delta Farm Bureau will sell its members' potatoes through the Cadillac exchange with which it holds membership on behalf of its locals.

Gooseberries require an open, airy situation, and clean culture. The tops must be kept well thinned out, to insure good fruit. They should be dressed with well composted manure, and no weeds should be allowed to grow in the rows. These precautions are necessary to ward off mildew.



The Complete Dormant Spray

—makes better quality fruit

In almost every fruit section there are a few fruit-growers who produce better fruit and get a better price for it than their neighbors, and who also take the prizes at the fairs and fruit shows. Many of these skillful orchardists long ago selected Scalecide for their dormant spray—because Scalecide not only controls orchard pests controlled by other dormant sprays but does many things that no other spray or combination of sprays can do. Scalecide is becoming known even more for its invigorating effect on trees and its effectiveness in controlling other orchard troubles than for killing scale. Its invigorating effect is noted in increased

terminal growth; larger, darker foliage on bearing trees; and the holding of the foliage later in the Fall, thus accumulating starch and sugar which results in a plumper and stronger fruit spur. Scalecide kills insects, eggs and larvae of insects, and diseases that winter on the trunk or branches of the tree. It kills the hold-over cankers which cause fire blight, makes the old diseased bark peel off, and allows a new cambium to form. It kills the adults and controls Pear Psylla when applied in the Fall or on warm days in the Winter. (It is too late after their eggs are laid in the Spring). It kills aphids, too, when used as a delayed dormant spray.

Scalecide Requires Less Labor
One barrel of Scalecide, which makes 800 gallons of spray, will cover, until they drip, as many trees as three and a half barrels of lime-sulfur, which make 1600 gallons of spray. And of course you can apply 800 gallons of Scalecide with much less labor than 1600 gallons of lime-sulfur.

Scalecide Is Pleasant To Use
Scalecide is soothing, healing and antiseptic to skin of man or beast, whereas lime-sulfur is caustic and disagreeable. Scalecide does not injure, even the eyes. It does not corrode the spray pump nor clog the nozzles, and being an oil, it makes the pump run easier and last longer.

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Every claim we make for Scalecide has been proved in our own large orchards, which now total 26,000 trees, and verified by growers throughout the U. S. We speak to you from 10 years' experience as fruit-growers, and our recommendations are based upon profitable orchard practice.

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If there is a dealer in your section, ask him to reserve enough Scalecide for you. If there is no agent near you, write for our booklet, prices and guarantee, and give us the name of your dealer. Use the coupon below. Address Dept. 13.

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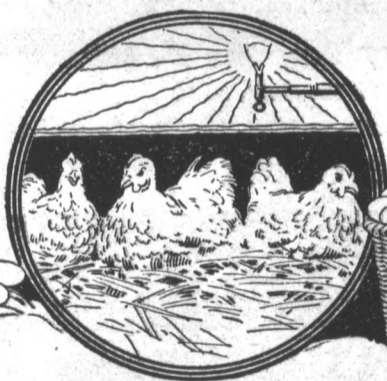
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My dealer is:..... (Name) (P.O.) (State)

Name..... P.O..... State.....

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100

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Colt Carbide Gas light is so near actual sunlight that it fooled the hens into working summer hours in winter weather.

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The Colt Carbide Lighting and Cooking Plant is easy to install, it is so simple that the hired man or a boy 12 years old can keep it in operation with but a few minutes attention each month. Costs nothing to maintain when not in use and is most economical. Colt home made gas light is clean, odorless, smokeless.

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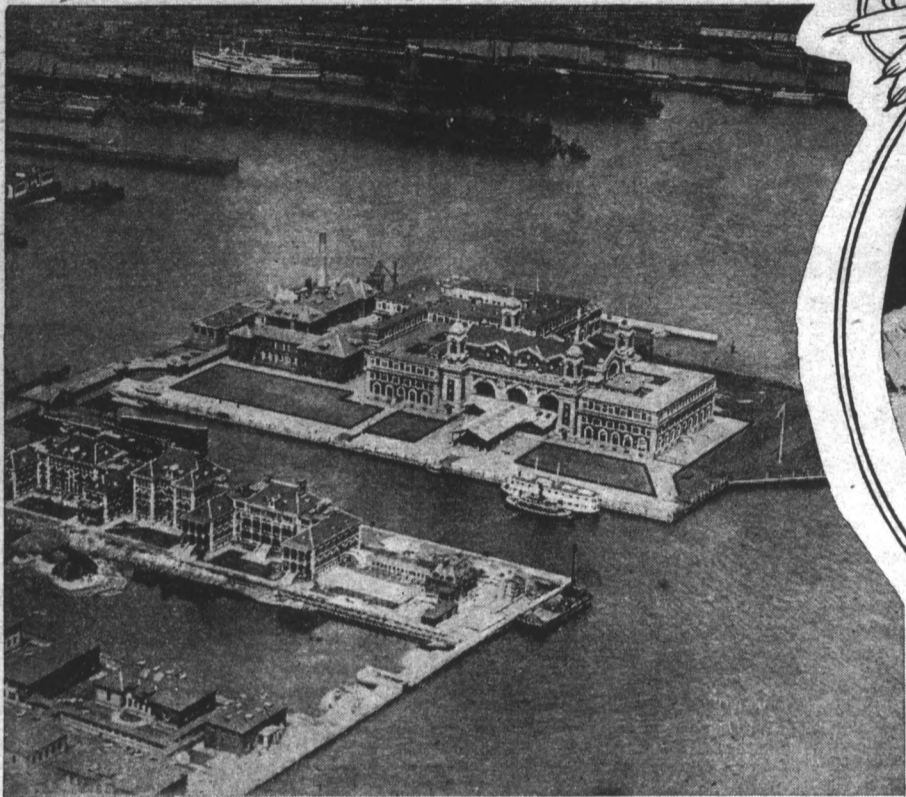
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WORLD EVENTS IN PICTURES



A birdseye view of Ellis Island, where throngs of prospective citizens are carefully examined before entering the country.



A sculptor's idea of Theodore Roosevelt as Americans best knew and admired him.



The nery photographer managed to secure this picture of Arabian devotees at prayer in the Algerian desert, notwithstanding the Mohammedan opposition to being photographed at prayer.



Members of a poultry club gathering leaves to use on floors of coops this winter.



Probably the first instance of a Chinaman being called for jury duty in the United States. Chin Toon, who lives in Boston, is reading the summons to duty.



Seventy-eight years old and still riding his faithful bicycle on which he has covered 102,000 miles in the past twenty years.



Prince Paul of Greece, shown at the left, is offered the throne made vacant by the death of King Alexander, here pictured. Prince Paul is now nineteen years of age.

THE VALLEY OF THE GIANTS

A ROMANCE OF THE REDWOODS

By Peter B. Kyne



"Well," Shirley made answer, glad that he could not see the flush of confusion and embarrassment that crimsoned her cheek, "when I came to Sequoia last May, your son and I met, quite accidentally. The stage to Sequoia had already gone, and he was gracious enough to invite me to make the journey in his car. Then we recalled having met as children, and presently I gathered from his conversation that he and his John-partner, as he called you, were very dear to each other. I was witness to your meeting that night—I saw him take you in his big arms and hold you tight because you'd-gone blind while he was away having a good time. And you hadn't told him! I thought that was brave of you; and later, when Bryce and Moira McTavish told me about you—how kind you were, how you felt your responsibility toward your employes and the community—well, I just couldn't help a leaning toward John-partner and John-partner's boy, because the boy was so fine and true to his father's ideals."

"Ah, he's a man. He is indeed," old John Cardigan murmured proudly. "I dare say you'll never get to know him intimately, but if you should—"

"I know him intimately," she corrected him. "He saved my life the day the log-train ran away. And that was another reason. I owed him a debt, and so did my uncle; but uncle wouldn't pay his share, and I had to pay for him."

"Wonderful," murmured John Cardigan, "wonderful! But still you haven't told me why you paid a hundred thousand dollars for the Giants when you could have bought them for fifty thousand. You had a woman's reason, I dare say, and women always reason from the heart, never the head. However, if you do not care to tell me, I shall not insist. Perhaps I have appeared unduly inquisitive."

"I would rather not tell you," she answered.

A gentle, prescient smile fringed his old mouth; he wagged his leonine head as if to say: "Why should I ask, when I know?" Fell again a restful silence. Then:

"Am I allowed one guess, Miss Shirley Sumner?"

"Yes, but you would never guess the reason."

"I am a very wise old man. When one sits in the dark, one sees much that was hidden from him in the full glare of the light. My son is proud, manly, independent, and the soul of honor. He needed a hundred thousand dollars; you knew it. Probably your uncle informed you. You wanted to

loan him some money, but—you could not. You feared to offend him by proffering it; had you proffered it, he would have declined it. So you bought my Valley of the Giants at a preposterous price and kept your action a secret." And he patted her hand gently, as if to silence and denial, while far down the skid-road a voice—a half-trained baritone—floated faintly to them through the forest. Somebody was singing—or rather chanting—a singularly tuneless refrain, wild and barbaric.

"What is that?" Shirley cried.

"That is my son, coming to fetch his old daddy home," replied John Cardigan. "That thing he's howling is an Indian war-song or paen of triumph—something his nurse taught him when he wore pinafores. If you'll excuse me, Miss Shirley Sumner, I'll leave you now. I generally contrive to meet him on the trail."

He bade her good-bye and started down the trail, his stick tapping against the old logging-cable stretched from tree to tree beside the trail and marking it.

Shirley was tremendously relieved. She did not wish to meet Bryce Cardigan today and she was distinctly grateful to John Cardigan today for his nice consideration in sparing her an interview. She seated herself in the lumberjack's easy-chair so lately vacated, and chin in hand, gave herself up to meditation on this extraordinary old man and his extraordinary son.

A couple of hundred yards down the trail Bryce met his father. "Hello, John Cardigan!" he called. "What do you mean by skallyhooting through these woods without a pilot? Eh? Explain your reckless conduct."

"You great overgrown duffer," his father retorted affectionately, "I thought you'd never come." He reached into his pocket for a handkerchief, but failed to find it and searched through another pocket and still another. "By gravy, son," he remarked presently, "I do believe I left my silk handkerchief—the one Moira gave me for my last birthday—up yonder. I wouldn't lose that handkerchief for a farm. Skip along and find it for me, son. I'll wait for you here. Don't hurry."

"I'll be back in a pig's whisper," his son replied, and started briskly up the trail, while his father leaned against a madrone tree and smiled his prescient little smile.

Bryce's brisk step on the carpet of

withered brown twigs aroused Shirley from her reverie. When she looked up, he was standing in the center of the little amphitheater gazing at her.

"You—you!" she stammered, and rose as if to flee from him.

"The governor sent me back to look for his handkerchief, Shirley," he explained. "He didn't tell me you were here. Guess he didn't hear you." He advanced smilingly toward her. "I'm tremendously glad to see you today, Shirley," he said, and paused beside her. "Fate has been singularly kind to me. Indeed, I've been pondering all day as to just how I was to arrange a private and confidential little chat with you, without calling upon you at your uncle's house."

"I don't feel like chatting today," she answered a little drearly—and then he noted her wet lashes. Instantly he was on one knee beside her; with the amazing confidence that had always distinguished him in her eyes, his big left arm went around her, and when her hands went to her face, he drew them gently away.

"I've waited too long, sweetheart," he murmured. "Thank God, I can tell you at last all the things that have been accumulating in my heart. I love you, Shirley. I've loved you from that first day we met at the station, and all these months of strife and repression have merely served to make me love you the more. Perhaps you have been all the dearer to me because you seemed so hopelessly unattainable."

He drew her head down on his breast; his great hand patted her hot cheek; his honest brown eyes gazed earnestly, wistfully into hers. "I love you," he whispered. "All that I have—all that I am—all that I hope to be—I offer to you, Shirley Sumner; and in the shrine of my heart I shall hold you sacred while life shall last. You are not indifferent to me, dear. I know you're not; but tell me—answer me—"

Her violet eyes were uplifted to his, and in them he read the answer to his cry. "Ah, may I?" he murmured, and kissed her.

"Oh, my dear, impulsive, gentle big sweetheart," she whispered—and then her arms went around his neck, and the fullness of her happiness found vent in tears he did not seek to have her repress. In the safe haven of his arms she rested; and there, quite without effort or distress, she managed to convey to him something more than an inkling of the thoughts that were wont

to come to her whenever they met. "Oh, my love!" he cried happily, "I hadn't dared dream of such happiness until today. You were so unattainable—the obstacles between us were so many and so great—"

"Why today, Bryce?" she interrupted him.

He took her adorable little nose in his great thumb and forefinger and tweaked it gently. "The light began to dawn yesterday, my dear little enemy, following an interesting half-hour which I put in with his honor the mayor. Acting upon suspicion only, I told Poundstone I was prepared to send him to the rock-pile if he didn't behave himself in the matter of my permanent franchise for the N. C. O.—and the oily old invertebrate wept and promised me anything if I wouldn't disgrace him. So I promised I wouldn't do anything until the franchise matter should be definitely settled—after which I returned to my office, to find awaiting me there no less a person than the right-of-way man for the Northwestern Pacific. He was a perfectly delightful young fellow, and had a proposition to unfold. It seems the Northwestern Pacific has decided to build up from Willits, and all that powwow and publicity of Buck Ogilvy's about the N. C. O. was in all probability the very thing that spurred them to action. They figured the C. M. & St. P. was back of the first link of a chain of coast roads to be connected ultimately with the terminus of the C. M. & St. P. on Gray's Harbor, Washington. And if the N. C. O. should be built, it meant that a rival road would get the edge on them in the matter of every stick of Humboldt and Del Norte redwood—and they'd be left holding the sack."

"Why did they think that, dear?"

"That amazing rascal, Buck Ogilvy, used to be a C. M. & St. P. man; they thought they traced an analogy, I dare say. Perhaps Buck fibbed to them. At any rate, this right-of-way man was mighty anxious to know whether or not the N. C. O. had purchased from the Cardigan Redwood Lumber Company a site for a terminus on tidewater (we control all the deep-water frontage on the Bay), and when I told him the deal had not yet been closed, he started to close one with me."

"Did you close?"

"My dear girl, will a duck swim? Of course I closed. I sold three-quarters of all we had, for three-quarters of a million dollars, and an hour ago I received a wire from my attorney in San Francisco informing me that the money had been deposited in escrow there awaiting formal deed. That money

AL ACRES—Al Always Seems Prepared for Any Emergency.

—By Frank R. Leet



puts the Cardigan Redwood Lumber Company in the clear—no receivership for us now, my dear one. And I'm going right ahead with the building of the N. C. O.—While our holdings down on the San Hedrin double in value, for the reason that within three years they will be accessible and can be logged over the rails of the Northwestern Pacific!"

"Bryce," Shirley declared, "haven't I always told you I'd never permit you to build the N. C. O.?"

"Of course," he replied, "but surely you're going to withdraw your objections now."

"I am not. You must choose between the N. C. O. and me." And she met his surprised gaze unflinchingly.

"Shirley! You don't mean it?"

"I do mean it. I have always meant it. I love you, dear, but for all that, you must not build that road."

He stood up and towered above her sternly. "I must build it, Shirley. I've contracted to do it, and I must keep faith with Gregory of the Trinidad Timber Company. He's putting up the money, and I'm to do the work and operate the line. I can't go back on him now."

"Not for my sake?" she pleaded. He shook his head. "I must go on," he reiterated.

"Do you realize what that resolution means to us?" The girl's tones were grave, her glance graver.

"I realize what it means to me!"

She came closer to him. Suddenly the blaze in her violet eyes gave way to one of mirth. "Oh, you dear big booby!" she cried. "I was just testing you." And she clung to him, laughing. "You always beat me down—you always win. Bryce, dear, I'm the Laguna Grande Lumber Company—at least, I will be tomorrow, and I repeat for the last time that you shall not build the N. C. O.—because I'm going to—oh, dear, I shall die laughing at you—because I'm going to merge with the Cardigan Redwood Lumber Company, and then my railroad shall be your railroad, and we'll extend it and haul Gregory's logs to tidewater for him also. And—silly, didn't I tell you you'd never build the N. C. O.?"

"Lord bless my mildewed soul!" he murmured, and drew her to him.

In the gathering dusk they walked down the trail. Beside the madrone tree John Cardigan waited patiently.

"Well," he queried when they joined him, "did you find my handkerchief for me, son?"

"I didn't find your handkerchief, John Cardigan," Bryce answered, "but I did find what I suspect you sent me back for—and that is a perfectly wonderful daughter-in-law for you."

John Cardigan smiled and held out his arms for her. "This," he said, "is the happiest day that I have known since my boy was born."

CHAPTER XXXIX.

COLONEL SETH PENNINGTON was thoroughly crushed. Look which way he would, the bedevilled old rascal could find no loophole for escape.

"You win, Cardigan," he muttered desperately as he sat in his office after Shirley had left him. "You've had more than a shade in every round thus far, and at the finish you've landed a clean knockout. If I had to fight any man but you—"

He sighed resignedly and pressed the push-button on his desk. Sexton entered. "Sexton," he said bluntly and with a slight quiver in his voice, "my niece and I have had a disagreement. We have quarreled over young Cardigan. She's going to marry him. Now, our affairs are somewhat involved, and in order to straighten them out, we spun a coin to see whether she should sell her stock in Laguna Grande to me or whether I should sell mine to her—and I lost. The book-valuation of the stock at the close of last year's busi-



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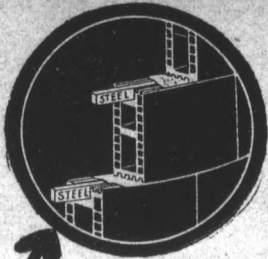
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ness, plus ten per cent, will determine the selling price, and I shall resign as president. You will, in all probability, be retained to manage the company until it is merged with the Cardigan Redwood Lumber Company—when, I imagine, you will be given ample notice to seek a new job elsewhere. Call Miss Sumner's attorney, Judge Moore, on the telephone and ask him to come to the office at nine o'clock tomorrow, when the papers can be drawn up and signed. That is all."

The Colonel did not return to his home in Redwood Boulevard that night. He had no appetite for dinner and sat brooding in his office until very late; then he went to the Hotel Sequoia and engaged a room. He did not possess sufficient courage to face his niece again.

At four o'clock the next day, the Colonel, his baggage, his automobile, his chauffeur, and the solemn butler James, boarded the passenger steamer for San Francisco, and at four-thirty sailed out of Humboldt Bay over the thundering bar and on into the south. The Colonel was still a rich man, but his dream of a redwood empire had faded, and once more he was taking up the search for cheap timber. Whether he ever found it or not is a matter that does not concern us.

At a moment when young Henry Poundstone's dream of a legal opulence was fading, when Mayor Poundstone's hopes for domestic peace had been shattered beyond repair, the while his cheap political aspirations had been equally devastated because of a certain damnable document in the possession of Bryce Cardigan, many events of importance were transpiring. On the veranda of his old-fashioned home, John Cardigan sat tapping the floor with his stick and dreaming dreams which, for the first time in many years, were rose-tinted. Beside him Shirley sat, her glance bent musingly out across the roofs of Sequoia and on to the bay shore, where the smoke and exhaust-steam floated up from two sawmills—her own and Bryce Cardigan's. To her came at regularly spaced intervals the faint whining of the saws and the rumble of log-trains crawling out on the log-dumps; high over the piles of bright, freshly sawed lumber she caught from time to time the flash of white spray as the great logs tossed from the trucks, hurtled down the skids, and crashed into the Bay. At the docks of both mills vessels were loading, their tall spars cutting the sky-line above and beyond the smokestacks; far down the Bay a steam schooner, loaded until her main-deck was almost flush with the water, was putting out to sea, and Shirley heard the faint echo of her siren as she whistled her intention to pass to starboard of a wind-jammer inward bound in tow of a Cardigan tug.

"It's wonderful," she said presently, apropos of nothing.

"Aye," he replied in his deep, melodious voice, "I've been sitting here, my dear, listening to your thoughts. You know something, now, of the tie that binds my boy to Sequoia. This"—he waved his arm abroad in the darkness—"this is the true essence of life—to create, to develop the gifts that God has given us—to work and know the blessing of weariness—to have dreams and see them come true. That is life, and I have lived. And now I am ready to rest." He smiled wistfully. "The king is dead. Long live the king." I wonder if you, raised as you have been, can face life in Sequoia resolutely with my son. It is a dull, drab sawmill town, where life unfolds gradually without thrill—where the years stretch ahead of one with only trees, among simple folk. The life may be hard on you, Shirley; one has to acquire a taste for it, you know."

"I have known the lilt of battle, John-partner," she answered; "hence

I think I can enjoy the sweets of victory. I am content."

"And what a run you did give that boy Bryce!"

She laughed softly. "I wanted him to fight; I had a great curiosity to see the stuff that was in him," she explained.

CHAPTER XL.

NEXT day Bryce Cardigan, riding the top log on the end truck of a long train just in from Cardigan's woods in Township Nine, dropped from the end of the log train as the train crawled through the mill-yard on its way to the log dump. He hailed Buck Ogilvy, where the latter stood in the door of the office.

"Big doings up on Little Laurel Creek this morning, Buck."

"Do tell!" Mr. Ogilvy murmured morosely.

"It was great," Bryce continued. "Old Duncan McTavish returned. I knew he would. His year on the mourner's-bench expired yesterday, and he came back to claim his old job of woods-boss."

"He's one year too late," Ogilvy declared. "I wouldn't let that big Canadian Jules Rondeau quit for a farm. Some woods-boss, that—and his first job with this company was the dirtiest you could hand him—smearing grease on the skid-road at a dollar and a half a day and found. He's made too good to lose out now. I don't care what his private morals may be. He can get out the logs, hang his rascally hide, and I'm for him."

"I'm afraid you haven't anything to say about it, Buck," Bryce replied dryly.

"I haven't, eh? Well, any time you deny me the privilege of hiring and firing, you're going to be out the service of a rattling good general manager, my son. Yes, sir! If you hold me responsible for results, I must select the tools I want to work with."

"Oh, very well," Bryce laughed. "Have it your own way. Only if you can drive Duncan McTavish out of Cardigan's woods, I'd like to see you do it. Possession is nine points of the law, Buck—and old Duncan is in possession."

"What do you mean—in possession?"

"I mean that at ten o'clock this morning Duncan McTavish appeared at our log-landing. The whisky-fat was all gone from him, and he appeared forty years old instead of the sixty he is. With a whoop he came jumping over the logs, straight for Jules Rondeau. The big Canuck saw him coming and knew what his visit portended—so he wasn't taken unawares. It was a case of fight for his job and—Rondeau fought."

"The devil you say!"

"I do—and there was the devil to pay. It was a rough and tumble and no grips barred—just the kind of fight Rondeau likes. Nevertheless old Duncan floored him. While he's been away somebody taught him the hammer-lock and the crotch-hold and a few more fancy ones, and he got to work on Rondeau in a hurry. In fact, he had to, for if the tussle had gone over five minutes Rondeau's youth would have decided the issue."

"And Rondeau was whipped?"

"To a whisper. Mac floored him, climbed him, and choked him until he beat the ground with his free hand in token of surrender; whereupon old Duncan let him up, and Rondeau went to his shanty and packed his turkey. The last I saw of him he was headed over the hill to Camp Two on Laguna Grande. He'll probably chase that assistant woods-boss I hired after the consolidation, out of Shirley's woods and help himself to the fellow's job. I don't care if he does. What interests me is the fact that the old Cardigan woods-boss is back on the job in Cardigan's woods, and I'm mighty glad of it. The old horsethief has had his

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lesson and will remain sober hereafter. I think he's cured."

"The infamous old outlaw."
 "Mac knows the San Hedrin as I know my own pocket. He'll be a tower of strength when we open up that tract after the railroad builds in. By the way, has my dad been down this morning?"

"Yes. Moira read the mail to him and then took him up to the Valley of the Giants. He said he wanted to do a little quiet figuring on that new steam schooner you're thinking of building. He thinks she ought to be bigger—big enough to carry two million feet."

Bryce glanced at his watch. "It's half after eleven," he said. "Guess I'll run up to the Giants and bring him home to luncheon."

He stepped into the Napier standing outside the office and drove away. Buck Ogilvy waited until Bryce was out of sight; then with sudden determination he entered the office.

"Moira," he said abruptly, approaching the desk where she worked, "your dad is back, and what's more, Bryce Cardigan has let him have his old job as woods-boss. And I'm here to announce that you're not going back to the woods to keep house for him. Understand? Now, look here, Moira. I've shilly-shallied around you for months, protesting my love, and I haven't gotten anywhere. Today I'm going to ask you for the last time. Will you marry me? I need you worse than that rascal of a father of yours does, and I tell you I'll not have you go back to the woods to take care of him. Come, now, Moira. Do give me a definite answer."

"I'm afraid I don't love you well enough to marry you, Mr. Ogilvy," Moira pleaded. "I'm truly fond of you, but—"

"The last boat's gone," cried Mr. Ogilvy, desperately. "I'm answered. Well, I'll not stick around here much longer, Moira. I realize I must be a nuisance, but I can't help being a nuisance when you're near me. So I'll quit my job here and go back to my old game of railroading."

"Oh, you wouldn't quit a ten-thousand-dollar job," Moira cried, aghast.

"I'd quit a million-dollar job. I'm desperate enough to go over to the mill and pick a fight with a big band-saw. I'm going away where I can't see you. Your eyes are driving me crazy."

"But I don't want you to go, Mr. Ogilvy."

"Call me Buck," he commanded sharply.

"I don't want you to go, Buck," she repeated meekly. "I shall feel guilty, driving you out of a fine position."

"Then marry me and I'll stay."

"But suppose I don't love you the way you deserve—"

"Suppose! Suppose!" Buck Ogilvy cried. "You're no longer certain of yourself. How dare you deny your love for me? Eh? Moira, I'll risk it."

Her eyes turned to him timidly, and for the first time he saw in their smoky depths a lambent flame. "I don't know," she quavered, "and it's a big responsibility in case—"

"Oh, the devil take the case!" he cried rapturously, and took her hands in his. "Do I improve with age, dear Moira," he asked with boyish eagerness; then before she could answer, he swept on, a tornado of love and pleading. And presently Moira was in his arms, and he was kissing her, and she was crying softly because—well, she admired Mr. Buck Ogilvy; more, she respected him and was genuinely fond of him. She wondered, and as she wondered, a quiet joy thrilled her in the knowledge that it did not seem at all impossible for her to grow, in time, absurdly fond of this wholesome red rascal.

"Oh, Buck, dear," she whispered, "I

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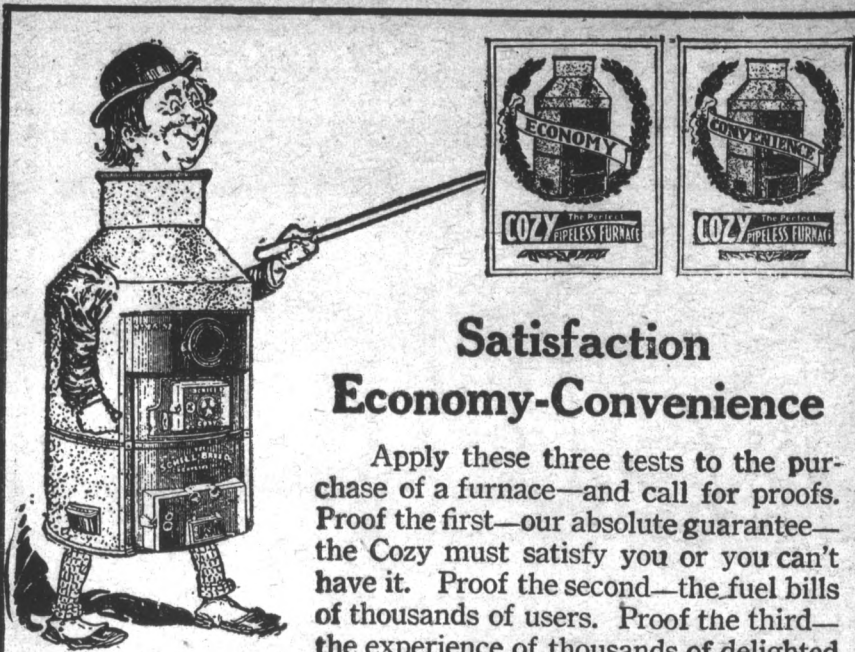
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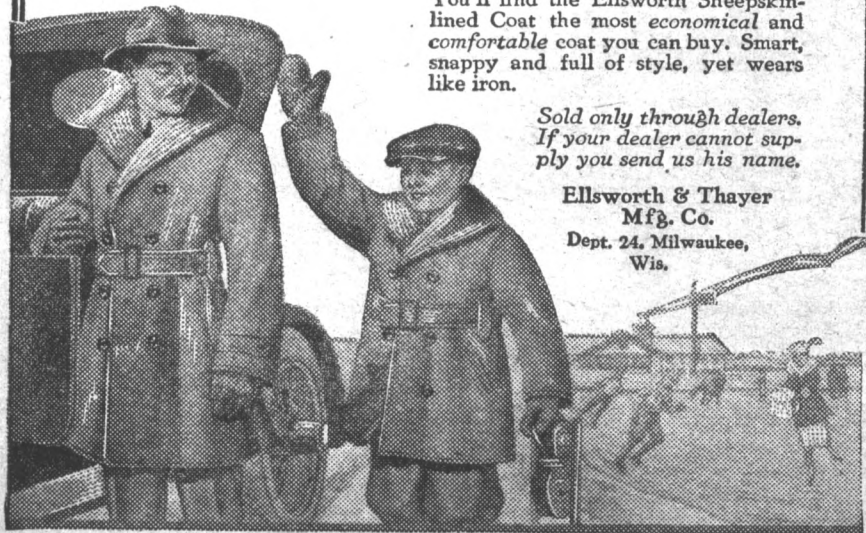
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don't know, I'm sure, but perhaps I've loved you a little bit for a long time." "I'm perfectly wild over you. You're the most wonderful woman I ever heard of. Old rosy-cheeks!" And he pinched them just to see the color come and go.

John Cardigan was seated in his lumberjack's easy-chair as his son approached. His hat lay on the litter of brown twigs beside him; his chin was sunk on his breast, and his head was held a little to one side in a listening attitude; a vagrant little breeze rustled gently a lock of his fine, long white hair. Bryce stooped over the old man and shook him gently by the shoulder.

"Wake up, partner," he called cheerfully. But John Cardigan did not wake, and again his son shook him. Still receiving no response, Bryce lifted the leonine old head and gazed into his father's face. "John Cardigan!" he cried sharply. "Wake up, old pal."

The old eyes opened, and John Cardigan smiled up at his boy. "Good son," he whispered, "good son!" He closed his sightless eyes again as if the mere effort of holding them open wearied him. "I've been sitting here—waiting," he went on in the same gentle whisper. "No, not waiting for you, boy—waiting—"

His head fell over on his son's shoulder; his hand went groping for Bryce's. "Listen," he continued. "Can't you hear it—the Silence? I'll wait for you here, my son. Mother and I will wait together now—in this spot she fancied. I'm tired—I want rest. Look after old Mack and Moira—and Bill Dandy, who lost his leg at Camp Seven last fall—and Tom Ellington's children—and—all the others, son. You know, Bryce. They're your responsibilities. Sorry I can't wait to see the San Hedrin opened up, but—I've lived my life and loved my love. Ah, yes, I've been happy—so happy just doing things—and—dreaming here among my Giants—and—and—"

He sighed gently. "Good son," he whispered again; his big body relaxed,

and the great heart of the Argonaut was still. Bryce held him until the realization came to him that his father was no more—that like a watch, the winding of which has been neglected, he had gradually slowed up and stopped.

"Good-bye, old John-partner!" he murmured. "You've escaped into the light at last. We'll go home together now, but we'll come back again."

And with his father's body in his strong arms he departed from the little amphitheatre, walking lightly with his heavy burden down the old skid-road to the waiting automobile. And two days later John Cardigan returned to rest forever with his lost mate among the Giants, himself at last an infinitesimal portion of that tremendous silence that is the diapason of the ages.

When the funeral was over, Shirley and Bryce lingered until they found themselves alone beside the freshly turned earth. Through a rift in the great branches two hundred feet above, a patch of cerulean sky showed faintly; the sunlight fell like a broad golden shaft over the blossom-laden grave, and from the brown trunk of an adjacent tree a gray squirrel, a descendant, perhaps of the gray squirrel that had been wont to rob Bryce's pockets of pine-nuts twenty years before, chirped at them inquiringly.

"He was a giant among men," said Bryce presently. "What a fitting place for him to lie!" He passed his arm around his wife's shoulders and drew her to him. "You made it possible, sweetheart."

She gazed up at him in adoration. And presently they left the Valley of the Giants to face the world together, strong in their faith to live their lives and love their loves, to dream their dreams and perchance when life should be done with and the hour of rest at hand, to surrender, sustained and comforted by the knowledge that those dreams had come true.

THE END.

Armistice Day, 1920

Our Weekly Sermon—By N. A. McCune

ARMISTICE DAY, 1920, is very different from the first armistice day, 1918. Then the world's joy knew no bounds. People were delirious with happiness. The Great War was over. But today we have come down off the mountain of delight. We are plodding over the old earthy earth in a very commonplace way. To quote a certain writer and say we have been disillusioned, is to put it about right. The transformation of earth into heaven, we are finding, cannot be done by lightning methods.

Now, people don't like a gloomy preacher. At the same time a frothy preacher is about as bad. While the "Reverend Sorrowful Gloom" may not be in demand, his half-brother, the Reverend I. B. Shallow, is not overburdened with engagements. In other words, while it may seem a dark picture at the present time, we must face issues as they are. Facts are stubborn things, and we must not blink them. If we do, they will arise and smite us. What, then, are some of the conditions that face us today?

THIS summer there have been three American clergymen traveling in different parts of the world, one in England, one on the continent and one in Australia. These men are experienced travelers and acute observers. They have been in journalistic work for years. They all tell the same story. Wherever they go, it is a tale of disappointment over the treaty, or fear of more war, and of hatred of other mans, and besides that there are in-races. One quotes Sir P. Gibbs: "No man, unless he is blind or drunk with ed it "The reign of hate." As for Amer-

optimism can deny that Europe at this time is very sick. Europe is a seething cauldron of suspicions, jealousies, and hatreds." An American army officer in Buda Pesth says that all the governments of that part of Europe are expecting hostilities to break out and are quietly getting ready for them. England has scarcely had a peaceful day since the armistice began. It has been one long strike, or threat of strike, after another, with immense dissatisfaction expressed with the present government. Field Marshal Sir H. Wilson says that England did not enter the war on account of the moral aims which were so freely advertised, but "to save our skins." The Australian traveler reports that an orgy of gambling and extravagance have passed over that land. Mr. Filene, the head of a large retail store in Boston, has just returned from Europe, where he spent several months. He talked with all classes and conditions of men—professional men, labor leaders, big business men, and government officials. He says: "Nothing but a birth of good-will can save Europe. Our new political machinery, our league of nations, our international court can help, but it is only by getting good-will into the hearts of the people that Europe can be saved, from revolutions worse than war and utter collapse." The fact that looms blackest on the horizon is hate. Everybody over there is hating somebody. Germans hate the French and English, France hates the German, and besides that there are in-races. Someone has called it "The reign of hate." As for Amer-

ica, the facts are available to everyone. One item will do. Our normal peace expenditure is not to be less than six thousand million dollars annually. That is six times what it was before the war. It is equal to paying out a dollar a minute for eleven thousand years. And we are in the best condition financially of any of the warring nations.

BUT there is another side to it. There is good in the world, as well as evil. During the past summer a great conference was held in Switzerland of all the Protestant bodies of America and Britain, all the Protestant bodies of the European countries, and in addition representatives of the Greek and Russian Orthodox church were there, said to have a constituency of one hundred and thirty millions of people. No such meeting has ever been held, and it was the purpose of getting a common viewpoint, and sharing a common cause. Then, there is the work of the German League of Nations Society, which aims to teach children to believe in peace as in the past they were taught to believe in war. The very fact that the League of Nations idea is an old one, is encouraging. The "Save the Children" movement shows that many people are forgetting the past, or are trying to, and are holding out the helping hand to those whom they were recently fighting.

Now, what are the religious aspects of this state of things? Answer: The whole matter is religious. If religion, if good-will cannot be imported into the questions that vex the nations, there is naught ahead but trouble. Nothing but religion will afford help. The bewildered times teach us, too, that patience is a virtue that must be learned and practiced. You cannot introduce the kingdom of God by the methods of the efficiency expert. It consumes time and faith and sacrifice and, it may be, tears and death.

In an hour as serious as the present it is evident that we require a big God. And such a God we have. There are some vital things to be said concerning the method of bringing in a better day, which can be taken up at another time.

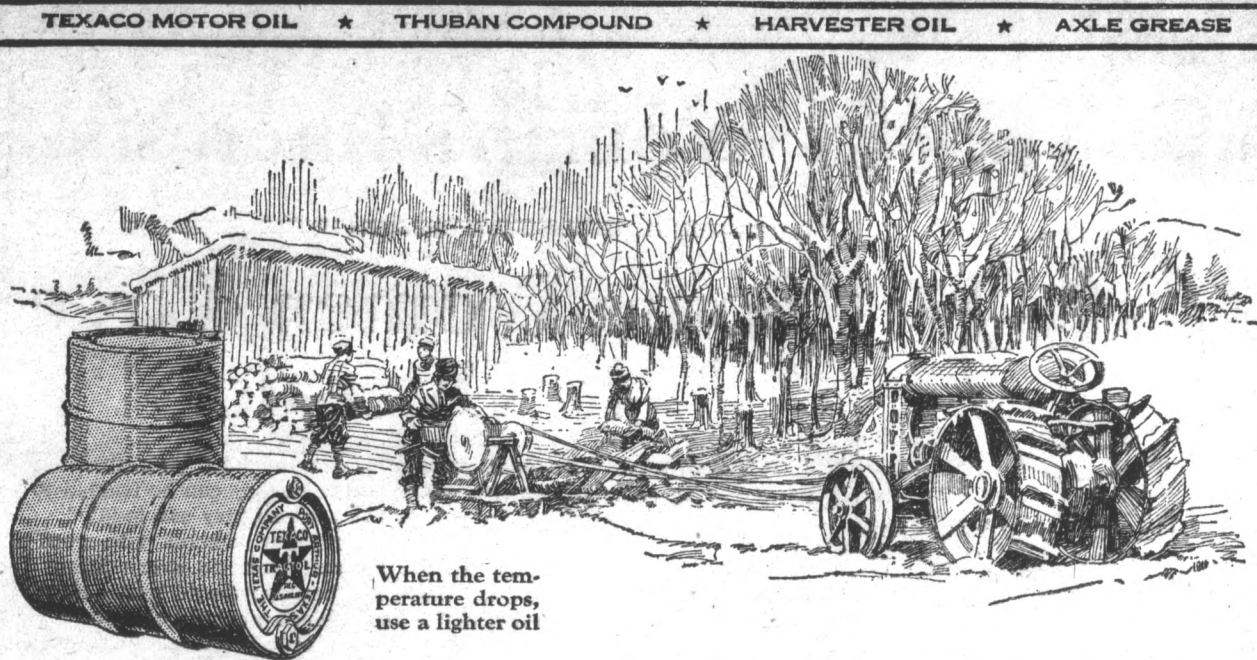
Sunshine Hollow Items

By Rube Rubicon

When some Sunshine Hollow folks get their picture taken they always look sort of sad and say they don't think it is very good. This is done so they will seem modest. But it seems kind of conceited not to like what the photographer has done when he has done his best with the material. When folks get their picture taken and it don't look like them they sometimes think it is a fine picture. When it looks like them they are sore. But Porter Greenwood says what's the use of getting a picture taken by a photographer that can't make a feller look better than he really does.

Timothy McCann came home very discouraged and hung himself to the bed post. The jury decided that Timothy went to bed full and mistook himself for a pair of pants. Folks said that Timothy was a poor prune anyway and probably did it just to make folks feel bad and feel sorry for him. Real estate folks say the McCann house won't sell for much money now on account of its being sort of haunted in the room where the bedstead was.

Aunt Catherine Selby says that men are deceitful and that's why she never married any of them. She knows a man that came home late and told his wife it was twelve o'clock. Just then the clock cuckooed three times and that man stood in the hall and cuckooed nine times more to fool his wife.



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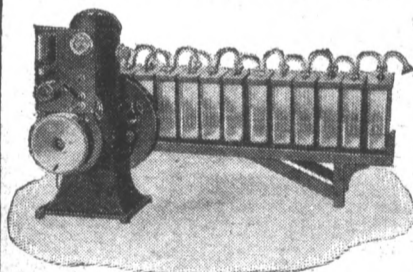
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Woman's Interests

Some Women Love to Over-do



I HAVE always felt the deepest sympathy for over-worked women, but of late I am coming of the opinion that much of my sympathy has been wasted. Not that the over-worked woman doesn't exist, but that in all too many cases she need not be overworked if she didn't enjoy it.

In fact, I am forced to the reluctant conclusion that a large number of women enjoy the martyr role. They'd rather be miserable than to have a good time, and they go out of their way to hunt up something to do, so they can groan about it to friend husband, and outdo the stories of woe related by friends and neighbors.

Now, mark me, I am not denying that some women are actually called upon to do work beyond their strength. There are all too many of these. But side by side with them are women who need not do half the things they are doing. And it is usually the class which makes all the fuss. The really over-worked woman keeps on grinding and says nothing. She hasn't time to complain.

Just the other day a case came up which shows how some women over-do. It was in a farm home where the children are married and gone, and father and mother live on alone. Father has sensibly let the land, all but a garden patch, and takes things easy, to suit his years. Mother still thinks she must dig and delve from five in the morning until eight at night. This is what happened a short time ago. A married daughter, thinking to make mother's lot easier, came home on Monday and cleaned the house from top to bottom, swept, dusted, scrubbed kitchen and cellar stairs, and left everything in apple pie order. On Wednesday, after a lapse of exactly twenty-four hours, mother repeated the operation. Not the slightest use of it, the house was clean.

Of course this is an exceptional case, and might be laid to the score of childishness in an old woman. But old women are the natural result of their habits as younger women. Our old age is merely the outcome of all our previous years. If this woman had not always been doing unnecessary things, she would not in her old age.

Then there is a young woman, who is even more foolish. She has not been well for weeks. Two months ago she went to a physician who found a weak heart, and not only advised, but commanded rest. She came home and started house cleaning, carried mattresses down stairs, beat rugs, washed woodwork and windows, all work too heavy for any woman but the strongest. Her plea was that if she should drop dead some day she wanted to be found in a clean house.

These things may seem rare and exceptional, but they are not so exceptional as one would think. Scores of women do unnecessary things every day, because "everybody does it." Why dry dishes, when scalding water is easy to get, and more sanitary than towels? Why iron knit underwear, Turkish towels, face cloths, stockings? Yet countless women do it, and have to trudge back and forth to a hot stove

after irons. Why pick up after children, when they can be trained to pick up as soon as they can toddle?

How many women with good-sized girls and boys do every bit of their work, because they'd rather do it than be bothered teaching children? Or because they think the children ought to play all the time? Why should a girl of twelve, or even of eight, do nothing but go to school and play? She should not be made a drudge, she needs fun, and plenty of it. But it wouldn't hurt her to dust the living-room, or clear the table, or dry the silver. And she'd like nothing better than to be allowed to make a cake. If the mother gains only ten minutes a day in time, that

would be worth while. Ten minutes' rest is better than no rest.

In the matter of cooking, how many women make slaves of themselves? What family needs two kinds of cookies, or cookies and doughnuts at one meal? And why cookies and cake and pie? The family health would be better for plenty of fresh vegetables and fruit and only one baked sweet. And the mother would have less to do.

There is plenty for women with families to do, if they do only the necessary. Fortunately the modern woman is coming to distinguish between necessities and frills in work, but all too many still cling to the frills. If you are one of that sort, don't complain of working too hard. **DEBORAH.**

Fall Fabrics and Modes

NEXT to the problem of what shall we eat, what shall we wear occupies the waking thoughts of the normal woman. A careful look about the stores does not show any of that promised drop in prices, so far as women's garments are concerned. To be sure, you can buy cheap suits and coats, but they are cheap in quality as well as in price. The fact remains that if you want good material and workmanship, the prices are no lower this year than last.

As to color, brown is strong, a chocolate brown having high favor. Then there is a new deep rich green, called by some pine needle green, blues—midnight and Pekin—gray and all our old standard colors, some in their own name, some masquerading under new.

Soft velvety fabrics, peachbloom, duvety, bolivia and velours, are chosen for coats, suits and even some dresses. Coats are not so much different from last season's. They are loose, shawl collared, and belted. The chief difference is in the position of the belt. This season the waist line is low, so the belt must be placed down. Often they are buckled with metal buckles the color of the coat. String belts an inch in width go twice around the waist and tie.

Suits are distinguished by long, straightlined coats, with the low waistline. High choker collars are good, of self material or of fur. Buttons match the color of the suits, and are often in groups of three or four. The same soft materials which make the coats, are used in suits.

Of blouses, the style is legion. There are over-blouses, and blouses which end at the waistline and are confined by girdles, Russian blouses and surplice blouses. For the most part the sleeves are short or three-quarter, though occasionally there is one with long sleeves. There are round necks, square necks and V-necks, necks with collars and necks without. Of course, there is embroidery. And there are blouses of plain georgette, and figured georgette, blouses with velvet bodies and georgette sleeves. You are pretty safe in choosing anything becoming.

The new hats are a little larger than last season. The small turban which has had a long lease of life is on the wane. There are velvet hats with wide brims or turned up brims, hats swathed in feathers or with a simple band of ribbon, according to the use you are to make of it. Embroidery of gold thread or of riotous colors is as good in millinery as on garments.

Then there is the ever-important question, the length of the skirt. If you are extremely frivolous you can have your skirt twelve inches from the ground. But if you are conservative and still want to look "right" make it eight.



This suit of ribbed wool velour is especially appropriate for the high school or college girl. The snug muffler collar gives added warmth.

WHAT MILK DOES FOR KIDDIES.

THE school nurse in one Missouri town weighed and measured all the children in the first four grades, finding only fifteen per cent of them normal. Of the eighteen hundred children, forty-eight per cent, or eight hundred and sixty-four were ten per cent or more below normal. Following this work the nutrition specialist from the university talked to the mothers about food for children.

In order to reach other mothers and convince them of the value of milk in the diet for children, the home demonstration agent acting under the direction of the specialist secured the cooperation of the teachers to carry out an experiment, using fifteen children who were decidedly underweight, for the purpose. The teachers agreed to see that each of the fifteen children should have a half-pint of milk at each recess, and to weigh and measure each child once a week.

The agent also found a dairyman who would deliver the milk at school each school day, the children going to the home of the school nurse on Saturday and Sunday. A local newspaper explained the object of the demonstration and solicited funds to carry it out. This brought a contribution of \$50 from the Rotary Club and \$17 by private subscription.

The mothers of the children to be used must be seen and their sanction and cooperation secured for the project. This was done by the school nurse and home demonstration agent. The visits to the home gave insight into the home life and enabled them to understand conditions.

At the completion of the experiment which was carried on for six weeks, it was found that each child had gained from one-half to five pounds. A father who had said before the experiment was started that he was in favor of it, if it would make his little son fat, made a trip to school to report how pleased he was because his boy had gained four and a half pounds in spite of being sick a part of the time, during which period the milk was carried to him. A new class that purchase the milk used has been formed, and this boy's father gladly pays for milk used by the child.

The principal reports that the attendance was more regular and the work better; and that milk drinking has become quite popular, not only among the children but the teachers, too. The dairyman does a thriving business at the school.

RED CROSS ROLL CALL.

THE Fourth Annual Roll Call of the American Red Cross will be held from November 11, Armistice Day, to Thanksgiving Day, November 25. No specific sum is fixed to be raised within this period. The roll call is not a drive. Just as its name implies, it is the mustering of all who joined forces last year with the Greatest Mother in the World, in the common cause of humanity. Your name and your dollar, pledged again in her service, means that you will be among those recruited in the great health crusade of the Red Cross, the peace-time slogan of which is Public Health Service.

HOUSEHOLD HINTS.

The thin strips in the front of open-faced envelopes much used nowadays by business firms are excellent for mending torn places in sheet music or books.—Mrs. M. N.

Do not throw away the tops of old shoes. They make excellent interlinings for iron holders. Make the holders oval in shape, and both cover and lining the same size. Stitch them firmly around the edge by machine.—Mrs. J. J. O'C.



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Our Boys' and Girls' Page

Gogebic Boys and Girls Win Honors

WITH the organization of the peninsula. Considerable difficulty was found at the close in arranging for the association of Gogebic county in automobile trip to the experiment station for the boys, but their earnestness and their eager desire to attend and take part in the big contest so appealed to the county agent that he desired to take the boys in his car in preference to several of the farmers, who for a long time had planned to attend with him. Just before starting, it was found that the club president, Clarence Fredrickson, would be unable to attend because of an important position which he had recently accepted, so the three boys to go were Leonard Nylund, Carl Johnson and Luther Olson. The trip in itself was a great treat to the boys and of no little educational value as they were keenly observing of farm conditions along the entire route. Upon arriving at Chatham, they were taken in charge by the assistant state club leader, Mr. A. G. Kettunen. The encampment of one hundred boys on the banks of the beautiful river coursing through the experiment farm was thoroughly enjoyed by all the boys and was in itself well worth the work and trip. The huge bonfires at night and

At the time of the organization of the cow-testing association in this county by Mr. J. A. Waldron, live stock judging demonstrations were held in various communities. These boys have evinced their keen interest by attending all such meetings. About the middle of July, Mr. A. G. Kettunen, Assistant State Club Leader, urged that the boys form a live stock judging team to



Left to Right the Boys Are: Leonard Nylund, Luther Olsen, Carl Johnson.

compete with the boys' live stock judging teams at the Upper Peninsula Farmers' Round-up, held at Chatham, Michigan, August 12. The original intention was that a judging team would be trained for the contest out of which three would be chosen to represent them at the round-up. Clarence Fredrickson, the president of the organization, Luther Olson, vice-president, Leonard Nylund, secretary, and Onnie Kangas, treasurer, started training under the direction of the county agent. About this time, unfortunately, an injury to one of the ambitious boys, Onnie Kangas, prevented his continuing in training, so two other boys, Carl Johnson and Walter Johnson attended the training school which was held on various farms throughout the county. Most of their time was spent in judging Guernsey and Holstein cattle. The boys met on the farms of Henry Nylund, Charles J. Olson, of Ironwood township, and L. J. Anderson, of Bessemer township. Some attention was given to the judging of sheep and hogs. Keen interest was manifested by the boys for the contest at the round-up at Chatham. The boys felt sure from time to time of their ability as judges and were becoming more eager daily to pit their combined judgment against that of the club teams of the upper

the stories told around them by the club leaders will not soon be forgotten. The climax of it all came on the last day of their stay at the experiment farm, when the boys took part in the big contest for which they had prepared. Three groups of boys judged alternately the cattle, sheep and hogs, and when, in the afternoon it was announced by Superintendent D. L. McMillan at the public speaking stand in the grove, that the boys of Gogebic county had won out over the club boys of nine other counties competing in the contest, they were called on the platform in order that the assembled farmers might see the winners, their joy was unbounded.

In addition to having thus highly honored themselves and their county, one of the boys, Carl Johnson, for scoring the highest number of points in the entire live stock judging contest, received as his prize a pure-bred Holstein heifer, the great-granddaughter of Duchess Skylark Ormsby, one of the highest producing cows of her breed. The boys are jubilant over their victory and their interest in producing better stock upon the home farms is doubly increased.

Upon leaving for Detroit, the boys were joined by Fred Olson, of Bessemer, another club boy who had gained

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Reference First Nat'l Bank, Marquette, Mich.
BERGMAN - DAVIS CO. FURS
130 Spring St. Marquette, Mich.

POULTRY

BARRED ROCKS

Cockerels, Pullets, April hatched, get Norman's superior strain direct. Catalogue 25c. Circular free. **NORMAN POULTRY PLANT,** Chatsworth, Ill.

Barred Plymouth Rock cockerels large birds from a prizewinning laying strain \$5.00 each. **J. A. BARNUM,** Union City, Mich.

Barred Rocks egg contest winners, eggs from strain with records to 230 a year. \$2.00 per setting prepaid by P. P. Circular free. **FRED ASTLING,** Constantine, Mich.

BARRED ROCKS. Park's 200-egg strain cockerels which will produce fine layers next year. \$3 each. **R. G. KIRBY,** R. I. East Lansing, Mich.

Fowler's Buff Rocks Cockerels, hens and pullets. Write for prices. **R. B. FOWLER,** Hartford, Mich.

Whittaker's Red Cockerels

Both combs. Special discount on early orders. Write for Price List. **INTERLAKES FARM,** Box 39, Lawrence, Mich.

S. C. White Leghorns. Ferris 264 egg strain. Superior breeding cockerels only \$4 and \$5 each. Order now. **ALVAH H. STEGENGA,** Portland, Mich.

Additional Poultry Ads. on Page 619

Let the hair go with the hide



Specialists in tanning Horse, Cow, Calf or any kind of hide with hair or fur on it. We make robes, coats, caps, gloves, muffs, rugs, etc., to your order. You save money and we save your furs. Free catalog of stylish fur garments: Free instructions for handling furs. Fur garments and goods of all kinds repaired and made like new. We mount large and small game, birds and fish. Write today.

ROCHESTER FUR DRESSING CO.
655 WEST AVE.
ROCHESTER, N. Y.

LET US TAN YOUR HIDE.

Horse or Cow hide, Calf or other skins with hair or fur on, and make them into coats (for men and women), robes, rugs or gloves when so ordered. Your fur goods will cost you less than to buy them and be worth more.

Our illustrated catalog gives a lot of information. It tells how to take off and care for hides; how and when we pay the freight both ways; about our safe dyeing process on cow and horse hide, calf and other skins; about the fur goods and game trophies we sell, taxidermy, etc.

Then we have recently got out another we call our **Fashion Book**, wholly devoted to fashion plates of muffs, neckwear and other fine fur garments, with prices; also fur garments remodeled and repaired.

You can have either book by sending your correct address naming which, or both books if you need both. Address **The Crosby Frisier Fur Company,** 571 Lyell Ave., Rochester, N. Y.

Learn to Grade Furs!

Write today for our **Free Book** which tells how. Full instructions in **Fur Grading** told in plain and simple language that all can understand. Study our "Trappers Manual"—it will teach you how to tell if you are getting a square deal in the grading of your furs, the only book on fur grading ever published. Free to Trappers. Also "Fur Facts" and Trappers' Supply catalogue. Get full information about our "Smoke Pump," the wonder invention for trappers.

A card or letter brings all this information FREE. Write today.

ABRAHAM FUR COMPANY
213 N. Main Street St. Louis, Mo.

a free trip to the state fair because of his scholarship in agricultural matters. There boys from five districts in the state of Michigan assembled to engage in the contest. Numbers were given, no names being known. The live stock to be judged were Holsteins, Short-horns, Duroc hogs and Shropshire sheep. Carl Johnson, of the Gogebic County Live Stock Judging Team, was high man with six hundred and three points to his credit. For this splendid achievement, Mr. Johnson receives a free trip to the International Live Stock Show to be held in Chicago November 27 to December 4.

Starting with Pure-bred Stock

By Walter E. Ball, One of the Michigan Boys Who Won a Trip to the National Dairy Show at Chicago.

MANY young people are starting with pure-bred live stock today. The greater number of the young people get their start through the aid of live stock clubs, backed by banks of the vicinity.

Some young people are starting with pure-breds without the aid of clubs, but where there are no clubs the majority of young people start with grade animals.

A club in these neighborhoods would start the young breeders with profitable pure-breds instead of unprofitable grades.

The grade animals more often prove money-losers instead of profitable individuals. The cost of pure-breds often makes the beginner wait longer than he would if grades were bought. But which is better: to start with a grade dairy cow costing \$75, and who barely pays her way, or a pure-bred costing \$400 and making a net profit each year of from \$75 to \$200; or to start with a grade sow whose litter must be sold on the market at grade prices and whose feed costs more than their value, or a pure-bred whose pigs can be sold as breeding stock at weaning time at a large profit, or fed for the market with a profitable gain.

The young breeder who started with the \$400 pure-bred can have a very profitable herd built up in a few years, while the boy starting with the \$75 grade has a herd whose loss equals the gain.

With pure-breds improvement in the herd can be made by keeping only the most profitable animals of most desirable form or conformation. With pure-breds the young breeder can work toward the ideals shown by the animals, of his respective breed, that are the leading animals in the show ring and who have the best records of production.

The young breeder who has the grades can also build up his herd but he can never reach the standards possessed by the pure-breds who have been improved since the starting of the breed.

The young breeder who owns the pure-breds will join the association of his respective breed. He will there come in contact with his fellow breeders. There will be discussions of live stock questions, and many hints and suggestions will be given. He will likely look over the herds of his fellow-breeders and find out how the other fellow does things.

And in cooperation with his fellow breeders he will become more widely known and will have a better sale for his surplus stock. If he shows his best stock in the local or state fair he will come to be known as one of the enterprising men of the country, who devotes his time to the profitable side of agriculture and who has advanced views on farming.

Pure-breds cost more on the start, but if one is a good caretaker, and does his best for the bettering of his breed, he will be ahead of the fellow who owns grades in money, enterprise, and advanced methods of farming.

Join The Champion Silo 2000 CLUB

Bankers Help Farmers Get Silos

It's been a long, hard pull, but the result was worth the effort because progressive, clear-thinking, far-seeing bankers are now thoroughly convinced that silos are a means of

**Greater Farm Prosperity
Increased Milk and Beef Production
Lowest Possible Feeding Cost
Bigger Farm Profits**

Being convinced, they are urging farmers to get silos. Our banker friends—the real live wires—go one better. They not only advise, but actually help farmers get silos.

They said to us, "Your Champion Silo is without doubt the biggest silo value in the world for the money. Now, pick 200 farmers, form them into a club and we will help them get Champion Silos."

"Make them the lowest possible price—give them your easiest terms and we will carry them. We will finance the feeding operations of these 200 farmers for a year or more—do their silos will practically pay for themselves without straining their bank accounts or affecting their credit."

The club is being formed and you are invited to join—it's the fairest, squarest, easiest silo proposition ever offered.

To get in—means act quickly. Time is short and membership is limited to 200.

**SAVE \$100
NO Cash-NO Deposit**

You Get the Benefit of the Lowest Prices

Each and every member of the 200 club gets lowest possible prices, also a written contract that, if any further reductions of our prices are made between now and September 1, 1921, all members get the benefit of such reductions.

AGENTS WANTED

If you have any spare time and your territory is open we have a good proposition to make you selling Champion Silos, the most practical, most economical, easiest and best selling silo on the market. Write us today.

THE E. W. ROSS CO.
Box 214
Springfield, Ohio



The Permanent Silo Built the New Way

Different from all others—the cheapest, most satisfactory permanent silo on the market. One hundred per cent right in construction and improvements, and 100 per cent right for keeping ensilage without waste from freezing or rotting.

Special construction features not found on any other—such as new foundation construction, special interlocking anchoring system fastened into silo foundation, heavy steel door-frame, patented latch and ladder and many other improvements put Champion Silo ahead of all. The one absolutely permanent, thoroughly practical, positively inexpensive silo that meets all requirements, and sells at a price far below what you would pay for the so-called permanent types.

Feeding Reports

The Silo Buyer's Guide

Get These FREE

Cut out and mail coupon below and we'll send you free without obligation—Champion Silo Catalog, Blue Prints of new construction, also feeding reports, telling how prominent feeders make money regardless of feed and cattle prices. Will also send application to club, with full particulars as to terms.

And Get Your Silo On The Easiest Terms Ever Made

NO Interest To PAY

These Big Features

First of all, this silo is constructed of the best, most satisfactory silo material known. It's made permanent by the latest process of oil filling—the heat and pressure method, which all authorities, also U. S. government experts, say makes it proof against wind or weather.

This material is then planted or rooted into the concrete foundation about four feet below surface of ground and the foundation rooted to the earth. This type of construction, used only on Champion Silos.

The next big feature is the interlocking anchoring system—a system of cables that criss-cross clear around the silo and fasten into concrete base and at top of silo through heavy channel steel inside hoop and heavy outside hoop.

These three features form one solid unit of construction from bottom of foundation to top and make a silo that can't blow over, can't crumble or crack, can't twist or creep. Never needs painting.

Mail This Coupon NOW

The E. W. Ross Co. 200 Club,
Box 214, Springfield, Ohio

Gentlemen: I expect to be in the market soon for a silo, size and would like to have full particulars about your 200 Club—how I can save money on a Champion Silo by joining it; also details as to terms and benefits, particularly as to Banker Plan of helping me get a silo.

Also send catalog—Blue Prints and Feeding Reports free of charge.

Name

Town

State R. F. D.

BREEDERS' DIRECTORY

Change of Copy or Cancellations must reach us Ten Days before date of publication

Wildwood Farms Angus

Effies Lass 238203 sold on May 6th for \$7100. She was sired by Black Monarch 3rd. We are offering for sale Editor of Wildwood 295059 a full brother in blood lines to Effies Lass also four more choice bulls which are old enough for service and sired also by the champion show and breeding bull Black Monarch 3rd.

Our herd is under State and Federal Supervision.

WILDWOOD FARMS ORION, MICHIGAN

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

WANTED to purchase one to ten High Grade Guernsey heifers that have freshened since September first or are to freshen before December 31st. Tuberculin tested and guaranteed free from contagious abortion. Address with price, breeding and milking detail to VILLAGE FARMS, Grass Lake, Mich.

For Sale Registered Guernsey bulls. May Rose breeding cheap if taken soon. Come or write. John Ebers R. 2 Holland, Michigan.

WOODCOTE ANGUS

Imported Herd Bulls
ELCHO OF HARVESTON (45547)
by Jason of Ballinalloch (38048)
EDGARDO OF DALMENEY (45501)
by Escort of Harveston (36008)
Woodcote Stock Farm, Ionia, Mich.

FOR SALE Registered Guernsey heifers, yearlings and calves.
E. A. BLACK, Route 3, Howard City, Mich.

Guernsey Bull Busto of Smallidge Farm, born Feb. 2nd, 1920. Sire Rennie of the Ridge, who's dam, Trixy of the Ridge holds first place in class BK in Michigan. Granddam Abbie of Riverside is champion of Mich. Dam May Kings Esalla of Eau Claire an A. R. cow.
E. J. SMALLIDGE, Eau Claire, Mich.

Pure bred Guernsey bulls from one to four weeks old. Registered \$30, not registered \$25. Orders shipped in rotation received. No excuse for scrub bulls.
WALTER PHIPPS FARM, 80 Alfred St. Detroit, Geo. E. Currie, Mgr.

GUERNSEYS—Federal Inspected. Headed by only son of Carrie of Hillhurst, exchampion of A. A. class, 5 bulls under 10 mos. 1st dandy who's dam in class D has given over 50 lbs. milk to females to spare.
G. W. & H. G. RAY, 4 mi. east of Albion, Mich.

GUERNSEY BULL CALVES whose sire's dam made 19,460.20 milk, 908.05 fat. Their mother's sire's dam made 15,109.10 milk, 778.30 fat.
T. V. HICKS, Battle Creek, Mich.

Registered Guernseys

a 6 months old bull (100% satisfaction for \$100. A nice heifer calf \$150.)
J. M. WILLIAMS, North Adams, Mich.

GUERNSEYS—REGISTERED BULL CALVES
Containing blood of world champions.
HICKS' GUERNSEY FARM, Saginaw, W.S. Mich

Guernsey Cows Three years old due in Dec. Sire had dam and several other ancestors in A. R. Four year old due in Jan. Chene Sequel Glenwood blood. Priced to sell.
A. G. WIGENT, Watervliet, Mich.

Facts in BLACK & WHITE

What a Purebred Holstein Sire will Do when Bred to Scrubs

Resume of eight years' experiment at Iowa Agricultural College:
"The average of all the records made by first generation heifers, sired by a Purebred Holstein Sire, shows an increase of 2314.5 lbs. milk or 71 per cent in milk, and 67.15 lbs. fat, or 42 per cent in fat, at an average age of 3 1/2 years over the record of their scrub dams at an average of 6 years."
Send for free illustrated booklets.

THE HOLSTEIN-FRIESIAN ASSOCIATION
164 Hudson Street
Brattleboro Vermont.

Long Distance HOLSTEINS, HERD-SIRE PRINCE ON A
Five dams av. 1198 lbs. butter and 2477 lbs. milk in 1 yr. Bulls all sold. State and Federal Supr.
A. FLEMING, Lake, Mich.

Reg. Holsteins For Sale. A few choice cows and heifers, 2s. 3w St. Johns.
J. R. HICKS, St. Johns, Mich.

Feed Every 3rd Hog FREE

Save feed and get your hogs ready for market in less time. Prove at our risk that you can save fully one third your feed, making it possible to feed every third hog free by feeding

Milkoline At 2c a Gallon

Milkoline has a base of pasteurized and sterilized, modified Buttermilk. It is guaranteed not to contain any sulphuric acid or anything of an injurious nature to hogs or poultry.



Aids Digestion: Thousands of the most successful hog raisers from New York to California during the past seven years have proved that Milkoline helps and assists digestion, tending to insure perfect assimilation of feed. It helps tone up the system so that hogs are less subject to disease, and practically insures gains of 2½ pounds per head per day.

University Tested: Professor W. B. Combs while Ass't. Prof. of Dairy Husbandry at Missouri University conducted a scientific test on Milkoline and found that Milkoline fed hogs put on more weight and showed 82.57% more profit than hogs not fed Milkoline. W. H. Graham a successful feeder of Middletown, Mo., said \$30 worth of Milkoline made him an extra profit of \$420. Lee Jackson of Wappingers Falls, N. Y., says Milkoline fixed up a bunch of shoats in finestyle and is great for brood sows.

Can't Spoil: Milkoline is guaranteed not to rot, sour or mould. It will keep indefinitely in any climate. Flies do not come near it. It is always uniform, and is guaranteed to make you money or it doesn't cost you anything.

Distributed by

SCHWARTZ BROS.,

2c a Gallon Milkoline comes in condensed form, and you do the diluting on your own farm. When fed as directed Milkoline mixture (one part Milkoline to 50 parts water or swill) costs only 2c a gallon. Full feeding directions free. It is shipped in convenient kegs and barrels which we supply free. The prices are as follows: 5 gal. \$7.50; 10 gal. \$12.50; 15 gal. \$16.50; 22 gal. \$22.00; 55 gal. \$49.50. It pays to buy in barrel lots because you save 60c a gal. over the 5 gal. quantities.

30-Day Guaranteed Trial. You are safe in ordering any quantity of Milkoline today. Feed one half the shipment to your hogs and poultry in a thirty day test, then if you aren't entirely satisfied return the unused part to us at our expense and we'll immediately refund every cent you paid us. We are so confident that you will find Milkoline the best money maker on the farm that the S. W. Boulevard Bank of Kansas City substantiates this offer. You are the sole judge. Send money order, or check, to us or our nearest dealer and we will ship immediately. Our booklet, "How to Hustle Heavy Hogs to Market" will be sent free on request—your name on a card will do.

Saginaw, Mich.

SIGNS OF THE TIMES.

ALL the price indexes, those peculiar thermometers used to measure the cost of living and general price trends have declined sharply during the last few months. Unfortunately a good many of them are based largely on wholesale prices or on raw materials so that they may give a distorted notion of what has actually taken place as in a declining market the consumer may not notice the effect for several months after prices to the producer have been cut. The British and Canadian indexes are declining as well as those in the United States so that the tendency is world-wide.

If misery loves company, then farmers who have been hard pressed to meet creditors as a result of price declines can find consolation in the fact that the number of business failures is gradually increasing. The September number was only slightly greater than for August but the liabilities involved increased over one hundred and fifty per cent over August and were only \$20,000,000 less than for the entire year of 1919.

Since wage reductions usually trail behind price declines, it is suggestive of our present business position that wages have been reduced in a few instances, mostly in cotton and woolen mills where it was a choice between mill shutdowns and accepting lower wages.

In the middle west reports show even greater declines in employment. This means a reversal of the trend of labor to the industrial centers which presently should relieve the farm labor problem.

HOW TO FEED STRAWS.

ALL the straws contain large quantities of nutrients, but on account of their unpalatableness and low digestibility, only a comparatively small proportion of the nutrients is of use to the animal. Many suggestions have been made for increasing the palatableness of straws and making them more digestible. The former object is sometimes achieved by chaffing the straw and mixing it with pulped or cut roots in the proportion of one part by weight of chaff to nine parts by weight of roots. The mixture should be allowed to stand for at least twelve hours before it is fed to stock. The straw absorbs water from the roots and the fermentation which results warms the mixture and softens the straw. No doubt that treatment makes the straw more palatable, but so far as it has been possible to ascertain, there is no evidence that its digestibility is increased. As the season advances the straw and the roots get dried, the chaff may be moistened with treacle (molasses) mixed with warm water and sprayed on with a watering can.

For horses getting all their bulky food in the form of straw it is a good practice to add seven pounds of linseed cake per horse per week. This is mashed in a tub of water. When the cake is thoroughly softened it is stirred up, and the liquid used to moisten the chaff. The mixture is readily eaten, and gives good results.

Another method is to sprinkle the chaff with salt at the rate of one bushel per ton, and to sandwich thin layers of cut green stuff amongst the chaff when it is put in the chaff house. Late cuttings of seeds, or almost any green stuff, or pulped roots, at the rate of one hundred pounds per ton of chaff will answer the purpose. The mixture should be well trodden down, and a slow fermentation will result. After standing some weeks or months the mixture develops a pleasant smell, and is readily eaten by any kind of stock.—M. M.

The Dairy Cow

is the commission house through which the dairyman markets his produce. His profits depend upon how cheaply his produce is handled.

The Jersey is noted for her economical production. She has demonstrated it in every competitive test.

Write Sec'y Henrickson, Shelby, Mich. for free Jersey literature.

Herefords Double Disturber bull at head of herd. Offer 5 2-yr. olds, bred, 9 yearling and 5 heifer calves. Fairfax breeding. Bulls any age. EARL C. McCARTY, Bad Axe, Mich.

The Wildwood Farm

Jersey Cattle, Majesty strain. Herd on State accredited list. B. of M. testing constantly done. Bulls for sale. ALVIN BALDEN, Phone 148-5, Capac, Mich.

BUTTER BRED JERSEY BULLS FOR SALE. CRYSTAL SPRING STOCK FARM, Silver Creek, Allegan County, Michigan.

JERSEY BULLS Ready for service. Raleigh, Oxford Lad, Majesty breeding. Meadowland Farm, Waterman & Waterman, Packard Rd., Ann Arbor, Mich.

Jerseys For Sale, Register of Merit stock of both sex. Smith and Parker, Howell, Michigan.

For Sale Jersey bull calves of Majesty breeding from good producing stock. Herd on Government "Accredited List." Write for price and pedigree to C. A. TAGGETT, R. 2, Fairgrove, Mich.

Lillie Farmstead Jerseys 2 R. of M. bull calves, one year old this fall. C. C. LILLIE, Coopersville, Mich.

Jersey Bulls from R. of M. dams \$75 to \$150 each. NOTTEN FARM, Grass Lake, Mich.

Bloomdale Shorthorns Why use scrubs when you can buy a registered bull for \$100. We have two at that price. Also some good females. CARR BROS. & CO., Bad Axe, Mich.

The Maple's Shorthorns Kirklevington Lad, by Imp. Hartford Welfare. In service bulls, for sale. J. V. WISE, Gobleville, Mich.

Milking SHORTHORNS. Clay bred bull calves. Herds under Federal Supervision. Davidson & Hall, Beaud & Beland, Tecumseh, Mich.

Shorthorns Scotch and Scotch Topped bulls and heifers priced right. Sultan Champion heads herd, one scotch two yr. old herd bull by Red Cumberland priced right. H. J. FLOWER & SON, Milo, Mich.

BIDWELL SHORTHORNS You Can Buy a bull that will put weights on your dairy calves—the difference will soon pay for the bull. Now selling good Scotch and Scotch-topped yearlings, reasonably priced. A roan, senior yearling, a Missie of Villager breeding, a herd bull prospect, Federal Test. **BIDWELL STOCK FARM,** Box D, Tecumseh, Michigan.

Richland Shorthorns Imp. Lorne, Imp. Newton champion and Sterling Supreme in Service. We offer for quick sale: Five Scotch Bulls, best of breeding. Three whites at \$1000 each. One roan at \$500, one red at \$400. No females for sale. Public sale Chicago Oct. 28th. C. H. PRESCOTT & SONS, Tawas, City, Mich.

Shorthorns Good Scotch bred bulls, cows and heifers, priced right. W. B. McQUILLAN, R. 7, Howell, Mich.

MEADOW Hills Shorthorns. Herd headed by Silver King, full brother of Lavender Sultan Purdue University's great sire. For sale females of all ages, a few young bulls. Geo. D. Doster, Doster, Mich.

For Sale Several young bulls, sired by Sultan's Standard. A few heifers and cows. Prices reasonable. Branch County Farm breeders of American Polled Shorthorn cattle. C. E. Burdick, Mgr., Coldwater, Mich.

Milking Shorthorns of best Bates breeding, bulls 6 to 8 mo. old for sale. E. H. KURTZ, Mason, Mich.

Milking Shorthorn 3 mos. heifer calf \$125 bred heifers and serviceable bulls at farmers' prices. Central Mich. Shorthorn Assn. Oscar Skinner Sec. Gowen, Mich.

Red Polled cattle for sale bulls from 4 to 18 mos. also cows with calves by side and heifer's. G. A. CALHOON, Bronson, Mich.

Reg. Red Polled cattle choice young bulls from 6 to 18 mo. old for sale. FRANK KEBLER, R. 1, Grand Ledge, Mich.

Reg. Red Polled Bull calves for sale, from 3 mos. to 1 year old, sired by Famous Charming grand son of Charming 1919 International Grand Champion. WESTBROOK BROS., Ionia, Mich.

HOGS

Registered Berkshires, Gilts, and Sows bred for April May and June farrow. A yearling Boar and a few younger Spring pigs. Chase Stock Farm, Marlette, Mich.

Fine Registered Berkshire pigs for sale, prolific, large litters. O. H. WHITNEY, Merrill, Mich.

NOTICE An Introduction

The Winwood Herd

on Nov. 1st will move their Herd of Pure Blood Holsteins to their new home, 1½ miles south of Rochester, Mich. and for the next 30 days we will sell what bull calves we have cheap as we will be unable to get our buildings complete before winter. So get busy if you want a son of Flint Maplecrest Boy at your own price.

JOHN H. WINN, (Inc.)

Roscommon, Michigan

OUR HERD SIRE Model King Segis Glista

By a 30 lb. son of Lakeside King Segis Alban De Kol. His dam Glista Fanelle 32.37 lbs. Her dam Glista Er. Nestling 35.86 lbs. His three nearest dams average over 33 lbs and his forty-six nearest tested relatives average over 30 lbs. of butter in seven days. Write for prices on his sons.

Grand River Stock Farms Cory J. Spencer, Owner Eaton Rapids, Mich.

The Traverse Herd

We have what you want in BULL CALVES, the large, fine growthy type, guaranteed right in every way. They are from high producing A. R. O. ancestors. Dam's records up to 30 lbs. Write for pedigrees and quotations, stating about age desired.

TRAVERSE CITY STATE HOSPITAL Traverse City, Mich.

Superior Holsteins

Bulls all sold but are now booking orders for our expected fall crop of

Bull Calves sired by my new herd bull, a grandson of **May Echo Sylvia**

My sire's two nearest dams average over 35 lbs. butter and 800 pounds milk in seven days.

A. W. COPLAND Birmingham, Mich. Herd under state and federal supervision

Holsteins of Quality

for sale. Heifers from 8 to 24 months old. All registered and sold subject to tuberculin test. E. A. HARDY, Rochester, Mich.

Holstein Friesian heifer and bull calves, purebred registered and high-grade. Price \$20 up. Splendid individuals and breeding. Write us your requirements. Browncroft Farms, McGraw, N. Y.

"Top Notch" HOLSTEINS

Buy a "milk" Bull of Quality from the Breeders of the world's only cow to produce 800 lbs. milk in 7 days, having an 800 lb. daughter.

Bull advertised last week was bought quickly by an Allegan County Dairyman.

Here's another "Top Notcher"—**King Colantha Genieve Pietertje,** No. 272177, Born Feb. 3, 1919.

Sire's dam a 30 lb. cow with a 31 lb. daughter, who has a 31 lb. 4 yr. old daughter.

Dam's record:—Butter 7 days 23.26 lbs. at 4 yrs. Dam's sire's three nearest dams average 30.87 lbs. butter in 7 days. Color: about half and half.

Price \$150.00 f. o. b. Howell.

McPherson Farms Co. Howell, Mich. All herds under U. S. Supervision.

Mr. Dairy Farmer, Mr. Holstein Breeder Meet KING FLINT

ALL THREE are working to a common purpose—to increase the production of Michigan Dairy herds.

We believe all three should work together. We feel sure that no Michigan bull has ever been better equipped for the work.

We have it on high authority that there are none better individually.

His three nearest dams each averaged to produce 100 lbs. butter and 2100 lbs. milk per month for a full lactation period with an average of 3.8% fat.

His dam is one of Michigan's greatest families—three full sisters that have produced over 30 lbs. butter in seven days, two of them producing over 700 lbs. milk, and two of them producing more than 1000 lbs. butter and 21000 lbs. milk in ten months.

His sire is the direct descendant of three generations of 30 lb. cows and two generations of 1200 lb. yearly record cows.

His first three sisters to enter yearly test will each produce more than 800 lbs. butter and 17000 lbs. milk as heifers.

Let King Flint Help You Improve Your Herd Through One Of His Sons

A son of this great young sire suited to head any herd in Michigan, grade or purebred, can be secured in Genesee County and we want them all to stay in Michigan.

Write us about your herd, tell us what you need and what you feel you can afford to pay and let us help you find just what you want in Genesee County, the center of Michigan's long distance dairy cattle.

Genrida Farm Walter T. Hill Davison, Mich. **Elmcrest Stock Farm** G. L. Spillane & Son Co. Clio, Mich.

A Good Note accepted in payment of finely bred registered Holstein bull calves. Quality of the best, and at prices within reach of all. Write. GEO. D. CLARKE, Vassar, Mich.

Hatch Herd Ypsilanti, Mich.

(In Government Accredited list) offers young registered sons from 34 lb. King Korndyke Sadie Vale bull for \$150 to \$250.

Cluny Stock Farm

Offers the best selection of young bulls from 8 to 12 months we ever raised; out of dams up to 29.76 for aged cows and over 26 lbs. for 2 yr. olds. Yearly records up to 24000 lbs. milk and 1000 lbs. butter. Sired by our Senior Herd Sire, Maplecrest Application Pontiac, whose dam made 35 lbs. butter in 7 days and 1344 lbs. butter and 23421 lbs. milk in a year, or by Dutchland Konigen Sir Rag Apple, our Junior Herd sire, whose dam is a 30 lb. 10 yr. old maternal sister of Dutchland Colantha Denver who made 36 lbs. in 7 days and 1315 lbs. butter and 25431 lbs. milk in 1 year. Several carry the blood of both these sires.

They are extra well grown, straight and right. One of these at the head of your herd is bound to increase production.

Send for pedigrees and prices.

R. Bruce McPherson, Howell, Mich.

\$75 gets 6 weeks old gdson of Maple Crest Korn Heng. and Flint Heng. Salina 27.09 butter 561.2 milk in 7 days. Calf's dam is my best untested cow. Terms. M. L. McLAULIN, Redford, Mich.

Reg. Holstein-Friesian Bulls ready for service and priced to sell. Light in color and richly bred. B. B. REAVEY, Akron, Mich.

HEREFORDS

We want 25 heifer calves from our herd bull **RENNER BULLION.** We will buy part of them from you, if you buy cows from us. We will give you a contract to buy back the heifer calves from the cows you buy from us, at \$150.00 each. Correspondence Solicited.

COLE & GARDNER, Hudson, Mich.

TUBERCULOSIS AND ROUP.

I have had trouble with my old hens dying off. They first seem to get lame and gradually fall away. Although they appear to eat, they lose weight, and in the end there seems to be nothing left of them. Others I have had to kill because their eyes seem to swell shut, resulting in blindness. What is the cause, and what remedy would you advise?

Ingham Co. B. F. G.

When hens become lame and lose weight it is a sign of tuberculosis. Make a post-mortem examination and see if the liver is covered with small greyish-white nodules. This is one of the sure signs of tuberculosis. When this disease enters a flock it pays to kill the birds and disinfect the house and yards. Then new stock can be obtained from a healthy flock. If there are many birds or the flock is very valuable it will pay to have a veterinarian inspect it and determine which of the carcasses are fit for food. Any bird suspected of having tuberculosis should be removed from the flock at once as the disease can spread rapidly and cannot be cured.

When hens' eyes swell shut it is usually roup and this disease is also contagious and so difficult to cure that the general advice is to kill and burn the bird as protection to the remainder of the flock. Roup is usually the result of a simple cold which has been neglected. It is possible to cure a cold by the use of carbolated vaseline or menthol salve. The commercial coal tar disinfectants and roup remedies are also useful in stopping a cold before the eyes swell shut and the bird becomes a hopeless case. It does not pay to try and cure birds ill with roup as it takes a long time. Birds that seem cured may carry the disease to healthy members of the flock.—K.

BLACKHEAD IN TURKEYS.

Can you tell me what to do for my turkeys? They get mopy and hang back, do not eat or drink like the well ones. Their droppings seem somewhat thin, white and yellow, the yellow being quite bright. I have lost two. I opened one and found the liver covered with what I suppose would have developed ulcers; some were all yellow, some looked just like yellow threads running through and the liver was covered with them, some clear yellow and on the side next the gall, a green color. The head gets quite dark. I lost some the same way last year and we thought it might have been caused by eating new corn. Last year they were sick some time before they died, but this year two that died were sick but a few days.

Jackson Co. A. C.

Blackhead is a disease of turkeys which has nearly ruined turkey raising in some sections. It is spread by the droppings of sick birds contaminating the food and water used by other birds and then the germs enter the ceca and the liver of the healthy birds and the degeneration begins. Infected birds lose their appetite, the wings droop and there is a greenish-yellow diarrhea. It usually occurs in turkeys from a month to a year old and the bird dies in from three to ten days after the first appearance of sickness. It is called blackhead because the head often turns purple, but there may be cases of the disease when this dark color of the head is not noted.

Sanitary measures on the range and in the roosting places help to keep down the disease. The feeding of plenty of sour milk helps to keep the intestines in healthful condition and thus more resistant. Tablets made as follows are sometimes recommended: Sodium sulphocarbonate, seven and a half grains; calcium sulphocarbonate, seven and a half grains; zinc sulphocarbonate, fifteen grains. One tablet is dissolved in a quart of water and mixed with the mash or given as drinking water.

Wise handling of the flock will increase the number of winter eggs.

You get More Milk or Your Money Back

No matter how much milk your cows are producing on their present ration—Larro-Feed must make them produce more—or your money back.

That is exactly what the Larro guarantee means to you—more milk or your money back.

The one way to put your dairy on a business basis is to find out exactly how much you are feeding each cow and exactly how much milk she is giving.

Weigh Your Feed—Weigh Your Milk

This has been our advice to dairymen for eleven years—it is the secret of the success of the men who feed Larro. They know just what they are doing and they have learned that it's not how much a feed costs but how much milk it produces that is important. That the feed which makes the most profits is the cheapest feed they can buy.

Write for names of Larro users in your neighborhood and the name of the dealer nearest you.

The Larro Milling Company
502 Larro Bldg., Detroit, Mich.

Larro-feed

Many Imitations Prove Its Superiority



Brookwater Duroc Jerseys

BOARS—Ready for Service

Big type, large bone and rugged with plenty of quality. This is your chance to buy high class individuals at reasonable prices.

Open Gilts

of choice breeding and right type. Panama Special, The Principal 4th, Orion Cherry King, and Great Orion families. Now is the time to buy before the demand takes all of the good ones.

Write us for Prices and Pedigrees. Mail orders a Specialty. Satisfaction guaranteed.

BROOK WATER FARM

ANN ARBOR, MICHIGAN

H. W. Mumford, Owner J. B. Andrews, Mgr.

BLUE HOGS.

Large, growthy and prolific. Everybody likes them. Write for booklet. Mention this paper. The Blue Hog Breeding Co., Wilmington, Mass.

DUROC JERSEY SWINE

for sale 2 yr. old herd boars, yearling boars and boar pigs, also bred sows and gilts. Write for pedigrees and prices. Come and see them. THOS. UNDERHILL & SON, Salem, Mich.



Spring pigs by Walt's Orion, First Sr. Yearling
Detroit, Jackson, Gd. Rapids and Saginaw 1919
Phillips Bros, Riga, Mich.

For Sale Duroc Jerseys of the big heavy boned type. CHAS. BRAY, Okemos, Mich.

Duroc sows and gilts bred to Walts King 29499 who has sired more 1st and 2nd prize pigs at the State Fair in last 2 years than any other Duroc boar. Everyone will be a money maker for the buyer. Cat. and price list. NEWTON BARNHART, St. Johns, Mich.

DUROC Boars Ready for service, sired by the following boars. Brookwater 'Demonstrator', The Principal 19th, Panama Special 4th, Walts King and Oakwood Gold Stamp. Prices \$40 and up. Come and make your selection early, mail orders carefully selected. Rush Bros., Oakwood Farm, Romeo, Mich.

DUROCS spring boars. A few gilts bred for Sept. farrow at bargain prices. W. C. TAYLOR, Milan, Mich.

Duroc Boars ready for service. Sired King number 169259 son of the \$10,000.00 Champion Jacks Orion King 2nd fall large type and heavy bone out of good sows. THE JENNINGS FARMS, Bailey, Mich.

DUROC PIGS Bred Sept. 12. Registered in buyer's name. Write for prices. FRED J. BROWN, Quincy, Mich.

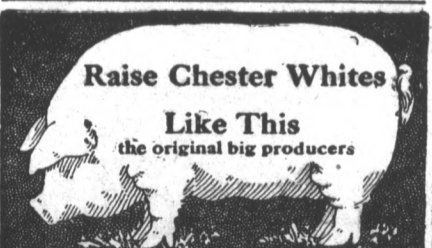
Duroc Jerseys Boars Boars of the large heavy boned type at reasonable prices. Write or better come and see. F. J. DRODT, Monroe, Mich.

DUROC JERSEYS Carey U. Edmonds, Hastings, Mich.

DUROC JERSEYS Boars and gilts by Mich. Pathfinder. E. D. HEYDENBERG, Wayland, Mich.

PLEASANT View Durocs. Choice spring boars and gilts. Come and see or get our price before buying. W. C. BURLINGAME & SON, Marshall, Mich.

\$12.00 for a Duroc-Jersey fall pig 6 weeks old, either sex. Express charges paid and registration papers free. M. A. C. Brookwater breeding. D. W. SUTHERLAND, Gd. Ledge, Mich.



I HAVE started thousands of breeders on the road to success. I can help you. I want to place one hog from my great herd in every community where I am not already represented by these fine early developers—ready for market at six months old. Write for my plan—'More Money from Hogs'. G. S. BENJAMIN, R. F. D. 10, Portland, Michigan.

Big Type Chester Whites Spring boars sired by 2nd. Hill's Big Bone, Col. Wykoff, Smith's Giant and Champion X Jr. and out of good big dams. Cholera immune and satisfaction guaranteed. Also fall pigs, either sex, not related. N. L. HILL, Jr., Mackinaw, Ill, Tazewell, Co.

SPECIAL prices on Fall, Winter and Spring boars during October. WEBER BROS., R. 2, Royal Oak, Mich

O.I.C's choice spring pigs either sex. Booking orders for fall pigs. We register free and ship O. O. D. A. J. BARKER & SON, Belmont, Mich.

Look for Miller Meadows L. T. P. C.'s at Marshall Calhoun Co. Fair, Sept. 21-25. CLYDE WEAVER, Ceresco, Mich.

O. I. C's Eight young boars and spring pigs for June shipment. CLOVER LEAF STOCK FARM, Monroe, Mich.

Central Mich. O. I. C. Swine Breeders Ass'n.

Hogs of all ages of popular blood lines. Every sale guaranteed by association.

DR. H. W. NOBLES, Sales Mgr. Coral, Mich.

For Sale O. I. C. Swine Strictly Big Type with good boars and gilts left of same type and blood lines, that won for use at Ohio and Michigan State Fairs. Priced very cheap. Write us before you buy. NEWMAN'S STOCK FARM, R. 1, MARLETTE, MICH.

O. I. C's One last fall boar wgt. 425, two last fall gilts, bred lots of spring pigs and this fall pigs either sex, good growthy stock 1/2 mile west of Depot. Oltz's, Phone 124. Otto B. Schulze, Nashville, Mich.

O. I. C's June and July boars and open gilts. Recorded and express paid for next 30 days each one a guaranteed feeder. F. C. BURGESS, R. 3, Mason, Mich.

O. I. C. Serviceable boar's. A few extra good boars at farmers' prices. H. W. MANN, Danville, Mich.

Big Type P. C. Bred gilts, Fall yearlings, prize winners, out 1100 lb. sire and mammoth sows from Iowa's greatest herds. E. J. Mathewson, Burr Oak, Mich.

O. I. C's 2 March boars \$40 each. Fall pigs by O. O. Big Calloway. O. J. THOMPSON, Rockford, Mich.

Large Type Poland China Boars. Ready for service. Fall pigs both sex. F. W. SMITH, R. 4, Mason, Mich.

Closing out sale of big type Poland China hogs, which represents the work of 25 years of constructive breeding. Everything goes, including our three great herd boars, "Mich. Buster" by "Giant Buster", "A Giant" "Butler's Big Bob." Two of the best yearling prospects in Michigan great length, big bone, Come get your pick. Jno. C. Butler, Portland, Mich.

POLAND CHINAS W. J. HAGELSHAW, Augusta, Mich.

Large type Poland China's spring boars ready to ship. Everything immune from Cholera. A. A. FELDKAMP, R. No. 2, Manchester, Mich.

DOUBLE DISPERSION SALE

at the
H. CHRIS. HANSEN FARM

2½ Miles Northwest of

LANSING, MICH.

at noon

THURSDAY, NOV. 24, 1920

41 Registered Holstein Cows and Heifers 41

Complete dispersion of the H. Chris Hansen Herd, including several daughters of Model Glista King Segis, a 35-lb. grandson of King Segis and 9 cows and heifers in calf to him.

This herd is under State and Federal Supervision and is clean.

Complete dispersion of the A. E. Chase Herd. Having lost his buildings by fire, Mr. A. E. Chase, St. Johns, Mich., will offer his entire herd at the Hansen Farm at the same time. This herd of 24 females is headed by a brother of the \$100,000 sire King Ona, until recently at the head of the D. D. Aitken herd, an excellent individual with the best of yearly backing. Six daughters of this sire and 14 in calf to him will be sold. This herd is fully accredited.

Sale Managed By

Michigan Holstein-Friesian Association,

H. W. Norton Jr., Field Sec'y.

Old State Block, Lansing, Mich.

H. C. POTTER

JAY HARWOOD

Breeders' Sale

**REGISTERED
HEREFORDS**

**Thursday, Nov. 18, 1920
CHARLOTTE, MICH.**

at Eaton County Fair Grounds, 1 P. M.

35 head of high class cattle. 20 cows with calves at foot. A few yearling and two year old bred heifers and 6 yearling bulls. This is an offering of good well bred cattle, just in pasture condition. The kind that will make good. We ask the breeders of Michigan to be with us and lend their support and cooperation.

Bulls in service:

Captain Stamway 733192

Don Fairfax 704378

Keep On 508019

Calves are by and cows and heifers bred to these good bulls.

H. C. Potter and Jay Harwood

Ask for Catalog

Poland Chinas

Spring boars and gilts from the Sr. Champion boar at the State Fair at Detroit this year also Grand Champion at West Mich. Fair at Grand Rapids weighing 1025 lbs.

If you want something that will give you satisfaction let us sell you a boar or gilt.

ALLEN BROS., Paw Paw, Mich.

L. S. P. C.

Everything sold previously ad. 25 spring pigs placed on the bargain counter for mo. of Sept. pairs or trios not akin.

H. O. SWARTZ, Schoolcraft, Mich.

Big Type Poland Chinas

Our herd is representative of the best in Big Types. Choice boars for sale now. Wesley Hile, R. 6, Ionia, Mich.

L. T. P. C. We have a large number of spring and summer pigs ready to ship sired by such boars as "Hart's Black Prince," "Leonard's Big Bob," the "Model Olansman" and "Prospect Yank" a great son of the \$40,000 Yankee. Write for prices or come and look them over if you are in the market. HART, FULCHER & CLINE, address F. T. HART, St. Louis, Mich.

Poland China Special pig sired by Hoyer's Giant 129275 and from our best sows are the best we ever offered. Write for particulars. DORUS HOVER, Akron, Mich.

6 boar pigs best I have raised in my 15 years of breeding sired by Big Bob Mastodon a son of the world's champion. Price \$50 and 50 fall pigs send orders now. C. E. GARNANT, Eaton Rapids, Mich.

I am offering Large Type Pol and China Sows, bred to F's Orange, at reasonable prices; also fall pigs. Write or call Clyde Fisher, St. Louis, Mich. R.R. 3.

My! Oh My! What An Opportunity

We are now offering a few choice big type Poland China Boars, from Big Smooth Jones, one of the breeds best sires, from dams by such noted sires as Grand Master, Hillcrest Wonder, Mastadon Wonder and Hillcrest Bob.

You can't get better breeding. Individually they will please you. Price \$50.00.

HILLCREST FARM, Kalamazoo, Mich.

Big Type Poland Chinas with quality, at reasonable prices. Pigs of both sex, and bred sows and gilts. G. A. BAUMGARDNER, R. 2, Middleville, Mich.

BARGAINS on Big type spring and summer Poland China Pigs also yearling Shorthorn bulls, bull and heifer calves. Robert Neve, Pierson, Mich.

Spring boars, fall pigs and tried sows, quality and breeding unexcelled. Guaranteed. Hampshire Square Deal Farm, R. 1, Three Rivers, Mich.

Edgewood Hampshires

All bred gilts sold. Now booking orders for gilts bred for fall farrow, and pigs for pig club work only. Depew Head, Edgewood Farm, Marion, Ohio.

HAMPSHIRE spring boars and fall pigs at a bargain, book your order now for bred gilts. JOHN W. SNYDER, R. 4, St. Johns, Mich.

SHEEP.

Delaine Rams B. & C. type, having size, quality, best of breeding, priced to sell. Write. S. H. SANDERS, R. 2, Ashtabula, O.

FOR SALE Registered Delaine Rams, also 35 ewes. GERRINGER & WRIGGLESWORTH, Cohoctah, Mich.

FOR SALE 10 Black Top Delaine Merino Rams registered. J. MEACHAM, R. 2, Millington, Mich.

WHITTUM FARM SHROPSHIRE

A fine lot of imported and home bred yearling ewes and rams for sale. A fine chance to start a new flock or improve the old one call at the farm or write for just what you want. C. H. WHITTUM, Eaton Rapids, Mich.

Hillcrest Shropshires

A nice lot of Ewes and Rams of all ages our flock is headed by McKerrow 3161 a son of Senator Bibby write or call on R. J. & C. A. WILLIAMS, Middleville, Mich.

FOR SALE 35 Registered Shropshire yearling rams and ram lambs. Also some choice Duroc Jersey boars and gilts. CLIFFORD MIDDLETON, Clayton, Mich.

Shropshires Am offering one choice two year ram and a few good yearlings. C. J. THOMPSON, Rockford, Mich.

SHROPSHIRE Yearling and Lamb rams sired by Imp. Berry No. 163 for sale. Also a few ewes. ARTHUR DODDS, Lapeer, Michigan

Shropshires sire imported Minton Ram Lambs \$30, some ewes, 2 yearling rams. DAN BOOHER, R. 4, Ewart, Mich.

Shropshire Rams lambs, yearlings and one 2 yrs. old, priced right. CARL TOPLIFF, Eaton Rapids, Mich.

Shropshires Yearling and rams, with quality, from imported stock. W. B. McQUILLAN, R. 7, Howell, Mich.

Shropshires yearling rams. Ewes of all ages, priced right. W. B. KELLY, Ypsilanti, Mich.

Shropshire Rams yearling or lambs for sale. ARMSTRONG BROS., R. 3, Fowlerville, Mich.

Wool-Mutton Shropshire Rams. Good strong individuals, royally bred, priced right. A. H. FOSTER, Allegan, Mich.

Registered Shropshire Rams and ewes all ages for sale. Well-wooled with size and quality. Priced to sell. H. F. Mouser, R. 6, Ithaca, Mich.

Maple Lawn Farm Shropshires, rams and ram lambs of choice breeding. Woolled from nose to toes. A. E. Bacon & Son, Sheridan, Mich.

Registered Shropshire Ewes and rams. Jno. Grieve, R. 3, Fowlerville, Mich.

Want a Sheep? Let American Hampshire Sheep Association send you dandy booklet with list of breeders. Write COMFORT A. TYLER, 22 Woodland Ave., Detroit, Mich.

For Sale. Registered Hampshire yearling rams and ram lambs. Yearlings weigh 175 lbs. price \$40.00. Lambs weigh 120 price \$30.00. OTTO C. KNOB, R.R. 3, Monroe, Mich.

Registered Hampshire Rams ready to ship. 40 yearlings, 20 ram lambs also a few good ewes. A. M. Welch & Sons, J. E. Welch, Manager, Ionia, Mich.

THE MICHIGAN CROP IMPROVEMENT ASSOCIATION.

Could you furnish me with information on the origin of the Michigan Crop Improvement Association, and state the methods being employed to improve the crops of the state?

Gratiot Co.

READER.

Realizing the need of protection against the indiscriminate sale of farm seeds, a number of farmers got together, a few years ago, and formed what is known as the Michigan Crop Improvement Association. This association grew from a few farmers to a membership of twelve hundred who are now actively engaged in growing improved and pedigreed grain for seed purposes.

Through the support of the United States Department of Agriculture, the state experiment station and the farmer members of the association, the future seed industry among Michigan farmers is guaranteed.

How the Association Operates.

Any farmer in the state can become a member of the association on the payment of a dollar, the amount of the annual dues. Members are kept informed regarding the best varieties of grain in the state and any new ones that might develop.

In order to correctly understand the workings of the association it is necessary that a few definitions be clearly understood. First, "pedigreed seed" is hereby defined as seed stock descended from an individual plant whose value has been demonstrated and approved by the Michigan Agricultural College. Second, "improved seed" for distribution through the association must be stock showing breeding and type due to a number of years of selection. Third, "registered seed" is pedigreed seed that has been inspected twice by authorized agents of the association. The first inspection—before harvest, while the grain is standing in the field; the second inspection is made on a peck sample, or on a sample of a size designated later submitted to the association as characteristic of all the grower sells. Fourth, "approved seed" is improved seed as defined above that has been twice inspected in the same manner as is necessary for registration of pedigreed seed.

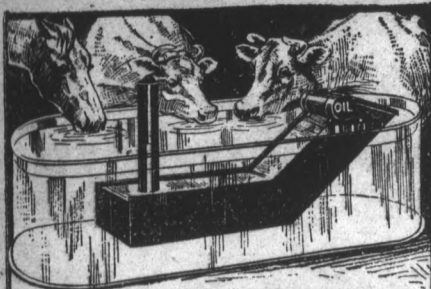
For example, now let us take a farmer who has purchased registered or approved seed through the association. This is planted. About three weeks previous to harvest he makes application to the secretary for field inspection. An inspector who has been thoroughly trained along this line is sent to the farmer. The inspection fee for each grain for any acreage up to twenty acres is eight dollars. Over twenty acres the fee is fifteen cents additional per acre.

The inspection is practical and at the same time scientific, in that it requires men who are thoroughly trained in plant diseases, insects and soil conditions.

In making a field inspection the field is carefully traveled over, the inspector being constantly on the alert for mixtures, diseases, weeds and insects, and if such are found the field is rejected for seed. In case all is satisfactory a certificate is issued which becomes the basis for final inspection and registration.

After threshing the farmer forwards a well-cleaned representative one peck sample to the secretary of the association for final inspection, which is technical and made in detail. The laboratories of the association are equipped with the latest approved grain and seed standardization apparatus. Analysis is made showing the per cent of moisture, germination, foreign material, light and small seeds, weight per bushel, texture, and its general quality and seed condition for which standards are established.

In case the farmer is not satisfied



Empire Oil-Burning Tank Heater

Greatest improvement ever made in tank heaters. Fits any tank. Burns from 14 to 16 hours on one gallon of kerosene. Any child can operate it with safety; no sparks, ashes or smoke. The heating chamber is entirely under water; no heat wasted. Guaranteed. Saves feed—pays for itself repeatedly.

Empire Non-Freezing Hog Waterer
Made of heavy galvanized iron—large capacity (70 gal.); drinking trough on outside where hogs can reach it; oil burner directly under trough—guaranteed not to freeze. Keeps water warm for 2c per day. An abundance of fresh, clean water at right temperature. Keeps hogs healthy—fatten faster on the same feed.



FARMER AGENTS
Special offer to farmers willing to show our Heater and Waterer to prospective buyers. Write at once for price and special offer.

Empire Tank Heater Co.
113 N. 7th Street
Washington Iowa



MINERAL HEAVE COMPOUND
In use over 50 years
CURES HEAVES

Booklet Free
\$3.25 Box guaranteed to give satisfaction or money back.
\$1.10 Box Sufficient for ordinary cases. (Includes War Tax.)
MINERAL HEAVE REMEDY CO., 463 Fourth Ave., Pittsburgh Pa

Farms and Farm Lands For Sale

Attention Farmers!

If you want to sell or exchange, your farm for Detroit city property, write to us for quick results.

J. F. Hintz Real Estate Co.,

786 Milwaukee Ave., E. Detroit, Michigan.
Phone Melrose 281.

Members of the "Detroit Board of Commerce" and "Detroit Real Estate Brokers Association."

For Sale

A First Class Cattle or Dairy Ranch

In Michigan's Clover Seed Belt. 1200 acres heavy clay soil. Hardwood removed 12 years ago. Heavily grassed to clover blue grass and timothy. There is no better land in the state. 6 miles from Millersburg and Onaway. Surrounded by cattle ranch and farms. \$16.50 an acre, 10% cash, 5% year 10 years, balance 12th year or 10% cash, balance of payments made with returns from (Alfalfa Seed Crops) from 30 acres, harvested yearly until land is paid for, interest 6%, also 3000 acre ranch proposition 11 miles from Millersburg, \$7.50 an acre. No cash necessary, if responsible purchaser will grow annually 40 acres of clover for seed, and apply proceeds of seed crop on purchase price until paid for, interest 6%.
JOHN G. KRAUTH, Millersburg, Mich.

275 Acres \$4500, With Horses, Cattle, Tools, Produce,

Splendid productive farm near big city; 200 acres machine-worked fields; immense crops hay, grain; remainder wire-fenced spring-watered pasture, valuable wood; 200 sugar maples, home-use fruit; 7-room house, 3 barns, 4 poultry houses, ice house, other buildings; personal reasons force sale, owner includes 4 horses, 10 cattle, feed pigs, machinery, tools, all for \$4,500, part cash, balance easy terms. Details page 21 Strout's Big New Illustrated Catalog Farm Bargains 33 States. Copy from: STROUT FARM AGENCY, 314 E.C. Ford Bldg., Detroit, Mich.

640 ACRES, two miles from Saginaw (seven-

ty-five thousand population). All clay subsoil, with mixed clay and black loam surface; good buildings and good roads; excellent shipping facilities and best markets for stock and produce, one-third first payment and balance as agreed on at 7 per cent annually. Other realty, city property or farming land in part or whole; exchange payments; two hundred dollars per acre; on cash basis \$15 per acre; possession on March 1, 1921 or sooner if required, also on sale \$40-50-100-150 acres enquire solicited. D. H. Rennie, Real Estate and Business Exchange, 323 1/2 Genesee Ave., Saginaw, Mich. Bell Phone 3534, Valley 690-B.

Ionia County Farm

140 acres of almost level clay loam land, nicely located on state reward road, close to town, church and school, 19 acres of wheat, good orchard, farm is all well fenced and there is an excellent set of buildings consisting of a 10 room house and one of the best 70 ft. full basement barns in the county, good silo, large hog house, sheep house, hen house, tool house and an excellent supply of water. Price is \$100 per acre, on liberal terms. SEND FOR OUR NEW FALL CATALOGUE OF FARMS.
FRED A. GODFREY, Lowell, Michigan

Comfort and Pleasure This Winter

CLEARWATER ON CLEARWATER HARBOR AND GULF OF MEXICO. Wonderful surroundings, surf bathing, mild climate, comfortable accommodations, hotels and cottages. Citrus groves, trucking, chickens and dairying. Good land, sufficient rain, luxuriant growth. Write Board of Trade, Clearwater, Fla.

Owner Obligated To Go To Another State

offers fully equipped 200 acre dairy farm, convenient to best schools, colleges and university divisible into two good homes at big sacrifice, if taken now, with or without cattle and equipped.
WILLIAM B. HATCH, Ypsilanti, Michigan

160 A. Stock farm good buildings, for sale,

small amount down, balance on contract or will rent for money rent. Can give possession soon.
C. F. BARKER, R. 4, Ohio, Michigan.

with the inspection he can make an appeal to the board of review, the personnel of which consists of two members of the Michigan Agricultural College Farm Crops Department and the secretary of the association whose duties are to arbitrate and decide upon all disputes and whose decisions are final.

Seed that passes both inspections is entered in the registry book and the grower is issued a certificate of registration and assigned a registry number. This can be done because the original source of the seed and its genuineness is known. The original stock can be traced to that first put out by the association. Because of the two rigid inspections the purity and quality is guaranteed. No seed company will do this. This protects the buyer who may confidently plant such seed and expect to harvest a crop of similar type and quality, which is again eligible for inspection and registration.

The growth of the association is shown by the following figures: In 1918 there were four hundred thousand acres of rosen rye harvested. In 1919 this increased to five hundred thousand, and this year it is estimated that over six hundred thousand has been harvested.

The following is a list of the registered seed which the members are growing: Wolverine, Worthy, College Wonder and College Success oats; Wisconsin Pedigree and Michigan two-row barley, Michigan Black Barbless barley, and Robust bean. The approved seed consists of corn and Early Wonder beans. During the last few years some of the above mentioned varieties have been shipped into thirty of the states. In nearly every state they have proven superior to the ones formerly grown. A. W. J.

Veterinary.

CONDUCTED BY DR. W. C. FAIR.

Advice through this column is given free to our subscribers. Letters should state fully the history and symptoms of each case and give name and address of the writer. Initials only are published. When a reply by mail is requested the service becomes private practice and \$1 must be enclosed.

Irritation of Bladder.—I have a seven-year-old mare that is thin; when working she is inclined to urinate too often, but so far as I can tell she is healthy. A. W., Pinconning, Mich.—Give her a tablespoonful of baking soda at a dose in feed three times a day. Change her feed.

Acute Indigestion.—For the past three months my horse has had sick spells. Our local veterinary treated him for heart trouble, but his medicine failed to do him much good. He will gradually gain in flesh for a week or two, then run down. J. H., St. Clair, Mich.—Give half a dram of ground nuxvomica, a teaspoonful of salt and a tablespoonful of ground gentian in feed twice daily. His bowels should be kept open, besides he should have daily exercise.

Irregular Distemper—Has Abscess.—Last April my six-year-old mare bruised her breast against manger, causing an abscess which our local veterinary opened. Since then some five abscesses have formed and been opened, but none of them are yet healed. Liquid injected into the upper one will run through to lower. Our veterinary called the ailment distemper. E. S., Mayville, Mich.—Enough cutting should be done to afford proper drainage, then occasionally inject one part iodine and twenty parts water. Also inject one part lysol and thirty parts water twice daily. Give two drams of Fowler's solution at dose in drinking water three times a day.

Recurrent Ophthalmia.—Have a bay mare eleven years old that seemingly goes blind every four or five weeks. After the eyes have been sore a few days they clear and vision seems to return. Is there any help for her? F. E. F., Burlington, Mich.—The best results from treatment you can hope for is a short postponement of loss of vision. A bright light irritates a sore eye, constipation is another exciting cause; remove them and it will help her. She is incurable.

40 DUROC JERSEYS 40

Will be sold at Farm

Thursday, November 18th, 1920
Newton Barnhart, St. Johns, Mich.

This list includes males and females by Walt's King, one of the good sons of Walt's Col.

A few sows bred to Walt's King and Walt's Col. 7th the 1st Senior pig at Michigan State Fair.

Pigs and sows by Orion's Fancy King the biggest pig of his age ever shown at Chicago Fat Stock Show.

Walt's Col. 7th, the undefeated under-a-year boar is also listed in sale.

Also some of the get of Oakland's Jack Orion, a National Swine Show winner. Col.'s Orion King 4th, Col. Joe Orion, Orion's Fancy King, Principal Orion and other famous sires will be sold.

A few of the gilts sold will be given breeding privileges to Walt's King.

Everything sold is guaranteed and any animal purchased through fieldmen will be guaranteed to please the purchaser just the same as if bought by the person for whom the purchase is made.

The yearling and under a year show sows of 1920 will be sold.

Newton Barnhart, St. Johns, Mich.
W. M. Kelly for The Michigan Farmer

Big Type Poland Chinas
YOUNG BROS., NILES, MICH.

Will sell 60 head of gilts, fall yearlings and tried sows.

MONDAY, NOV. 15th
Auctioneers Cols. Flesher and Foster

O. I. C. BOARS

Choice individuals; shipped to you c. o. d. express paid and guaranteed right or your money refunded. All stock registered in buyer's name.
J. CARL JEWETT, Mason, Mich.

FOR SALE 170 acre farm from Farmville, Virginia. All fenced with barbed wire, about one hundred acres open balance in first class timber. Two good dwelling houses just rebuilt and newly painted. Two large tobacco barns and many other small buildings and plenty of good water. Two main highways leading to the farm. Fruits of various kinds. Land is level or just a little rolling is now being worked on shares. The past year it has raised a large crop of first class tobacco, corn, sorghum and vegetables of every kind. This farm will pay for itself in two years and the climate is the best in the world. Two miles from high school public school and church and Lady's State Normal School. Address J. B. BLACKBURN, 722 Main, Buffalo, N. Y.

Great Bargain, 160 A. good soil, good Highway and electric line between Kalamazoo and Battle Creek; splendid surroundings, 1 mi. to market and high school. A money maker and splendid chance for speculation. Easy terms. Don't wait. Owner, Oscar E. Burnham, 507 Bank Bldg., Kalamazoo, Mich.

BARGAIN for quick sale. 180 A. some timber, spring brook, 1/2 m. Hastings, 60 ft. tr. line, fine new modern 8r. bungalow bath, running water, shady lawn, good barn, other farm bldgs., also fine 80 A. with 19 A. timber near by, equipment desired. Write WILL TREGO, R. 3, Hastings, Mich.

160 Acres near Flint, very best soil good buildings, terms, act quick; other bargains. ADVANCE REALTY, 114 Paterson Bldg., Flint, Mich.

For Sale Grain, Dairy and Fruit farms at bargain prices. Market at your door, one hour from Detroit the heart of the country. Write J. W. SALLIARD, Romeo, Mich.

HOGS
Michigan Farm Durocs. Service boars and open gilts for sale at \$40 and \$50. These are real hogs. Satisfaction guaranteed. O. F. FOSTER, Mgr., Pavilion, Mich

Duroc Jerseys

2 jr. yearling boars sire Long Wonder, Jr. Champion at the Minn. State Fair in 1917. 1 jr. yearling sir Giant by Giant Invincible one 8r. yearling by Panama Special all perfect individuals and weigh over 600 lbs. We only have 2 spring boars left.
CHASLEN FARMS, Northville, Mich.

Write Me at once I have just what you want heavy bone registered Duroc Jersey boars ready for service.
W. H. MAYES, L. B. 505, Durand, Mich.

Duroc Jerseys, of the right type, good blood and delivered for \$50. Guaranteed to suit you. W. E. Bartley, Alma, Mich.

SHEEP

Reg. Hampshire Down ram lambs, one registered Berkshire pig. M. G. Mosher & Sons, Osseo, Mich.

OXFORD RAM choice yearling Reg. and delivered for \$50.
O. E. BARKER, R. 1, Belmont, Mich.

For Sale Oxford ram lambs registered and delivered \$25.00. Guaranteed.
GEO. T. ABBOTT, Palm, Mich.

OXFORDS Rams, all ages \$20.00 to \$25.00 ewes cheaper breeding the best.
O. M. YORK, Millington, Mich.

HORSES

Percheron Stallions and mares at reasonable prices; inspection invited.
F. L. KING & SON, Chartiotta, Mich



GRAIN QUOTATIONS

November 10, 1920.

Wheat.

Detroit.—Cash No. 2 red \$1.97; December \$1.91; March \$1.87; No. 2 white and No. 2 mixed \$1.95.

Chicago.—No. 2 hard \$1.88½; December \$1.77; March \$1.75.

Corn.

Detroit.—Cash No. 2 mixed 93c; No. 2 yellow 98c.

Chicago.—No. 2 mixed 88@89½c; No. 2 yellow 90@91¼c.

Oats.

Detroit.—Cash No. 2 white 56c; No. 3 white 54½c; No. 4 white 52½c.

Chicago.—No. 2 white 52@54¼c; No. 3 white 50½@52¼c.

Beans.

Detroit.—Immediate and prompt are steady at \$4.65 per cwt.

Chicago.—Market easy. Hand-picked beans choice to fancy \$4.75@5; red kidney beans \$9.25@10 per cwt.

New York.—Market continues dull. Choice pea \$6; do medium \$6.

Rye.

Detroit.—Cash No. 2 rye \$1.60.

Seeds.

Detroit.—Prime red clover \$12.75; December \$13.10; alsike \$17; timothy \$3.40.

Toledo.—Prime cash \$12.85; December \$13; alsike \$17; timothy \$3.40.

WHEAT

While cash corn prices have averaged higher the past week wheat has worked to a lower level, the keen competition of Canadian grain and a sensational break in continental foreign exchange being the main influences. Canadian wheat which inspects dark No. 1 northern spring sold at Chicago the past week at 13c over the Chicago December against 23c over several weeks ago, showing a decline of 10c relative to the futures. This has forced a lower level for domestic springs, and has also affected the hard winter. Red winter, however, is very scarce, as it was sold largely for export, and has gained on the December selling as high as 21c over, with very limited arrivals at all markets. The foreign financial situation has far more bearing on the wheat situation at the present time than the statistical. The latter is undoubtedly sensationally strong, but with lire quoted at around three cents and francs at six cents, against a normal for both of 19.3c and marks going begging at 1¼c against a normal of 23.5c the purchasing power of Europe has been so greatly reduced that it is rather surprising that the demand has held up well as it has. The Australian crop is now estimated at 131,000,000 bushels, suggesting a surplus of 90,000,000 bushels. The Canadian crop has been increased 4,000,000 bushels by the last provisional estimate. The Central European and Balkan countries harvested 8,000,000 bushels less than last year. Demand from the domestic mills is still slack.

CORN

A corn crop of around 3,200,000,000 bushels seems to have been secured this year and reports indicate that the quality is the best known. The carry-over of old grain is around 100,000,000 bushels so that it seems safe to figure on a total supply of around 3,300,000,000 bushels, the largest known. From a comparison with previous year this makes a most depressing showing, although when it is considered that there is by far more cattle and hogs on farms this year than in 1912, when around 3,200,000,000 bushels were consumed, it is not as bearish as generally believed, especially as the total live stock is estimated at 15,000,000 head greater. The industrial demand for cash corn is still very slow but the eastern distributing trade has picked up considerably, and yellow corn was recently around 5@6c over the December has advanced to around 11c over. Receipts have become extremely light. The country is showing no disposition to sell old or new corn to arrive, the price being regarded as too low. Feeding operations are increasing rapidly as it is figured that on the present price of hogs corn for feeding is worth \$1.25 per bushel. Prices have been gradually declining.

SEEDS

Red clover seed and alsike prices were easier again last week, influenced by larger receipts and the decline in grains. The belief is rather prevalent that they have been deflated enough. Canada is reported to have a large crop of timothy seed, but her crop of the clover seeds is below normal. Prices at the week's close were: Toledo—1919 prime red clover \$13.20 per bushel; 1920 prime \$13.85; 1919 prime timothy \$3.30; 1920 prime \$3.40; 1919 prime alsike \$17.15; 1920 prime alsike \$17.30.

FEEDS

The usual fall demand for feedstuffs is showing up and prices are firmer. Millfeed stocks are light, but the prospective supply is probably ample for all requirements. Production is increasing slightly. Linseed and cottonseed meal have been rather high compared with prices of farm grains and the former declined \$3 at Minneapolis. No marked change either way from the present price level of millfeeds is indicated. Latest quotations per ton (100-lb bags) in car lots are: Detroit—Bran \$40; standard middlings \$43; flour middlings \$53; coarse corn meal \$46; cracked corn \$47; chop \$41.

BEANS

From a high price of \$8 reached last February and March bean prices receded to the low level of \$4.50 reached a few weeks ago, since which time values have advanced about 10 or 15 cents each week. Price on November 6 was \$4.85 f. o. b. Michigan common shipping points. The usual September-October demand is not evident, buyers holding off. Colder weather has stimulated it to a slight extent.

HAY

The hay trade continues dull with little change in prices, light receipts offsetting the influence of the small demand. Unless the feed grains and other feedstuffs decline hay prices are unlikely to decline much further. Prices per ton in carlots were as follows: Chicago—No. 1 timothy \$29@32; standard and No. 1 light clover mixed \$28@29; No. 2 timothy and No. 1 clover mixed \$25@27; No. 3 timothy \$20

@23; sample hay \$18@24; clover \$20@28; No. 1 choice alfalfa \$28@32.

Detroit—No. 1 timothy at \$20@30; standard \$28@29; light mixed \$28@29; No. 2 timothy \$27@28; No. 1 mixed \$27@28; No. 1 clover \$27@28; rye straw \$14.50@15; wheat and oat straw \$13.50@14. Buffalo—Timothy No. 1 at \$36@37; No. 2 \$33@35.

POTATOES

Potato demand has been active and prices trended upward until near the close of the week when operators began to hold off. Chicago closed very weak at \$2@2.25 on Northern Whites, losing most of the advance. Other middlewestern consuming markets gained 10@25c till Friday's close, while eastern markets gained smaller amounts. Minnesota, Wisconsin and Michigan shipping points reached \$1.90 @2.10 per 100 lbs. f. o. b. sacked. Chicago prices are: Northern whites \$2 @2.25 per 100 lbs; Idaho Rurals \$2.40.

Cleveland.—Michigan round whites \$3.25@3.50 per 150-lb. sacks; New Jersey Giants \$2.50. Detroit—Michigan \$3@3.25 per 150-lb. sack.

BUTTER

The previous week's advance and firm market continued uninterruptedly throughout the past week. The output has fallen off rapidly since the recent bit of cold weather and hard frosts. The quality also improved slightly and resulted in less pressure on the market from undergrade stock. The shortage was apparent in receipts, size of shipments and reports from producing sections. The top scores were most scarce, but medium grades cleared and finally much of the poorest stock was moved. One shipment of New Zealand November 6 were: New York 64c; Chicago 64c; Boston 60c; Philadelphia 64c per pound.

WOOL

Wool market conditions have grown worse the past week. Prices quoted, though largely nominal, are slightly lower. The depression which has overwhelmed all branches of the textile trade has grown worse, the American Woolen Company, which resumed operations six or seven weeks ago with a 50 per cent personnel, announcing that

its mills would operate on a four-day-a-week working schedule. Retailers are unwilling to mark down their stocks to correspond with the new level of values, so that consumption is restricted. Australian sales have held firm, but Liverpool auctions on East Indian wools were languid. The republican landslide has encouraged hope of tariff protection, although several months must elapse before it could become effective.

EGGS AND POULTRY

Egg prices continue firm at a very high level. Prices to retailers at Chicago the past week were the highest they have ever been at this season of the year. Poultry markets were weak as supplies are in reasonable abundance.

BUCKWHEAT

Buckwheat prices continue at a low level, Chicago and Milwaukee both being quoted at \$2.25@2.50 per 100 lbs. The prices are unusually low compared with wheat. The market is under the bane of the present scanty buying era and will probably continue unsatisfactory for some time.

APPLES

There has been a somewhat better movement of fancy stock this week, but the supply of inferior stock is still heavy and is retarding the market. Only large Delicious and Jonathans appear to be holding their own in the box apple market. The market closed practically steady.

DETROIT CITY MARKET

Wholesale prices on city markets show apples selling at \$1.25@2.50 for firsts to fancy grades; cabbage 40@50c; dry onions \$1@1.10; potatoes at \$1.35@1.50; turnips \$1@2; celery at 25@75c per dozen. Eggs are scarce at 90c@\$1 per dozen.

STATE FARM BUREAU MARKET REPORT.

Seed prices are not showing any increased strength but on the whole have lost during the past week. Inquiries from farmers' organizations in other states denote a keen interest in Michigan seeds, and their belief that now is time to buy medium clover is beginning to move some with hulling far from completed. Statistics show 44,200 pounds of alsike imported during October as compared with 1,337,400 for October, 1919. Red clover importations are given at 12,900 pounds and 510,400 for same periods.

FEDERAL CROP REPORT.

A RECORD crop of corn, exceeding the previous largest crop by 75,000,000 bushels, was announced Monday by the department of agriculture in its preliminary estimate, placing production this year at 3,199,126,000 bushels and quality at 7.7 per cent above the average. A month ago the corn crop was forecast at 3,216,192,000 bushels, while last year's production was 2,917,450,000 bushels, of which 142,211,000 bushels, or 4.9 per cent of the crop, remained on the farms November 1 this year, Monday's report announced, compared with 69,835,000 bushels a year ago and 82,618,000 bushels, the average of the preceding five years.

This year's potato crop is put at 421,252,000 bushels, compared with 414,986,000 last month and 357,901,000 last year.

Apples promise a yield of 236,187,000 bushels, compared with 227,978,000 last month, and 147,457,000 last year.

Sugar beets will probably total 8,812,000 tons, compared with 8,970,000 last month and 6,421,000 last year.

COMING LIVE STOCK SALES.

Poland China.—November 15, Young Bros., Niles, Michigan.
Holsteins.—November 16, F. A. Beasore, Grand Ledge, Michigan.
Herefords.—November 18, Potter & Harwood, Charlotte, Michigan.
Duroc Jersey.—November 18, Newton Barnhart, St. Johns, Michigan.
Duroc Jersey.—November 23, Albert Ebersole, Plymouth, Michigan.
Holstein.—November 24, Chris Hansen Farm, Lansing, Michigan.

Live Stock Market Service

DETROIT

Cattle.

Canners steady; all others 25@40c lower.

Best heavy steers	.....	\$10.50@10.75
Best handy wt bu steers	.....	8.50@ 9.25
Mixed steers and heifers	.....	7.50@ 8.25
Handy light butchers	....	7.00@ 7.25
Light butchers	.....	5.00@ 6.25
Best cows	.....	7.00@ 7.50
Butcher cows	.....	6.00@ 6.25
Common cows	.....	4.00
Canners	.....	3.00@ 3.50
Choice bulls	.....	7.00@ 7.25
Bologna bulls	.....	6.00@ 6.50
Stock bulls	.....	5.00@ 6.00
Feeders	.....	7.00@ 9.00
Stockers	.....	5.00@ 7.50
Milkers and springers	...\$	65@ 110

Veal Calves.

Market steady.
Best \$16.00@16.50
Others 6.00@13.00
Market steady.

Hogs.

Mixed	.....	\$13.50
Pigs and yorkers	.....	13.75
Roughs	.....	12.00
Stags	.....	10.00

Sheep and Lambs.

Market steady.
Best lambs \$11.00@11.50
Fair lambs 9.00@10.25
Light to common 5.00@ 7.75
Fair to good sheep 5.00@ 6.00
Culls and common 2.00@ 3.00

CHICAGO

Hogs.

Estimated receipts today are 16,000; holdover 9,290. Market steady with yesterday's average. Bulk of sales at \$12.85@13.50; tops \$13.75; heavy 250 lbs up medium, good and choice at \$13 @13.60; medium 200 to 250 lbs medium, good and choice at \$13.25@13.70; light 150 to 200 lbs common, medium, good and choice at \$13@13.60; light lights 130 to 150 lbs common, medium, good and choice \$12.90@13.40; heavy

packing sows 250 lbs up smooth \$12.50 @12.85; packing sows 200 lbs up rough \$12@12.50; pigs 130 lbs down medium, good and choice \$12.50@13.50.

Cattle.

Estimated receipts today are 15,000. Good corn-fed steers strong to higher; other classes slow; calves and bulls lower. Beef steers, medium and heavy weight 1100 lbs up choice and prime \$15.75@17.50; do medium and good at \$10.50@15.85; do common at \$8.75@10.50; light weight 1100 lbs down good and choice \$13.25@17.25; do common and medium \$8@13.25; butcher cattle, heifers, common, medium, good and choice \$5@13; cows, common, medium, good and choice \$4.60@11.25; bulls, bologna and beef \$5.25@10; canners and cutters cows and heifers \$3.50@4.50; do canner steers \$4@6; veal calves light and handyweight medium, good and choice \$13@14.75; feeder steers, common, medium, good and choice at \$7.25@11.50; stocker steers, common, medium, good and choice \$5@9.25; do cows and heifers common, medium, good and choice \$4.75@7.50; western range cattle beef steers medium, good and choice \$9@13.50; do cows and heifers medium, good and choice \$5.75@ 9.75.

Sheep and Lambs.

Estimated receipts today are 24,000. Market slow and bidding lower. Lambs 84 lbs down medium, good, choice and prime \$10.75@12.50; do culls and common \$9@10.50; spring lambs, medium, good, choice and prime \$9@11; ewes, medium, good and choice \$5@6.50; do cull and common \$3@4.75; breeding ewes full mouths to yearlings at \$5.75 @8.25; yearling wethers, medium, good and choice \$12@13.

BUFFALO

This market sold hogs today (Wednesday) at \$14.65@14.75; lambs \$12.75 @13; calves up to \$19, while the cattle trade ruled steady.

COMMITTEE OF SEVENTEEN.

(Continued from page 596).
 ed that a year ago he stated in addresses given in all of the large cities in which his grain corporation maintained offices, that unless the United States entered into some kind of an association of nations which would seek to restore peace and stability to European conditions and assist the new nations there to establish their boundaries, that there would be unemployment in every large city in the United States and distress in the agricultural communities; a prophecy which has been abundantly fulfilled. He held out no hope that growers by collective action could obtain more than the supply and demand price.

Mr. Powell made a remarkable address covering the fundamental principles of cooperative organizations along with practical suggestions as to details. He emphasized the fact that there must be an economic need before a cooperative organization could succeed. Cooperation must be a religion with the member. "The children of the members of the California Fruit Growers' Exchange in saying their prayers, ask God to bless mamma, papa and the exchange." He emphasized the importance of the character of the board of directors that the growers and the public must have absolute confidence in them; that the methods of big business, such as the United States Steel Corporation or Standard Oil, should not be considered as a proper model for the grain growers. They must recognize the social and economic rights of the community. Recognition of these rights goes along with the legal privilege to market their products in a cooperative way.

The exchange of which he is a member merely attempts to obtain the supply and demand price, and Mr. Powell does not believe it possible to obtain a cost of production price. Lemons, for example, have been selling for five months under cost of production. Increases in cost of marketing such as those represented by freight, cannot be passed on to the consumer, since these make no difference whatever in the demand. On the other hand, it is a mistake for growers to sell collectively at too low a price, as someone else then absorbs the difference between this price and that which the consumer is willing to pay. In the organization of the exchange members sign up for a period of years, but many of these contracts provide for withdrawal upon one year's notice, as it is undesirable to try to retain a dissatisfied member. As a result of the work of the exchange the handling charge has been reduced to one and a half to two per cent, compared with a former charge of ten to fifteen per cent and a present charge of about seven per cent which private handlers demand.

Resolutions Adopted by the Committee of Seventeen.

The Farmers' Marketing Committee of Seventeen in executive session, discussed the fact drawn out in the public hearing that the grain exchanges of the country deny membership to cooperative companies. Although they do not recognize the grain exchanges as the best possible method of marketing grain, the members of the committee were unanimous in adopting the following resolution:

Whereas, the principal grain exchanges of the United States bar cooperative companies that distribute their profits in proportion to the volume of business handled, from participating in the buying and selling of farm products; and whereas, the same prevents the producers from collectively selling their own products thereby creating a monopoly in the hands of the traders; a situation which is not just and not in harmony with the spirit of American institutions.

Therefore, be it resolved, that we call upon the federal trade commission, the attorney-general or other public authority to take such steps as may be necessary to open the said markets to the membership of cooperative companies, unless the grain exchanges shall voluntarily do the same at once.

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Fertile Land at \$15 to \$30 an Acre.
 —land similar to that which through many years has yielded from 20 to 45 bushels of wheat to the acre. Hundreds of farmers in Western Canada have raised crops in a single season worth more than the whole cost of their land. With such crops come prosperity, independence, good homes, and all the comforts and conveniences which make for happy living.

Farm Gardens—Poultry—Dairying
 are sources of income second only to grain growing and stock raising. Good climate, good neighbors, churches, schools, rural telephone, etc., give you the opportunities of a new land with the conveniences of old settled districts.

For illustrated literature, maps, description of farm opportunities in Manitoba, Saskatchewan, and Alberta, reduced railway rates, etc., write Department of Immigration, Ottawa, Can., or

M. V. MacInnes,
 176 Jefferson Ave., Detroit, Mich.
 Canadian Government Agent.




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HAY

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For Sale Write Dr. W. Austin Ewalt, Mt. Clemens, Mich., for those beautifully marked Sable and White Scotch Collie Puppies; natural heelers from trained stock; pedigrees furnished. Will also buy thoroughbred Collie and Airedale puppies for training.

POULTRY 500 PULLETS

We are now offering 500 more fine S. C. White Leghorn Pullets five months old and about ready to lay. The first week in December the pullets will be six months old and can be laying well by that time. Eggs from these birds this winter will nearly pay for the birds. A few 4 mo. pullets also of the same stock. If interested write us at once for description as the pullets are to be sold immediately. We guarantee everything. Have our 1920 catalog? We still have 300 yearling White Leghorns for breeding at \$1.75 each. Cockerels We still have 75 fine Barred Rock Cockerels from our well bred Barred Rock Colony. Send for description.

STATE FARMS ASSOCIATION,
 Desk 1, Kalamazoo, Michigan

Cockerels and Hens: Leghorns, Minorcas, Reds, Rocks, Orpingtons, Wyandottes, Houdans. Tyrona Poultry Farm, Fenton, Mich.

Pine Hill Poultry Farm

For Sale, S. C. Mottled Ancona cockerels, S. C. White Leghorn cockerels, S. C. Black Minorca cockerels, White Faced Black Spanish cockerels. Save money by buying now.
 LAWRENCE LAHAIE, Cheboygan, Mich.

Rhode Island Whites

If you have ever said there is no money in raising poultry try the R. I. White, stock for sale, order ahead.
 H. H. JUMP, R. 5, Jackson, Mich.

Single Comb White Leghorns

Cockerels from our exhibition matings April hatched \$3.50 each. Four fine cock birds \$5.00 each. SUNNYBROOK POULTRY FARM, Hillsdale, Mich.

S. C. Black Minorca Cockerels, from pen headed by \$3. our \$50, 11 1/2 lb cock bird. These cockerels will be very large with quality. R. W. Mills, Saline, Mich.

Silver, Golden and White Wyandottes. A few good cockerels for sale at \$5.00 to \$15.00 each.
 C. W. BROWNING, R. 2, Portland, Mich.

White Chinese Geese,

White Pekin Ducks, R. O. Br. Leghorns. Order early.
 Mrs. CLAUDIA BETTS, Hillsdale, Mich.

TURKEYS:

Thoroughbred Bronze Toms for sale. Write Mrs. WM. TANTON, R. 1, Deckerville, Mich.

White Holland Turkeys White African Guineas 80 acres of them. Reference C. H. Burgess, Prof., Poultry Mich. Agri. College. Farm for sale. Alden Whitcomb, Byron Center, Mich.

Gray African Geese

fine stock \$4 each. ED. MILLS, Lakeview, Mich.

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\$44 No. 2 1/2 Junior—a light-running, easy-cleaning, close-skimming, durable, fully guaranteed separator. Skims 120 quarts per hour. We also make four other sizes up to our big 800 lb. capacity machine shown here—all sold at similar low prices and on our liberal terms of only \$2 down and a year to pay.

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Feed and water.

Feed costs money, and yet very few of our dairy cows are being starved for want of it.

It is common knowledge that the cow that does not get enough to eat does not produce as much milk as she could produce, nor produce as cheaply.

It should be common knowledge, too, that the cow that does not get enough water to drink produces too little milk.

Water costs practically nothing, and yet many, very, very many of our dairy cows thirst for want of it.

Milk is seven-eighths water.

In order for a cow to make milk most cheaply it stands to reason that she must be given plenty of water.

Thousands of dairymen have learned that they have been getting too little milk in the past because they gave their cows too little water.



Herded out twice a day to shiver through a drink of icy tank water

They have learned that when a cow has all the water she wants when she wants it at any hour of day or night, remarkable increases in milk yields follow.

Yet there is no magic about it.

It is simply the natural consequence of following out natural laws. Just as too little feed meant too little milk — lack of enough water means less milk and a higher production cost.

Proven By Milk Records

An investigation was made in 28 herds (759 cows) where milk records were kept.

One herd showed an increase of from 5 up to as high as 10 lbs. per cow, per day, just as a result of giving the cows all the water they wanted when they wanted it.

Four herds reported an average increase of 4 lbs. per cow, per day; three stated 3 lbs.; five showed 2 lbs., three 1½ lbs.; one ¾ lbs.; one reported an increase in milk yield valued at \$8.56 per cow, per year; one averaged \$5; one \$10; one received 3% increase; one 8%; two 10%; one 12½%; one 20%; one 33⅓%; and only one herd out of the 28 found that the increase was "not much." An average increase per cow per day of 2.45 lbs.

And now you ask yourself the question, "Can I afford James Cups in my barn?" "Would it not be better to wait until next year?"

Neither of the questions has anything to do with the matter.

The real question is "Can you afford to be without James Cups?"

You Lose By Waiting

The plain fact is that if next year some one were to make you a gift of the James cups, you would lose money by waiting.

Two pounds milk per cow per day, for the 200 days the cows are in the barn, means 400 lbs. of milk, which at \$3 per cwt. is a total of \$12 for the season.

In these days when feed and other costs are high, can you afford to neglect this extra profit?

James cups will pay for themselves twice over during the season. Can you afford to be without them?

James cups will save much time and work — investigation shows that the labor saving is \$2.50 at least each year.

Can you afford to continue the frost biting work of chopping open the ice bound tank out of doors?

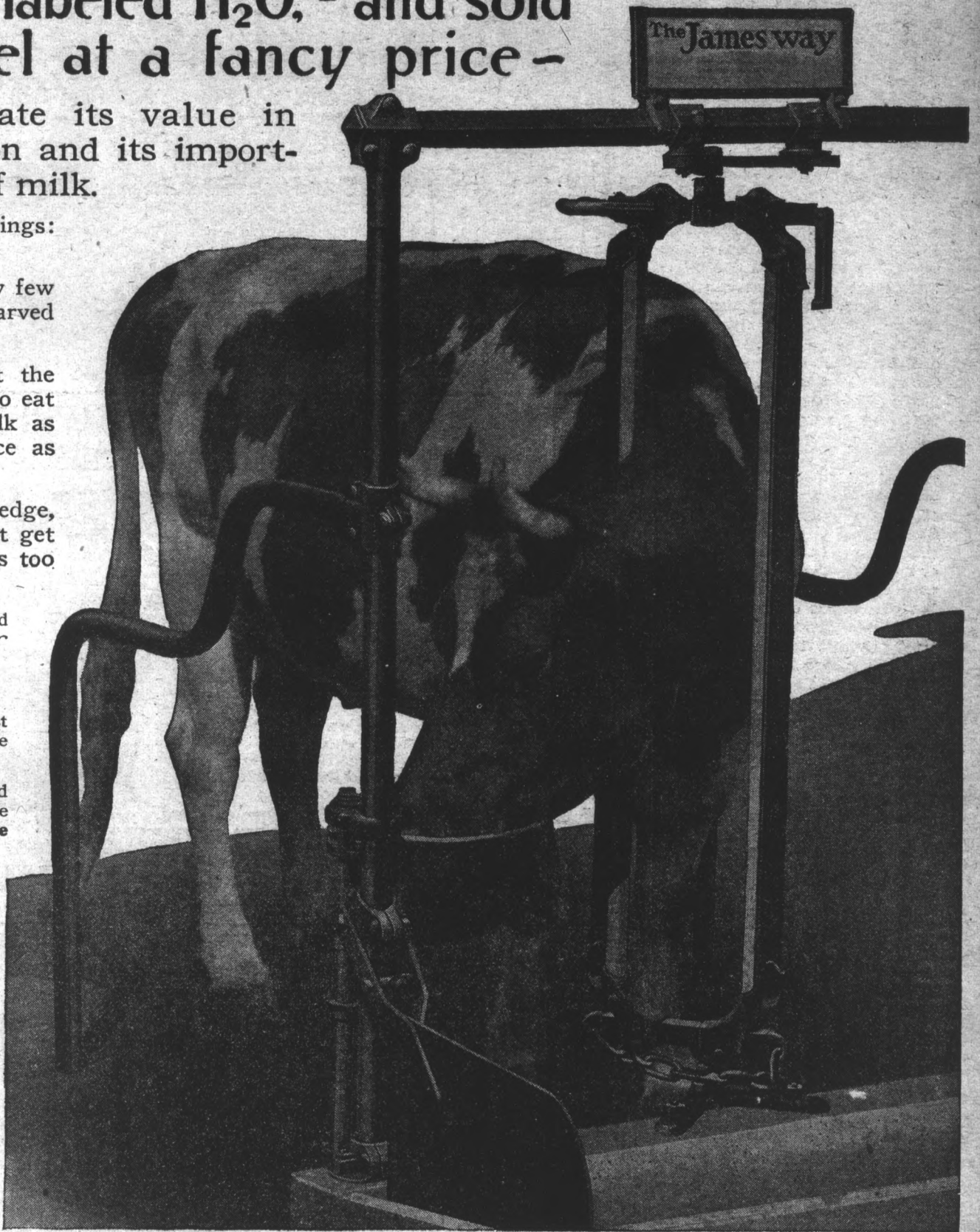
Can you afford to continue feeding the bothersome tank heater through the chilly winter days?

Don't put off this drinking cup proposition a single day. Write us at once for a definite price estimate covering a drinking cup installation in your barn.

We will quote you a definite price if you will tell us the number of stalls, of calf pens, of cow pens, of bull pens for which you want cups and whether the stalls or pens are wood or steel.

Barn Book Free

If you are interested in other labor saving equipment for the dairy barn such as cow stalls, carriers, steel pens, ventilators, etc., or if you are interested in up to the minute ideas in the planning of the new barn, ask also for our big barn building and barn equipment book "The James Way No. 24"



James Manufacturing Company, Fort Atkinson, Wisconsin
The James way
Labor Saving Equipment for the Dairy Barn