

MICHIGAN FARMER



GREAT HUMAN NATURE WHITHER ART THOU FLED?

DETROIT

NEW 1917 YEAR

MICHIGAN

ED. O. PEETS

The Michigan Farmer

Established 1843.

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The Lawrence Publishing Co.

Editors and Proprietors

39 to 45 Congress St. West, Detroit, Michigan

Telephone Main 4525.

NEW YORK OFFICE—381 Fourth Ave.
CHICAGO OFFICE—111 W. Washington Street.
CLEVELAND OFFICE—1011-1015 Oregon Ave., N. E.
PHILADELPHIA OFFICE—261-263 South Third St.M. J. LAWRENCE.....President
M. L. LAWRENCE.....Vice-President
E. H. HOUGHTON.....Sec.-Tres.I. R. WATERBURY.....Associate Editors
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TERMS OF SUBSCRIPTION:

One year, 52 issues.....50 cents
Two years, 104 issues.....\$1.00
Three years, 156 issues.....\$1.25
Five years, 260 issues.....\$2.00
All sent postpaid.
Canadian subscriptions 50c a year extra for postage.

RATES OF ADVERTISING:

40 cents per line agate type measurement, or \$5.50 per inch (14 agate lines per inch) per insertion. No adv't inserted for less than \$1.20 each insertion. No objectionable advertisements inserted at any price.

Member Standard Farm Papers Association and Audit Bureau of Circulation.

Entered as second class matter at the Detroit, Michigan, post office.

DETROIT, DEC. 30, 1916

A Happy New Year

THE conventional holiday greeting this year conveys a deeper significance than a merely formal greeting, one phase of which is reflected in our cover design. With sword still in hand, a sobered and saddened Europe has deigned to notice the feeble efforts of a weak nestling, which may, ere the year has passed, develop into a full fledged dove of peace. Happy, indeed, would be the year, in which the ambitions of men and nations were finally and permanently subordinated to the well-being of society and the broad interest of humanity. Should 1917 be that year, as now seems possible, then it will be, indeed, for the whole world A Happy and Prosperous New Year.

In a more local and limited sense the New Year wish is still more than a conventional greeting. It is a promise already half fulfilled. At peace with the world and among ourselves, with profitable employment a universal condition, with prosperity in our every industry a present condition rather than a future hope, with higher ideals and a determination to achieve greater attainments for the future, the New Year opens auspiciously for our country and its people.

May the New Year greeting be as universally significant to our great family of readers, is the hope of the Michigan Farmer in wishing each one of the numerous members of that family, a Happy and Prosperous New Year.

"Life Savers"

FROM time to time we have been advising readers that it would be to their advantage to renew their subscriptions to the Michigan Farmer if same were about to expire, or extend them as far ahead as they might desire before the announced advance in subscription prices which will occur on February 1.

While acting upon this suggestion many subscribers take the trouble to tell us that they consider it a good investment. The following letter, taken at random from the day's mail, is one of many similar expressions which we are constantly receiving:

"Gentlemen:—Enclose \$1.00 for a renewal for three years. Here is one farmer who is not worrying about the advanced price of subscription, as I would not be without your paper at any cost. I can point to many articles which have been life savers for me. With best wishes for your success.—Wm. M. Sanderson, Northwood Farm, East Jordan, Mich."

We might fill our paper with letters of this kind in which appreciative readers have given voluntary testimony regarding the value of the Michigan Farmer to them, but we are willing to

leave this question to the individual reader. This letter is quoted simply to direct his attention to the matter.

While frank letters of this kind are appreciated, the action of thousands of the older members of the Michigan Farmer family speaks more fully than mere words touching their estimate of its value to them. A case in point is a single order blank in the current day's mail enclosing three fifteen-year subscriptions, two from men of the same name, apparently of the same family, one of the three already having his subscription paid to 1919.

This is the last issue which will be received by many present subscribers unless a renewal is sent promptly. The expiration date of your subscription is indicated on the name tab attached to your paper. If that name tab reads 1Jan17, 1Jan7 or 1Jan your subscription expires with this number. On the first of February subscription prices will advance as advertised. Only prompt renewal will insure against the missing of some numbers and possibly one or more of the "life savers" mentioned in the above letter. Present prices are 50 cents for one year, \$1.00 for three years, \$1.50 for five years.

CURRENT COMMENT.

As an index of the future of our great live stock industry, the International Live Stock Exposition merits more than passing attention. The scope and extent of this show affords opportunities for comparison other than a mere study of the high-class individuals entered for competitive exhibition in this greatest of all utility shows.

For illustration, the prices brought by the exhibits sold under the auctioneer's hammer afford conclusive evidence of what the meat packers think of the immediate future so far as the supply of choicely finished meat animals is concerned. In the sales of the carload exhibits of fat cattle a very high average was made as well as a record sale for the prize winners. The 49 loads of fat cattle sold in the International auction sale made an average of \$15.23 per cwt. as compared with \$10.02 as the average price for the carload show cattle at the last International Exposition held in 1913, and \$11.85 the average for the same sales in 1912. The show feeder steers sold at a range of from \$8.25 to \$8.75 per hundred.

Carrying this analysis further we find that the top price for show cattle weighing 900 to 1050 pounds was this year \$17.75 per cwt. as compared with a previous price of \$13.10 paid in 1912. For cattle weighing from 1050 to 1200 pounds this year's high price was \$28 as compared with a price record of \$15 per cwt. made in 1909. For cattle weighing 1200 to 1300 pounds this year's high price was \$20 per cwt. as compared with a previous record of \$15.75 made in 1911. For cattle of 1350 to 1500 pounds this year's top was \$18.50 per cwt. as compared with a previous record of \$17 made in 1906. For cattle weighing 1500 to 1900 pounds this year's high value was \$15.75 as compared with a previous record of \$12.85 made in 1911.

It will thus be seen that sales of cattle of all weights and all ages were uniformly much higher than in any previous International auction ring. This is but a reflection of market values for finished stuff sold in the open market at the present time in comparison with previous years.

A study of detailed market reports will show that these values, except perhaps for the prize winners, are not greatly out of line with market values for finished beeves of similar weights which are from day to day sold in the open market. This is an indication of the attitude of the packers toward the future supply of fat cattle which should prove an inspiration to every feeder who is debating the question of

whether it will pay to put present high priced grain into the finishing of a good type of feeding cattle.

Another point is clearly illustrated, not only by the prices brought by these show cattle in the auction ring, but in the sales which are continually being made in the open market, namely, that the time has come when buyers of fat cattle are willing to pay a premium for well-bred animals which carry an attractive degree of finish. This should prove a like encouragement to farmers who have of late been studying the problem of commercial beef production on the farm, since if present values for this class of animals are maintained, there seems little doubt that the production of baby beef may be made a profitable specialty on our comparatively high-priced farm lands, particularly where an area of natural grazing land is available for pasturing as is the case upon a great many Michigan farms.

What is true of cattle is equally true in other departments of live stock production. The notable shortage of sheep and lambs has been reflected in sheep and lamb values during the past year, and will be still more observable in the trend of wool values next year. The gravity of the sheep situation from the wool standpoint is reflected by the recent action of the textile manufacturers resulting in the Philadelphia conference which was reported in a recent issue.

The pork problem is likely to be a still more serious one in the not distant future, due to the fact that thousands of pigs and brood sows are being sacrificed because of the short corn crop this year. This has had the temporary effect of reducing hog prices under the exceedingly heavy runs which have resulted from this general haste to market the pig crop.

The shortage and high price of dairy products tells the same story in this line of production. From any point of view the outlook appears to be exceptionally bright for the future of live stock production, particularly from the breeder's standpoint. With the increased market in South America for pure-bred cattle which is certain to be developed in the not distant future, with a heavy demand from foreign countries which will materialize after the war, with a shortage in all departments from the standpoint of home consumption there can be little doubt that live stock production will be a much more profitable line for the farmers of our state and country than has been the case at any previous time. A proper conception of this fact by our farmers means more to the future of our agriculture than merely the increased profits from this source, since the conservation of soil fertility through an increase in live stock production upon our farms will be a source of profit in larger per acre yields of the staple cash crops, grown upon those farms.

LEGAL QUESTIONS ANSWERED.

For the accommodation of our subscribers, we have arranged with Mr. Allan Campbell, a competent attorney, to answer legal inquiries for our subscribers. For this service a fee of 25 cents for each question will be charged to insure that only questions of importance will be asked. This will bring a personal letter of advice from the attorney, to whom the questions are referred. Address Legal Department, Michigan Farmer, Detroit, Mich.

HOW IT FIGURES.

A monthly farm paper, to be as cheap as the Michigan Farmer at 50 cents a year, would have to sell for 12½ cents a year, and a twice-a-month farm paper to be as cheap would have to sell for 25 cents a year. Markets, veterinary advice and other features would be of the same comparative value.

RECEIPTS FOR MONEY.

We do not send subscribers receipts for money sent us for their subscriptions, because the changing of the date tab will show we received it. Should the date tab not show a change in 30 days from the date you mailed your order, please make complaint.

HAPPENINGS OF THE WEEK.

Foreign.

The European War.—Probably the most discussed incident in connection with the week's war events is the note of President Wilson to Great Britain requesting a statement of the terms on which Great Britain is willing to make peace. The English press has criticized the attitude of the President rather severely, while reports from Germany indicate that the message was accorded a tremendous welcome there. President Wilson based his right to make such a plea upon the ground of necessity on the part of neutral nations as well as upon the needs of humanity in general.—The German submarine U-45 which recently raided shipping off St. Nazaire has been sunk by enemy cruisers, and according to news from Berlin the German submarine U-46 has been sent to the bottom in the Bay of Biscay by entente naval forces. It is possible, however, that these two references may be to the same submarine.—Russian forces which have been holding the Teutons at bay for several days on the Dobrudja front are now compelled to withdraw northward. A Bulgarian attack at Lake Babadagh was a complete failure and resulted in the capture of a number of the attacking forces. Farther to the west the armies are marking time with the Teutons apparently waiting for developments in the Dobrudja district. On the front between the Carpathians and Riga no important action has taken place during the past few days. A Turkish town lying 90 miles east of the Suez Canal was captured last week by British troops. The British have also renewed operations on the Tigris and are approaching Kut-el-Amara where Gen. Townsend's forces were captured several months ago. No important battles or movement of troops are reported on the Italian or western fronts.

National.

A coal famine threatens many of the central western cities and large industrial concerns. Detroit's lighting plants has but a short reserve, and the same is true in Chicago. The sugar company at Mt. Clemens has been obliged to shut down for lack of fuel. The mayors of Grand Rapids, Flint and Ypsilanti are out to secure action from the railroads in appeals urging that fuel be carried in preference to other non-perishable freight. The federal government takes the position that it cannot force railroads to move freight. The Detroit embargo committee has not disclosed its discoveries regarding congestion in local terminals. Drastic measures, however, are being planned for shippers and receivers who persist in holding cars for an unreasonable length of time while loading and unloading.

President Wilson has nominated the five members of the government shipping board. Each member will receive an annual salary of \$7,500. The board, under the law, will have general supervision over freight rates in American waters. It is also empowered to organize a fifty million dollar corporation to build or buy merchant ships.

The bursting of a flywheel in a rolling mill at Kalamazoo on December 22 resulted in the death of one person and in six others being more or less seriously injured.

STATE VEGETABLE GROWERS MEET.

The first annual meeting of the Michigan State Vegetable Growers Association will be held at the Hotel Tuller, Detroit, Mich., on Tuesday, January 9, 1917. All vegetable growers are cordially invited to attend the meeting and banquet. The program will appear in the next issue.

ERROR CORRECTED.

Price on Combination No. 12 should be as below.

No. 12.
Michigan Farmer, wky., 3 yrs....\$1.25
People's Popular, mo......50
Mother's Magazine.....1.50
Jersey Bulletin.....1.00
American Boy.....1.50

Regular price.....\$5.75

OUR PRICE ONLY \$3.25.

After January 1 50 cents additional will be added to the price of all dailies in any club. If the remittance is short the time of the daily will be cut to balance.

Applying the Rural Credit Act

By JAMES N. McBRIDE

How the Michigan Farmer May Retire and be Assured of a Safe Income Under the Rural Credit Act, and the Tenant Farmer Become an Owner.

FARMING from some standpoints is a tragedy. When a farm is cleared, fenced, drained, buildings erected and equipped, and contains, say 240 acres, worth \$150 per acre, it is a difficult proposition to sell. Any man who can afford to own such a farm as an investment does not invest. If he desires it to work, rental is cheaper than ownership, because of the high interest rates and ability to reap some of the soil's fertility and not maintain it to the maximum of productivity. The owner, in advancing age, cannot superintend hired help and is compelled, against his will, to resort to tenant farming. Many a man has seen his well-kept farm deteriorate, and buildings decay, and gone in sorrow to his grave, because he was powerless to prevent these conditions.

How the Rural Credit Act will Help the Owner.

Under the rural credit act he can minimize his equity to a point of safety and secure a tax-free investment in bonds, which require no care to collect interest, and relieve himself of the care of the farm. A second mortgage, under the rural credit act, of \$10,000 and a first mortgage of \$10,000, would, if based on the five per cent, 20-year plan, compel a payment of \$802.40 on the first mortgage, and, if at six per cent, interest on the second mortgage amounting to \$600.

Each year the second mortgage would represent an increasing asset, at the same ratio as the first mortgage amortized or decreased. In case of default in payment on the first mortgage, the original owner could repossess himself by exchanging the bonds for the land, for he would have in these bonds a liquid asset, always convertible. Since the government is not anxious to have the land in case of default, he, as the second mortgage holder, is always able to protect the second mortgage. The purchaser of lands under this act, who has integrity and reputation as a good farmer, will have the assistance of the original owner for he wants his bonds to be gilt-edge, and looks forward to the consummation of his sale.

How it will Also Help the Tenant.

This act will shorten the period of tenancy now usually required before the tenant may safely become a land owner. The long period and low interest rates makes the hazard very light and only the very timid will hesitate on this account. The purchaser has the ability to realize on these two certain assets of ownership, which are absent in tenancy. First the time not actually employed in crop production, he will use in improvements. As a tenant these permanent improvements would not accrue to him; as an owner they will. There is thus an increased employment of time, of approximately 25 per cent, available for improvement, which under tenancy is not employed. There is an average of approximately 10 per cent of productivity decrease in tenancy caused by soil depletion, where ownership would compel soil maintenance. These two items are oftentimes equal to the total labor income of the tenant farmer. In other words, the labor income, or farmer's total wages, will be vastly increased under this new credit act.

Where sons or relatives have employment relations or relations of farm tenancy with their kin, they will find a way to avoid friction by recourse to the federal mortgage loan, which will completely define their status, and place the relationship on a correct business basis. What can a son do toward buying out four co-heirs to an estate of \$10,000, may be illustrated as follows: An assumed possession of \$2,500, a second mortgage to his kin

or backer, the original owner, on a federal farm loan of \$5,000. The annual interest on the second mortgage would be around \$150, and the amortization and interest payment on the federal loan at five per cent, 20-year payment, would be \$401.20, making a total of around \$650 of annual payments. If the payments on the second mortgage are long deferred, it would only be a question of time when the lessening of the liability of the first mortgage would, with the increasing values of the farm, allow the merging of the second mortgage into an additional allowance, placing all indebtedness with the federal farm loan.

One certain effect of this rural cred-

it law is to stabilize land values so that no general depreciation will ever come to decrease prices of good farm land. A second certainty is that no covetous purpose can ever come under this law to harass the mortgagor and dispossess him of his land.

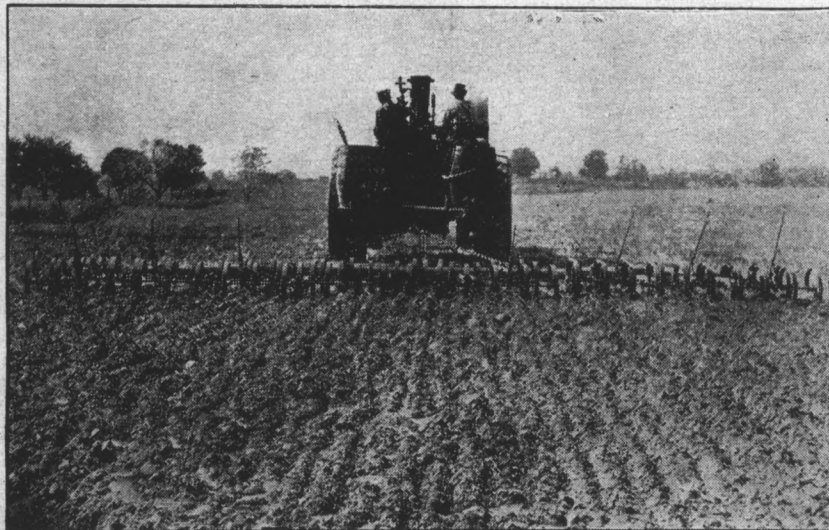
To the tenant farmer of Michigan this law opens an opportunity to become an owner, and with every certainty of continued agricultural prices which will be compensatory, there should be no hesitation in action. Select farms you know. Discuss your plans frankly with their owners. Figure your net payments annually and if necessary hypothecate your chattels or growing crop as security. Ownership of land will avoid much of the friction you have encountered as a tenant. Address W. W. Flanagan, Secretary Rural Credits Board, Treasury Bldg., Washington, D. C., for detailed information as to farm mortgage loans.

Side-Lights on the Farm Labor Problem

By J. A. KAISER

ENOUGH has been written in recent years, on the farm labor problem, to fill a book, and a good-sized book at that. The question, however, is a pertinent one. In some localities, it has assumed serious proportions, and has actually compelled farmers to curtail their farming operations. Like many other problems of today, this scarcity of farm labor is a product of new and unlooked-for conditions. Twenty-five years ago, there was no farm labor problem in Michigan. Year hands, month hands, day hands, and good ones, too, were plen-

young country lad is in too much of a hurry to get to the city and know its ways. Country life today, with its rural telephone, its rural free delivery, and its automobiles, ought to be a satisfactory and ideal kind of life. But the farm-bred lad turns too often, to the city with its imagined advantages and conveniences and its greater temptations. This trend cityward robs the farms each year, of hundreds of fine young fellows who give new blood and new vigor to the cities at the expense of the rural districts. How many times, too, when it is too late, do these farm-



Preparing Bean Ground for Wheat on Farm of Robt. Darling, Livingston Co.

tiful. In those days, no farmer who was willing to pay the current wage and treat his hired help like human beings, need want for all the help he could use. But those "good old days" are gone never to return. The farm labor problem is ever with us, acute, persistent, dominant.

In a study of the question in his own locality, the writer has arrived at certain factors, some of them minor, perhaps, but none-the-less vital enough to enter into the situation. First of all, Michigan factories and high wages paid factory employes, have been instrumental in bringing about the present scarcity of labor on the farms. Even in these prosperous times, farmers do not feel that they can pay the high wages which men receive in some of the auto factories of the state. Even with wheat selling for \$1.75 and corn at \$1.20, \$5 per day looks like robbery to the average farmer. The laborer does not, as a rule, take into account other things which serve as eveners between the wages paid on the farm and those paid in the factory. Often he is not so far ahead, with his high factory wages, as he would be at a lower wage on the farm.

The City is a Lure.

Hand in hand with the higher wages paid in the factories, come the allurements and excitement of the city. The

er boys look with longing to the old farm and the old home and the green fields they once thought so commonplace and tame?

Village vs. Farm.

For the reasons stated above, good farm hands are scarce and difficult to obtain. But there still remain in the villages and rural districts, a considerable number of workers. In many of our villages may be found men whose place and opportunity are on the farm. For some petty reason or aversion, these men stick to the villages and eke out a precarious existence. Some of them are out of work nearly half the year, and most of them live always in the fear of losing their jobs. It is an actual fact that in the writer's section, every village is over-crowded with day laborers, while the surrounding farming districts are lacking to a lamentable degree, in laborers of this type. Wages are no higher in the village, often they are not so high as on the farms. But the village dweller is in a rut, and he lacks the enterprise requisite to pull himself out. He fancies that on the farm, he will have less advantages, less liberty, less conveniences. As a matter of fact, however, this is not true. Modern rural life offers all the conveniences afforded by smaller towns and villages. The high cost of living can be met nowhere, so

well as on the farm. Could men be made to see this, the farm labor problem in many localities, would be largely solved.

Minor Factors.

Still another item which has entered of late years, into the farm labor problem, is found in the good roads movement. Permanent road improvement is carried on every year, from April to November, in the various townships of the writer's section. Quite a large gang of men, many of them with teams and wagons, is kept steadily at work in each township, from early spring to late autumn. This condition necessarily affects the farm labor problem. In one township, during the past summer, road-building was suspended for two weeks, to give the farmers an opportunity to secure help in caring for their crops. The work of permanent road improvement will go forward for years to come, and in a small way, must continue to be a factor in the scarcity of farm labor.

Another cause for dearth of help on farms in southern Michigan, is found in the tendency among young men, to go to a newer country to try their luck—to northern Michigan, to the Canadian Northwest, or to the western portion of the United States. It is true that this is a factor that has always existed, but it is only in recent years that it has had any perceptible influence on the farm labor problem. When labor is scarce, influences are felt that would not be noticed at another time.

To a greater or less degree, all the conditions mentioned, have more or less influence on the farm labor question. The farmer stands powerless before such a combination of circumstances, all working to take away the help needed in farming operations. Machinery has done wonders in solving the difficult problem, but in very many things, human hands still surpass any mechanical device. Many and many a laborer would be better off on the farm, if he could only be brought to see it, and the principal aid to the farmer must come in this way.

THE UNCULTIVATED LANDS.

Quite a lot has been said about the uncultivated lands in Michigan, but the most important part has been left out. Very true, there is some valuable land in Michigan that ought to be cultivated, but unless there is a change they will go a long time without. Within miles of where I live there are thousands of acres of uncultivated land, some is good land, some not so good. Now this land is mostly held by would-be speculators. They expect, as the farm adjoining their land advances in price, their land will increase in value, but they are mistaken. This uncultivated land is growing thistles, milkweed, burdock, wild carrot and every other foul stuff, and it blows and is scattered all over the country till the farms that were nice clean farms are a disgrace to look at, all on account of the lazy speculator. They hold their land so high that nobody will buy it, but they don't want to pay any taxes on it. It doesn't produce anything of value, but it does produce a lot of foul seed and the adjoining farms get them. A few years ago a socialist got elected supervisor; he raised the valuation and it set them wild. Up came a man from some place and cut them back. 'Now I would like to have that same man or his brother come up when the crops of thistles, milkweed, burdock and wild carrot on this uncultivated land are ready to harvest, and bring lots of help, for there will be a bumper crop this year. Then when he can see the big crop he will know better the value of the land.

Land that will grow big weeds will grow big grass and potatoes. If I had the say of it, I would raise the value on such land till the owner would either farm it himself or sell it cheap enough so some poor renter could buy it that would farm it. PIONEER.

Clothes for Farm Use

By R. G. KIRBY

ONE of the advantages of farming in these days of high prices is the fact that the expense of clothes is small compared with the cost in the city. It does not follow that the farmer must be improperly clothed to save money, but he can purchase garments made of substantial fabric which may be rough for city wear, although ideal for service on the farm. There are many so-called unclean jobs on the farm, but very few of them are as hard on clothes as the dirt and dust in a city office or the grease of the factory. The worker in a city office must wear white collars and fairly good suits. The sleeves soon become frayed by work at a desk and the collars must be changed every day. Laundry bills are a weekly drain on the income and many men consider two good suits each year as the smallest number on which they can get along and look respectable. The expense for clothes is seldom considered by the farmer who sells his farm and obtains employment in a city store or office.

On the farm a well-made suit can be made to last two years. Hangers for the coat, vest and pants keep the suit well creased, with little pressing, as the suit will probably not be worn more than twice each week. Frequent pressing helps to wear out the best fabric and by carefully hanging up the clothes after they are worn the farmer can keep his best suit in fine condition with little trouble. The farmer who does not wear his best clothes every day knows what it means to be "dressed up" and appreciates the feeling of wearing good garments. The office clerk wearing neat clothes of the latest styles every day of the year does not know the joy of occasionally wearing a good suit. After finishing the Sunday morning work the farmer can throw off the work duds, jump into a good-looking suit and honestly feels that he is dressed up. The farmer's clothes are selected on the efficiency basis. They must render good service and furnish the necessary protection to the body. The wool lined coats or mackinaws keep out the wind and it is the effect of chilling winds that causes suffering from colds.

Give the Shoes Good Care.

Shoes are growing more expensive every day. One dealer advised me to lay in at least two pairs of good shoes, saying that he guaranteed I would save at least two dollars per pair on the purchase. He states that no hides are being imported at this time and shoes are being exported, and while the supply of hides seems to diminish, the demand for shoes seems to increase. It pays to protect good shoes by wearing storm rubbers whenever stepping out in the snow. Wetting the shoes and then roasting them by the stove causes a rapid deterioration of the leather. Wet shoes are uncomfortable and cause illness and the time taken in putting on and taking off rubbers is well invested. Many farmers do not like to wear rubbers and after protecting their feet with heavy lined boots on the farm they will wade through the snows of city streets, especially on Sunday, with only the protection of thin leather shoes. The shoes are soon wet and their wearing period is greatly shortened.

There was a time when the wearing quality of a shoe was supposed to depend on the roughness of its construction and the bulk of leather which it contained. I remember purchasing shoes as a boy for use on a farm. The clerk received instructions to show some good strong shoes for farm use. He brought out roughly made shoes that looked strong. They were used in following a corn cultivator for several weeks and developed enough blisters to make the work very unpleasant. They made walking hard work and furthermore their rough bulk was no

guarantee of long life. As soon as they were wet they began to go to pieces and did not last as long as lighter shoes which cost but little more money and were finished in a manner that made them comfortable. The light, well-made shoes are often the best investment for the farmer as they make walking easier and last longer than some of the cheaply made shoes with an appearance of wearing qualities but poor quality material to back up the appearances.

Consider the Wife.

In buying shirts it pays to ask the dealer for the round thread or loose weave material instead of the flat thread. They may not look quite so fine in appearance but the goods wash more easily and they are more durable. In selecting the colors it is well to buy blues or tans, as they are more easily washed than the white material. Black shirts are very hot in the bright sunshine during the summer—and are more suited to the uses of the machine shop than the farm. It pays to consider the wife who does the work, when buying shirts for the farm, as they have to be washed frequently and wash day is a hard day for many farmers' wives.

LILLIE FARMSTEAD NOTES.

Imagine my surprise on returning home from the central part of the state Friday night, December 15, to find 14 to 16 inches of snow. Where I had been there was only a few inches of snow, and good wheeling. Only once in a while did one see a sleigh, but here in Ottawa county wheeling is out of the question. The snow is not drifted at all and we have splendid sleighing now.

The sudden change to cold winter weather has shrunk the milk yield somewhat, although the cows are confined to the barn and do not even go out for water. This shrinkage is only temporary, however, I feel sure. It always works that way more or less. The cold weather gives the live stock a good appetite and they are consuming the hay and feed at an increased rate. Good, cold, steady winter weather is a good condition for all kinds of stock. They eat better and after they get accustomed to the weather they seem to enjoy it and do even better than in open winter weather. Now that winter has come I hope it will stay, but usually sleighing in December means mud in January.

Our own stock, including horses, are looking well, going into winter in excellent shape, but the steers I bought are thin. It will take a long time to start them.

The Farmer's Dilemma.

The boycott worked only temporarily. When there is a real scarcity of any product a boycott can affect it only for a short time. It looks as if people who want butter and cheese this year must pay a good price for them and they ought to be willing to do so. The farmer's feed bill is simply enormous. I hear farmers talking all over the state that they must cut down the acreage of crops on account of the scarcity of labor. They feel it is not safe to plant too much for it can not be taken care of. This is the only wise solution of the question, it seems to me. In fact, what else can a farmer do? He can get just as much out of the smaller area anyway, for the product will bring better prices. Many old men, not able to work hard, and many women, have been compelled to work hard this past summer to save the crops, poor as they were. This will have its effect on next year's production. The thing to do is to cut down the acreage and grow nothing but good crops. It means less work and more profit.

But what are we to do with the land? Pasture it. Keep more sheep, more steers, more cattle. Give them pasture enough so they will thrive all summer until late in the fall. It saves work. Many farmers are fattening their lambs and steers as well as their hogs, by turning them into the standing corn and letting them harvest it. There is a waste of stalks to be sure, but if the labor is not to be had this waste must be tolerated. There is some compensation in the fact that the stalks will make vegetable matter which later will supply humus, the element that most of our land needs most of all.

Understand, this is not my idea of farming exactly, but conditions exist that must be met. Do the best you can. If you can't get help you won't have to pay them. There is a cash gain there that will compensate somewhat for the loss. Under these conditions farmers will live as well as or better than other people. I don't think it is the best thing for the country, but it is the only thing the farmer can do, and it will pinch the other fellow more than it will him.

Farmers vs. Speculators.

Some people argue that farmers who have wheat should sell, so the price will go no higher. They say farmers ought to be satisfied with present prices. I think they are, but that is not the question. If the farmers would all sell it would make no difference in the price of flour. The speculator would like to have the farmers all sell, so they could get the wheat all into their hands. Then they would hold for the very best prices they could get. If the farmer holds his wheat the speculator is handicapped. If he unduly boosts prices he must pay the farmer who holds, a better price, and this he dislikes to do. He wants the wheat all in his hands, then he will reap all the profits from high prices.

It is better for the consumer to have the farmer hold a crop than to have the speculators own and control it.

COLON C. LILLIE.

ICE—AN OFT NEGLECTED CROP.

During the coming winter, which has been preceded by such an unexampled season of prosperity for the farmers of Michigan, no one not already provided with such facilities should fail to approach the warm season of nineteen seventeen with a proper ice supply. Anyone who has once had the precious privilege of ice in summer can appreciate to the full what deprivation it is to be without it.

It doesn't cost so much to have ice in the country. Oftentimes one doesn't even need to build a new structure, for there is generally some small out-building which can be made to do duty as an ice-house. The essential quality of an ice-house being usefulness, not ornateness, wonders may be accomplished by the aid of cheap roofing paper and felt, and a few rough boards and some sawdust. Even if the farmer has to erect a cheap structure it pays, and each man can best work out a building to suit his purse and fancy.

Fortunately ice cutting comes at a time when work is slack. Sawdust is cheaply obtained, and ice can be had free in many cases, or for a very nominal cost. I have yet to see the Michigan district of farms without its local lakes and ponds. Of course, the ice crop, like other crops, varies in quantity and quality, but nearly every season provides enough ice if taken advantage of at the right time.

But ice without a refrigerator is the mistake half the farmers make. They seem to balk at the refrigerator, and the refrigerator is the corner stone of ice comfort. A refrigerator may be purchased as low as \$15 to \$20, according to size. And surely money was never better invested. Firm butter for the table without the weary travels up and down the cellar stairs; refreshingly cool puddings; crisp lettuce and

radishes; cool drinking water at no extra cost, by keeping a bottle or other receptacle near the ice in the ice chamber; and, last and greatest privilege, ice cream daily if wanted.

As to quantity needed: About 120 cakes—averaging 50 pounds each—if the refrigerator is large, or 60 if the refrigerator is small, allowing a good margin for waste and extras, should provide for June to September inclusive. City dwellers find 20 to 40 pounds daily, (according to the size of their refrigerator), with a double size on Saturdays to stand over Sunday, to be sufficient for their needs. Surely Mr. Farmer, you can negotiate that deal when you realize the importance of it. At least search your mind carefully this winter to find the reason why you can't.

Kent Co.

F. J. YATES.

THE STAY ON THE FARM MOVEMENT.

For several years there has been more or less discussion of the migration of young men from the farm to the city. Articles have been written that tend to make the people believe that in a few years the farms will be deserted of young men, and that the interests of agriculture will take a vast slump.

There always have been and always will be a certain number of young men who will go to the city for employment. This is but right, as not every one born on a farm is suited for farm life, and besides, there is not room for them all. But there is still a large number who have stayed on the farm and are using up-to-date methods of agriculture. If the reader doubts this let him take a trip through the country in the summer. He will find as many young farmers as old ones. Besides this, the sons of the older farmers can be found on the farm during the summer. Each winter an increasing number of these young men are found attending the short courses at some agricultural college. Here, they come in touch with men who have made agriculture and its phases their life work, and when they return to the farm they are possessed of the knowledge they have acquired and also have the power to gain more by study and observation.

Then, too, there are many young men from the farms that are attending the regular four-year course at some agricultural school. Many of these men go back to the farm upon completing their course, for they have been able to see the advantages a farmer's life can give them. These men become leaders in the communities where they live, and their influence for better agriculture is large. Instead of all the young men leaving the farms, as many seem to believe, they are the real life blood of present day agriculture and the promise of its further great development.

Ingham Co.

S. E. TAYLOR.

DEATH TO USELESS EATERS.

With the cost of living going up by leaps and bounds, prompt disposition should be made of every unprofitable consumer of food. Now is a good time to go into the swatting business in earnest.

Swat the English sparrows. They eat a lot of food. They drive off other birds whose songs and plumage we love, and also are the farmer's real friends.

Swat the mice and the rats. They eat and waste millions of dollars' worth of grain. They injure buildings and other property, and are always and everywhere a nuisance.

Swat the cats and the dogs. They carry disease. They kill desirable birds and animals. They consume much food. They make night hideous. Unless your particular cat or dog can show just cause to the contrary, swat it.

Clinton Co.

L. K. LONG.

Orchard Observations

The Red Spider

THIS last year was rather favorable for many insects, because of the warm weather. Consequently orchardists were often at a loss as to the cause of certain injuries to trees, some insect injuries being hard to distinguish from fungous diseases.

Several orchards which had not been sprayed after the rain in August were visited during the first part of September. While comparing varieties of Virginia and Martha crabs I noted the peculiar character of the leaves and the lack of vigor which appeared among many of the trees. Further investigation developed that many other trees were affected in the same way, but the crabs were most severely attacked. At a glance one would say it was scab, but closer examination revealed some of the leaves to be free from scab. The leaves were dead in areas and curled; underneath the leaves were many webs. The web is very thin and may contain small dark bodies. With a hand lens one could observe tiny bodies moving back and forth on the leaves. Some of the bod-

icate it. Bordeaux alone, or lime sulphur, will not control this little pest at all times.

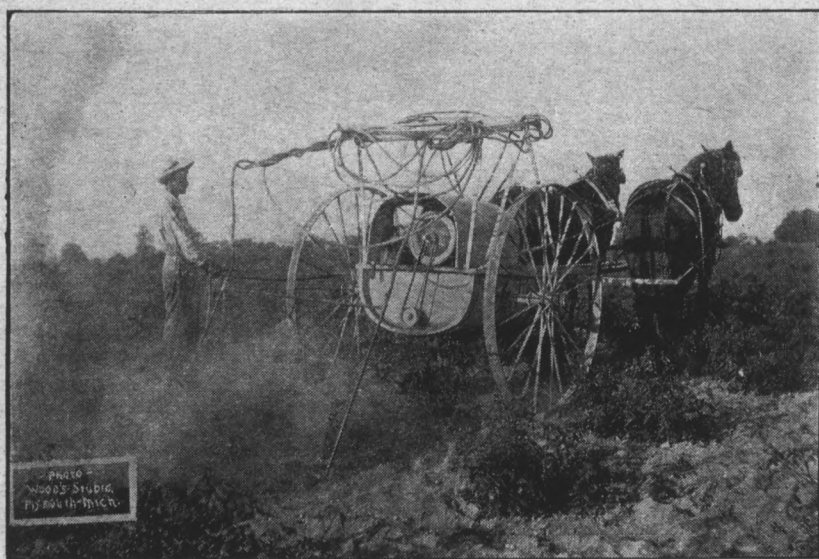
Wisconsin.

C. N. FREY.

THE POINT ROT OF TOMATOES.

In certain seasons following periods of extremely dry or extremely wet weather, growers notice a rotting of the blossom ends of tomatoes. If this rotting was confined to the tomatoes which were on the ground, the nature of the rot would be readily explained, but the trouble is noticed also on tomatoes which are produced high up on the plant. The signs of this trouble consist of black, rotted spots on the tomato on the blossom end of the fruit. At first the spots are small and may show only as water-soaked areas on the skin. These soon enlarge and may take in one-half of the fruit. In the late stages, the tomato frequently shows a moldy outgrowth on the blackened portion.

Many fungi and many bacteria have been found associated with this rot in the field. The inoculation experiments



A gas pipe frame made to straddle a row, equipped with nozzles to spray the plants from above, below and the sides, and attached to the spray rig by pieces of hose with the lower ends of the frame dragging on the ground, enabled Mr. Ravilier, of Wayne county to thoroughly spray his tomatoes this season, with highly satisfactory results.

ies were green and others reddish. It was the red spider.

The red spider sucks the juices of the leaves. When feeding on the foliage the spider is usually green, but it may also be red. It has two dark spots on the abdomen. As seen with the naked eye it is no longer than the diameter of the ordinary sewing needle, or about one-fifth of an inch, and on account of its small size escapes detection.

Entomologists tell us that the spider hibernates in the ground near the trees. It spins fine webs underneath, or in the lower side of the leaf, and beneath this the mite works, sucking out the juice from the leaves. The leaves turn brown or yellow and may fall off or remain on the tree, curled and enmeshed in the web.

Entomologists advise a different spray from those given in the spray calendar. Some advise 10 pounds of sulphur to 50 gallons of water as a treatment. Soap is added to mix the sulphur with the water. The mixture should be well stirred before applying. Screen the sulphur before using it. A soap solution has also been advised as beneficial.

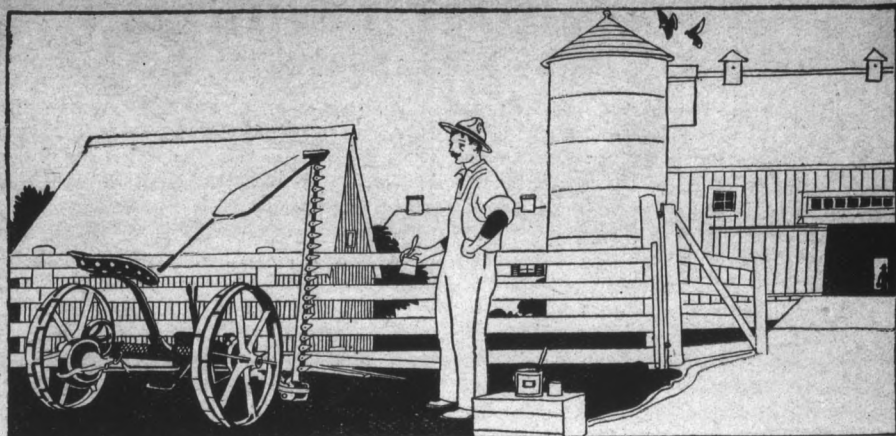
As a rule the outbreaks I have observed were not continued from year to year, so perhaps the trees will be able to take care of themselves next year. However, if the trees do not look thrifty next spring it may be well to examine the leaves carefully and determine the cause and proceed to erad-

icate it. Bordeaux alone, or lime sulphur, will not control this little pest at all times.

Plants are most susceptible after a period of rapid growth. Wet weather early in the year predisposes plants. Either excessive water or a sudden change in the water supply, has been shown by experiments to bring on the trouble. Heavy applications of fertilizers, especially the nitrogenous and horse manure, have increased the disease in amount out of proportion to the effect on the plants.

So far as is known, nothing can be done with the crop which is already injured. By cultivation it may be possible to bring about an adjustment of water supply so that the tomatoes which are produced later in the season following an attack, will be sound.

For the next year the selection of a well-drained location with a moderate nitrogen supply and the best varieties, should give a crop comparatively free from this trouble providing the weather is more favorable than it has been. If one is growing plants in the greenhouse or if he can use some irrigation system, it may be possible to avoid extreme conditions of moisture and thus prevent this trouble.—M. A. C. Department of Botany.



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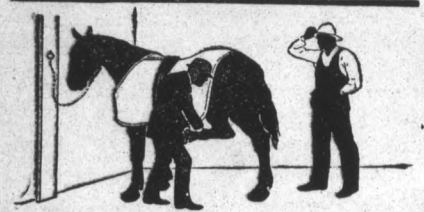


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Training the Young Colts

THE winter season, when the owner has time to devote to the task, is the most favorable season for training the colts. There may be some youngsters that have not yet been accustomed to the restraint of the halter. If so this is a good place to begin what might properly be termed "The gentle art of colt training," since patience and gentleness are essential qualities of the successful trainer. For the beginner in the business of training colts some very useful suggestions are contained in Farmers' Bulletin No. 667, published by the U. S. Department of Agriculture:

Before a colt is broken to being led it should be taught to stand tied; this applies to unbroken horses of all ages. To do this, put a strong halter on the colt; then take a rope about 14 feet long, double it, putting the loop under the horse's tail as a crupper, twist the two ends together about three times so the twisted rope lies on the colt's back a few inches ahead of the tail, then let one come forward on each side of the horse, and tie them together in front against the chest just tight enough so that it will not drop down; then run a surcingle loosely around the horse behind the withers, tying into it the crupper rope at both sides. Have an additional rope about 12 feet long, run it through the halter ring, and tie it at the breast to the rope that forms the crupper. Tie the other end of the rope to a solid post, allowing about three feet of slack. Leave the colt tied for an hour. Another method is to have a loop in one end of the rope, run the lead strap through this loop, and tie it with a little slack to the rope that forms the crupper, the other end, of course, being tied to a solid post.

While tied the colt should be gentled and accustomed to being handled on both sides, on the hind parts, and on the legs. To do this, hold the headstall in one hand and with the other hand pet and rub the colt, first on the neck and head, then on the back and sides, and last on the legs. To gentle the hind parts take a stick about four feet long, wrap a gunny sack around one end, and tie it. Allow the colt to examine the stick with his nose, then rub it all over his body.

With this arrangement the colt's hind legs may be rubbed without placing one's self in danger of his heels. If he kicks at it do not hit him, but allow him to examine it again, and proceed as before. This lesson should continue until the colt will stand being approached from either side and rubbed all over. The second day he may be tied up again and further gentled with sacks, blankets, and noises until he has no fear of them around him, under him, or upon him.

Another method of gentling a horse is to tie the halter rope to the tail. This forces him to go in a circle. When he gives in and stands quietly he may be harnessed, saddled, mounted, accustomed to strange sights and sounds, and handled with safety. This is one of the best aids in use in gaining a horse's submission.

Breaking to Lead.

The horse is now ready to lead. Loosen the rope from the post, step off from the horse, and tell him to "come," following the command with a pull on the rope. As soon as the horse advances pet him, then step away and repeat. He will soon follow without the pull on the rope.

The next day the crupper should be put on at the beginning of the lesson, but should be discarded after a short work-out and the halter alone used so that the colt will not depend on the crupper rope. These lessons should be continued until the colt leads satisfactorily.

To break to lead without crupper ropes use a strong halter with a lead

rope. Step back about six feet from the colt, opposite his shoulders, cluck to him, and pull on the rope. The colt will be forced to take a couple of steps; reward him; cross in front to a similar position on the other side and repeat the command with a pull. Continue the lesson until the colt follows. Never pull straight ahead on the colt; he can outpull. Use diplomacy rather than force.

Breaking the Colt to Drive.

After the colt has been broken to lead he may be accustomed to the harness and trained to rein. The horse should never be hitched to a wagon or ridden before he is broken to drive in the harness. He should be trained to answer the ordinary commands. In familiarizing the colt with bit and harness the "bitting harness," which consists of an open bridle with a snaffle bit, check and side reins, and surcingle with crupper, may be used. This rigging is put on the colt, leaving the side and check reins comparatively loose, and he is turned loose in a small paddock for an hour. The second lesson consists of teaching the colt the feeling of the reins which may be tightened somewhat. The third day the driving reins may be used and the colt is taught to go ahead. Cluck to the colt, or tell him to "get-up," use the whip and let him know what is meant. Both sides of the colt should be trained, as objects viewed from different angles may frighten him badly. Driving in a right and left circle will facilitate this training. The next lesson consists in teaching the horse to answer the commands of "Whoa," "Getup" and "Back."

After teaching the horse to go satisfactorily in the bitting rig, the work harness with breeching can be substituted. The traces and breeching should be joined loosely together and gradually tightened, as the work progresses, thus familiarizing the colt with the sensation of wearing the collar and breeching. He is then ready to be hitched to the wagon or cart single, or double.

COLOR OF SHORTHORN CATTLE.

What is the origin of the roan Durham stock? What dairy qualities do they possess? What is the Scotch breed, also Bates breed? Give the difference between the red roan and the white, outside of color. When advertisers say "Shorthorns for sale" and nothing more, what color must I assume they are?

Kent Co.

L. M. S.

The origin of the Shorthorn breed of cattle is somewhat obscure. Briefly, the original home of the breed was in northeastern England in the counties of York, Durham and Northumberland, hence the name of Durham sometimes used in connection with the breed. The more distinguished improvers of the breed recorded in history date back to about 1780, at about which time a number of prominent and successful breeders made the first really notable Shorthorn history. These early Shorthorns were general purpose cattle in the best sense of the word, combining good dairy quality with merit as beef producers.

The Bates strain of the breed, so-called, were first developed by Thomas Bates, a Yorkshire breeder of exceptional ability whose aim was the combination of superior dairy quality with good beef production, and the families founded at that time have been most notable for dairy quality throughout subsequent years. The type of Shorthorns commonly known as Scotch, on the other hand, were developed with an eye single to economical beef production and with little regard for dairy quality, which characteristic to a considerable extent has been exhibited by so-called Scotch families since their foundation with this end in view.

The color standard for Shorthorns includes red and white in all degrees

of combination, including roan. Naturally, color fads have prevailed among Shorthorn breeders, and at different periods in the history of the breed the white color has been discriminated against, while reds or roans have succeeded each other in popularity. As is usual when a pendulum swings far in one direction, a reaction has always occurred in this regard, and at the present time the individual excellence of the animal is not subordinated to the matter of color, hence the colors named are all standard marking of the breed, and all may be found in many excellent herds.

CUTTING UP AND SALTING THE PORK.

I use a sharp ax to cut up our hogs. It severs the bones without crushing them, and is much quicker than a saw, and the meat is not filled with bone sawdust. There are no bones in a hog—except the jaws, and teeth, that will dull a sharp ax, and these can be cut with a dull ax.

I take a hog down from where it hangs and place it on the chopping bench which is made of oak plank six feet long, 20 inches wide, and four inches thick. The head is first removed and laid aside to be attended to later. The hog is then laid squarely on his back and split down the center of the backbone. I cut down the thick meat which is cut true and smooth with a large sharp knife. One-half the carcass is laid aside, and the "leaf" or kidney lard, is removed, then the spare-rib is taken out, care being taken to cut smoothly without haggling, and to take neither too much, nor too little meat on it. Spare-ribs can be too large, and they can be too spare.

All the backbone is removed with the spare-ribs, then cut from the ribs and kept for roasting and eating fresh—unless there are too many inch pieces. There is a small strip of lean meat clinging to the back-bone, called the "tenderloin," which should be removed as it is very tender and sweet, making it a great delicacy. The ham and shoulder are next removed, and modeled in fine oval form for handsome appearance. Clippings from these are laid aside with other scraps for sausage. The side pork clear of bone, is cut in strips about five inches wide extending from back to belly. The thick pork along the back being nearly all fat, is separated from the bacon and salted by itself. The thinner pieces of the side pork are the bacon, and should be salted with the ham and shoulder.

Hams, shoulders, and bacon are put into a barrel by themselves.

Formerly we used oaken barrels but the hoops frequently rotted and the barrels got to leaking the brine off. We now prefer to use large earthen jars holding 25 or 30 gallons. They are more easily washed, never leak, and will last a life time. The heavy pork is packed as solidly as possible and given all the salt it will take, and more salt is crowded into every crevice and aperture. The hams, shoulders and bacon are salted only enough to suit the taste. They are put into a brine made as follows: Eight pounds of fine dairy salt, two pounds of brown sugar, two quarts of New Orleans molasses, and two ounces of saltpetre, dissolved in four gallons of water for every 100 pounds of meat. Make enough in these proportions to stand an inch deep over the meat. To keep the meat from floating put a clean flat stone on top. Ham and shoulders weighing not more than 18 pounds will be thoroughly salted in six weeks (if needed to be smoked and eaten then), or can be left in the brine until spring, as they will get no saltier. Dairy salt is used because it is pure, and dissolves quicker, requiring less time in stirring.

Pennsylvania. J. W. INGHAM.

There is no poltroon in the world but can brag about what he would have done.—Thackeray.

What Is a Cow Worth?

By W. F. RAVEN

THE items in this article were taken from data gathered by Mr. F. T. Riddell, under the supervision of Prof. A. C. Anderson, of the Experiment Station of the Michigan Agricultural College, from twenty-five herds, consisting of 444 cows. This data was taken during the years of 1914 and 1915, from herds in the vicinity of Grand Rapids, Michigan. These herds were producing market milk. The factors entering into the production of market milk are so nearly identical with the factors in the production of all clean milk, that the data is considered authentic for the production of all milk.

There are items that will vary on the different farms—in fact, do vary. This data gives the costs and production of the average cow of the 444 for two years. The following are the average fixed charges per cow per year:

Man labor per cow per year....	\$28.43
Horse labor and handling milk....	15.15
Cash sundries, (articles used within the year).....	1.86
Veterinary services.....	.93
Charges on buildings.....	9.57
Charges on equipment.....	.50
Added earning power.....	6.00

Less manure (11% tons at \$1.50 per ton).....\$17.50

Interest, Taxes and Depreciation Charges on Investment in Cow.

Interest on cost at.....6 % per year	
Taxes on cost at.....1 % per year	
Depreciation on cow at.....10% per year	
Total.....	17% per year

To Determine the Value of a Cow.

To pay 10 per cent depreciation and one per cent taxes and six per cent interest on investment. Calculations based on 3½ per cent milk at \$2 cwt.

When Feed Consumed Amounts to

Value of Cow is	\$40	\$50	\$60	\$70	\$80	\$90	\$100
lbs. milk	4757	5257	5757	6257	6757	7257	7757
60	4842	5342	5842	6342	6842	7342	7842
80	4927	5427	5927	6427	6927	7427	7927
90	5012	5512	6012	6512	7012	7512	8012
100	5097	5597	6097	6597	7097	7597	8097
150	5522	6022	6522	7022	7522	8022	8522
200	5947	6447	6947	7447	7947	8447	8947
300	6797	7297	7797	8297	8797	9297	9797
400	7647	8147	8647	9147	9647	10147	10647

This table is based on \$2.00 per cwt. per 3½ per cent milk. How is the value of the cow determined? Suppose you had a cow that cost \$60, and she ate \$70 worth of feed in one year. You would, to determine the value of the cow, multiply \$60 by 17 per cent, which will equal \$10.20—the amount of depreciation, taxes, and interest on the cow. Add to this the cost of feed for the cow for one year; also the fixed charges—\$10.20 plus \$70 plus \$62.44 equals \$142.64, the total cost of the cow for one year. From the cost of the cow, we will deduct a credit for manure at the barn, of \$17.50 (11% tons at \$1.50 per ton), which will leave \$125.14. Dividing this by \$2.00, the price of milk, we get 6,257, the number of pounds of milk the cow must give to be worth her cost of \$60.

This data enables the dairyman to take a very close inventory of the cows he may have to feed and care for this winter, or any other time.

Example.—A cow giving 6,927 lbs. of 3½ per cent milk, eating \$80 worth of feed. How much is she worth? Multiplying the number of pounds of milk by \$2.00, the price per cwt., gives \$138.54 as the gross proceeds of the cow for one year. From this sum subtract \$80, the cost of feed, and \$44.94, the fixed charges. This will leave \$13.60, which represents the depreciation of the cow 10 per cent; taxes one per cent; interest on the investment six per cent, or 17 per cent of her value. Dividing \$13.60 by 17, we get one per cent of the value of the cow, or .80. Multiplying by 100, we get the value of the cow, or \$80.

This data can be used in every case, no matter what the per cent of butterfat, the cost of feed, or any other item that may enter into the keeping or handling of a herd of dairy cattle.

There is one item that is given no consideration in this article; that is, the increased value of the progeny of a pure-bred cow.

This year, considering the exceedingly high cost of feed and labor, it would be well for every dairyman to ask the question of each of his cows: "What are you worth?" and find out, and abide by the result.

With the hope that this article will help the man who has cows to be better able to know their worth, their profit or loss, is the reason it was written.

DAIRY PROBLEMS.

Feeding Oats in Ration.

Give me a ration for 1000-lb. cows five years old, all fresh. I have silage and mixed hay; have oats but they are too high to feed so don't figure them in. Cows are pure-bred and grade Holsteins.

Genesee Co.

A. R. G.

Oats, of course, are quite high, but so are other feeds. Possibly one can afford to feed oats this year as well as any year, when we consider the price of other feeds and the price of milk, butter and cheese.

I would recommend that you fed two pounds per cow per day of cottonseed meal, and a sufficient amount of hominy feed, or corn meal and wheat bran mixed equal parts by weight, to give each cow one pound of grain for every four or five pounds of milk produced. If you wish to feed your oats use them

with the bran in place of half the hominy or corn meal. You should feed all the hay and silage the cows will eat.

A Ration Without Silage.

What grain should I feed to make a balanced ration for my milch cows, with the following for roughage? Cornstalks and alfalfa hay. I have oats and corn.

Kalamazoo Co.

W. S.

Fed alfalfa hay twice daily all the cows will eat, and cornstalks once a day. For grain, grind the corn and oats equal parts by weight. Then feed a pound of grain for every four or five pounds of milk the cows produce. This will make a good ration. As good as you can get with no succulent food. If the cornstalks were corn silage your ration would be hard to beat. Some dried beet pulp would be a good addition to the ration inasmuch as you have no silage. If this is thoroughly moistened a few hours before being fed, it makes a splendid substitute for a succulent feed.

Balancing the Ration.

I have four milch cows and I would like you to give me a balanced ration. I have cornstalks, alfalfa mixed with June grass, clover hay mixed with alsike. The cows give about four quarts of milk per head per milking.

Calhoun Co.

P. H.

If you have to purchase all your grain, I would buy bran, hominy feed and gluten feed. Mix them equal parts by weight, and feed one pound of grain per day for every pound of butterfat each cow produced in a week, or one pound of grain per day for every three pounds of milk produced.

You could, of course, balance this ration by using several other feeding stuffs, like dried beet pulp, cottonseed meal, corn meal, oats, barley, etc.

Feed hay once a day, all they will eat, and also cornstalks once a day.

COLON C. LILLIE.

INDISPUTABLE PROOF OF DE LAVAL CREAM SEPARATOR SUPERIORITY

SINCE 1892 the National Buttermakers' Association has held butter-scoring contests each year in connection with its Annual Convention; and at every such Convention, butter made from cream separated by a De Laval Separator has scored highest. This is a 100 per cent record for the De Laval. Twenty-three wins out of twenty-three contests. No room for chance there. Only unusual merit made such a record possible.

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The juries at the great national and international expositions have invariably acknowledged the superiority of the De Laval. They awarded the Grand Prize to the De Laval at the Panama-Pacific Exposition, as also at Buffalo, Chicago, St. Louis, Paris, Brussels, and all the great world expositions for 25 years.

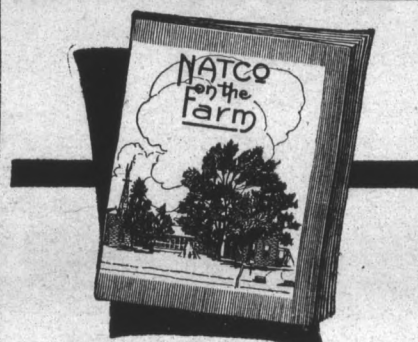
As a matter of fact, it is very easy to prove De Laval superiority. All that is needed is a careful comparison with any other machine, either as to design and construction, or, more important still, as to performance. But such proof is no longer necessary to a well-informed dairyman or farmer. He has seen proof of De Laval superiority piled up and multiplied so many times that it is no longer open to question by anyone. It is an accepted fact.

If you are without a cream separator or need a new one, the only question you need to ask is, "Which is the proper size De Laval for me to buy?"

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Magazine Section

LITERATURE
POETRY
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INFORMATION

MICHIGAN FARMER
AND *LIVE STOCK* JOURNAL
PUBLISHED WEEKLY
ESTABLISHED 1843.

The FARM BOY
and GIRL
SCIENTIFIC and
MECHANICAL

This Magazine Section forms a part of our paper every week. Every article is written especially for it, and does not appear elsewhere

NEW YEARS is the regal day of all the months. The kingly spirit of optimism is then abroad. His inspiring exclamations of cheer, and comfort, of protection and prosperity, of love and good will become music to every heart.

It is the day we forget the past. Old things are gone. What has been has been, and the grave is covered; our eyes see the future with its possibilities. The discouraging experiences of yesterday cannot hold us on this day. The armies of the soul break through the entangled lines of discouraging memories and hopefully face new and unconquered territory.

Despite the elements it is a day when the eyes behold with wonderful

clearness. The light of hope and faith are mirrored onto the future. Things once lost to sight reappear in novel dresses, and the vision of a new order prods our enthusiasm and our ambition to purpose higher achievements.

This is a day for making calls and social visiting. Washington Irving aptly said. "Tis the annual festival of good humor—it comes in the dead of winter, when nature is without charm, when our pleasures are contracted to the fireside, and when everything that

New Years Day

By ALONZO L. RICE

unlocks the icy fetters of the heart, and sets the genial current flowing, should be cherished, as a stray lamb, found in the wilderness, or a flower blooming among thorns and briars."

The day has been an attractive theme for poets on account of its hilarity, and also because it fitted easily in a moralizing vein. The first day of a new year is necessarily suggestive of the last day of the old year and the two together are rather suggestive of serious thoughts. New Year's day

poetry generally takes this turn. Ella Wheeler Wilcox in "New Year's Resolve," says:

"As the dead year is clasped by a dead December,
So let your dead sins with your dead days die.

A new life is yours, and a new hope; remember

We build our own ladders to climb to the sky.

Stand out in the sunlight of promise, forgetting

Whatever your past hold of sorrow or wrong;

We waste half our strength in a useless regretting;

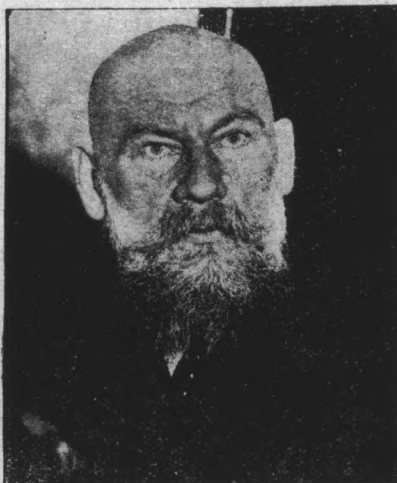
We sit by old tombs in the darkness too long."

The juxtaposition of the old and new is so obvious that anyone who writes on the subject is likely to fall into a

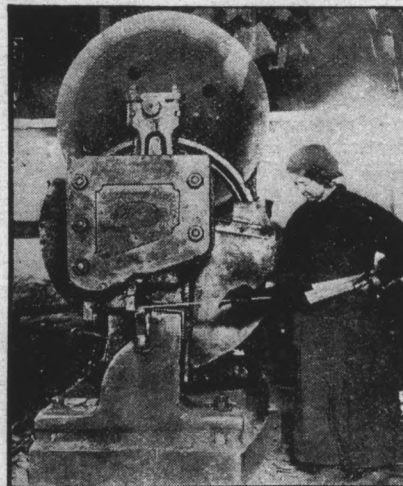
WORLD EVENTS IN PICTURES



Loading Supplies at New York for the Suffering Armenians.



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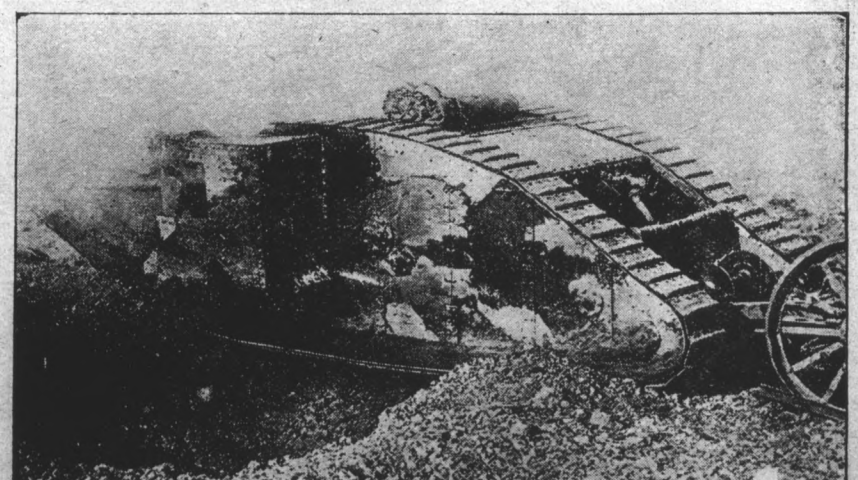
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One of the Giant Armored "Tanks" Used by British on Western Front.

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moralizing strain, comparing or contrasting the old with the new. Almost invariably the theme is: "Speed the parting, and welcome the coming guest." Mankind, generally speaking, is glad to be rid of the old year and to welcome the new year. That seems to be human nature and the poets voice the idea. Thus one sings:

"Ring bells from every lofty height!
An infant year is born tonight;
Ring far and wide, ring full and clear,
To welcome in the glad New Year.
The king is dead; long live the king!
They said of old, and so we sing,
The Old Year has gone to his repose;
There let him rest beneath the snows."

Someone has defined gratitude as "a lively sense of favors to come." The eagerness with which the New Year is welcomed indicates a general expectation of good things to come, but the indifference with which the old year is dismissed hardly confirms the expectation. However, the revival of hope in the breasts of men on New Year's Day is of no small significance in the world's progress.

A Holiday Legend

By LULU G. PARKER

ONCE on a time when the earth was young, a Christmas hymn that an angel sung was heard in Mars, or some other sphere, where live a folk whom earth-folks think queer. The other-sphere men puzzled long to find the meaning of that song. Until a king with enquiring pate agreed to come and investigate.

The king came down on his wing-planes queer, at just the Christmas time of the year. He dropped at first on a battle plain where shrapnel fell, like a molten rain. He poked his nose in a hospital tent and asked a soldier what Christmas meant. "It was holiday before this war, there is no Christmas any more," said the bandaged one—"Except over-sea, they may keep it in the land of the free." The astral man packed his wing-planes queer in a submarine, and he came over here.

Himself unseen, on a city street, he watched the folks with hurrying feet. For Christmas shopping 'twas getting late, and some were carrying loads of freight. "Why do you thus?" the Martian asked an oldish man whom he stopped at last. "All Tommy-rot, sir," the old man cried, "Most wasteful time of the year beside. I've bought my wife a pearl tiara, for nothing less would do for Sarah, I'll go bankrupt, I am sure, worse luck, before I pay for the Christmas truck." Before the Martian could ask him more, his car he cranked, and away he tore.

A woman young, but with dragging feet, and drooping head, came along the street. "Explain to me," begged the astral man, "What Christmas is, just the best you can." "For weeks," she said with an angry stare, "I've stood all day in a shop back there, slaving from morn 'til the night is late to sell to folks that would celebrate. Believe me, sir, if I had my way, there never would be a Christmas day."

The sphere-man walked half a mile or so, then paused to gaze in a bright window. A woman clad in a gown of lace, that illy matched her impatient face, stood by a table with gifts piled high appraising them with a practiced eye. From where he stood he could hear her say—"Why did I send that vase yesterday? It cost me quite fifty cents or more, she bought this thing at the ten-cent store." The sphere-man scratched his surprised old head, "Earth folks are queer," to himself he said.

The night sped on while he interviewed the people cross, and the sad and rude; and still upon earth inspection bent, dawn found him in a poor tenement. Unseen he watched where a woman sad sat by the cot of a little lad. Upon the bed a poor cheap toy lay; the child awoke; it was Christmas day. The child awoke shouting with delight. "The giving time," he cried,

New Years Day on a Michigan Farm

By E. C. LINDEMAN



It is winter in Michigan,
The snow lies deep over the meadows.

* * *

I heard the boards on the back porch snap

As John went out to the chores.
I followed him to the barn
Because I wanted to hear the cows
Crunching their breakfasts
In the saug stables.

I helped with feeding and milking.
The sound of the milk striking the hol-
low pails
Made me think hard—of far-away
music;

But we didn't talk.
It was the beginning of a new year—
The twenty-sixth since we signed the
mortgage
And started farming it together.

* * *

Many and John, our children, are home
for holidays.
They are still asleep.

* * *

Now we are all at breakfast.
The men are talking about the twenty
acres of wheat
Out under the snow.
And about how long the Holsteins will
feed

On the frozen corn that had to be cut
for the silo.
Father has agreed to lime another ten
for alfalfa

In the spring.

They seem all excited about some
thing or other—

Oh, it's the new tractor that's coming.
And, just as I brought in the last plate
of hot cakes—

(They happened to be good this morn-
ing)

Mary asked all about the Leghorns;
Were they still laying, and
How many would we set this year, and
Did the honeysuckle vine that she
planted

By the house-corner live?

* * *

When the batter was all used up
We were still talking.

* * *

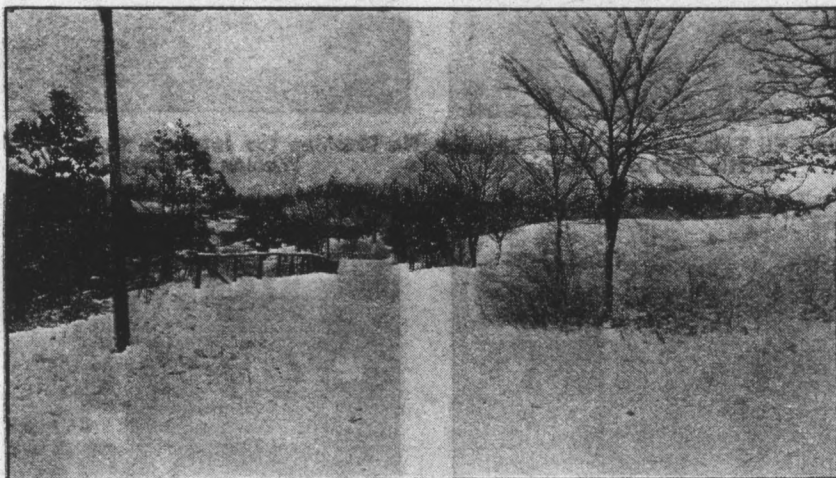
It took the two Johns a long time
To hitch Nellie to the cutter;
But now we are following the neigh-
bors

To the little white church for exer-
cises.

And we haven't talked about
The August frost, the late blight,
The eternal mortgage or even the aw-
ful war.

The church bells,
The sleigh bells,
And the bells in my heart
Are ringing together:

"New Year"
"New Year"
"Snow in the meadows"
"New Year"
"Wheat under the snow"
"New Year"
"New Year!"



"Came last night." I've thought, moth-
er, what to give to you, I'll give you
ME. Tell me, will that do?" The love-
light shone on the woman's face, and
sadness fled from the shabby place.
The listening Martian heard her say—
"Who giveth love with his gift, alway
to him each day is a Christmas day."

The astral man oiled his motor-
wings. He ceased to ask about earthly
things. He sailed in haste for his own
home-sphere to start a fete that should
last a year. But e'er he started the
holiday, for he was king and could
have his way, he put a law in the sta-
tute book, where everybody who ran
could look—that none could have in
Christ's mass a part who did not have
a loving heart.

And to this day, in Mars, or here,
the poor, the rich, the child, the seer,
they only truly celebrate who in their
hearts observe the fete. Who lose all
thought of greed and pelf, and to their
loved one give themselves. For gifts
must come from a heart love-warm,
else Christmas day is an empty form.

GREAT POSSIBILITIES BEFORE THE RURAL CHURCH.

The social center church is now de-
manded in the country. There are few
societies or organizations in the aver-
age country community. Casual meet-
ings are of an individual nature. There
exists too little community sense or
consciousness. The tendency now is
to go to town for amusement, enter-
tainment and, often, for instruction.
The countryside, as far as social life
and service are concerned, is too often
left a barren waste.

People crave companionship, they
like to be together. Therefore, they
need some common meeting place for
work and play, for sociability, for edu-
cational and spiritual uplift. Let the
country community forget its church
differences for a generation and em-
phasize the fatherhood of God and the
brotherhood of man and give opportu-
nity for the cultivation of a brotherly
service and the country church will be-

come a real social center and a tre-
mendous force for righteousness and
better living. Country folk live on
about the same social plane and have
interests in common. With inspiration
and incentive from the church the so-
cial life will be broadened and will not
get out of joint with religion. Fel-
lowship will develop and a wholesome
community pride and spirit will be
fostered.

It is nonsense to say that social ed-
ucational and industrial activities cen-
tering in the country church will de-
tract from religion and lead to world-
liness. Social service tends to give life
and reality to religion. Church life and
business will drag and become insipid
unless the gospel of social service is
preached along with the gospel of sal-
vation. Country preachers and lead-
ers must inculcate community ideals
and set country people working togeth-
er at the task of building up the com-
munity in the things that make for a
more abundant life.—Mr. Kiehl.

A NEW YEAR'S SUPPLICATION.

BY CHARLES H. MEYERS.

Another lap in life's swift marathon,
Wherein each faithful runner wins a
prize,
We start today; and as we struggle on,
Friend, let me oftentimes look into
your eyes!

DECEMBER WOODS.

BY F. J. YATES.

The leaves have long since left the
trees,
The air is crisp, the wind is blowing;
Between bare ice edged banks the
brook,
Blue tinged and chill, is slowly flow-
ing.

Where violets peeped on yonder slope,
That slope with mold is matted over,
The flower children of the spring
Sleep sound 'neath Mother Nature's
cover.

Where zephyrs soft made music sweet
Among the gently whispering bow-
ers
Of rich green leaves, the dreary wind
Swift through the grating branches
scours.

Once grassy paths are frosty hard,
The squirrels crossly chip and chat-
ter.
I tread the rustling leaves and call
My dog, who comes with muffled
patter.

We cross the brook, we leave the wood,
The chill lies heavy on each member.
My dog, paw lifted, whimpers low,
His days are dun in dull December.

I glimpse a cozy ingle nook—
Dear book friends, slowly dying em-
ber—
Ho, comrade! what though woods be
dull?
There's compensation in December.

LITTLE FEATHERED FRIENDS.

BY FLORA G. TENNANT.

Why such haste to from me wander.
Little feathered friends?
Tarry just a little longer
Little feathered friends.
Soon 'neath skies so dull and gray,
I will watch for you in vain,
You will then be far away,

All the long, bright summer days,
Little feathered friends;
I've enjoyed your merry ways,
Little feathered friends.
Now the days of fall are here,
You alone do bring me cheer,
Little feathered friends.

Still I know that you must go,
Little feathered friends;
Far from lands of cold and snow,
Little feathered friends.
And I fear on some bright shore
Where no sullen breakers roar
You'll forget, and come no more,
Little feathered friends.

But though you come not again,
Little feathered friends;
In my memory you'll remain,
Little feathered friends.
For when faithless friends forgot me,
Many a joyful hour you brought me,
Many a lesson you have taught me,
Little feathered friends.

"Mister 44" By E. J. RATH

The Substance of Previous Chapters.

Sadie, a wholesome country girl with limited social and intellectual opportunities, leaves the farm home in Ohio and seeks her fortune in Buffalo, where she finds employment in the shipping department of a shirt factory. The strength of many of the girls working with Sadie was being overtaken by the excessively long hours and the steady application to their tasks. Against the strict enforcement of unjust shop rules, and stern demands of the corporation, our heroine courageously protests, for which she is fined by the foreman. Becoming convinced that behind factory walls is no place for a spirit like hers, she hopefully resigns herself to fate by pinning a letter applying for an outdoor job, in the pocket of a No. 44 shirt going to fill an order from Arizona, but before she could remove the letter, the foreman hastily gathers the shirt with others, to satisfy a rush order, from where she was unable to learn.

Along the Northeast arm of Deepwater Lake, in Northern Canada, Stoddard, a young but capable engineer, whose home was among the select of New York City, and who had been entrusted by his company with the erection of great bridges on almost every continent, paddles a loaded canoe carrying his city friend, Larry Livingston, who was suffering from poor health, to an island far from communication with the outside world. Stoddard unloads, erects a tent, builds a fire, and after they eat puts Larry to bed. In hunting for matches he pulls his finger against a pin in the pocket of his shirt and discovers Sadie's letter. This he reads and after much re-

flection answers it. He leaves Larry sleeping, and tortured with the thorns and bruises received in a wild and dangerous trip, he finally delivers his letter to an Indian friend who posts it on the train. The letter is handed to Sadie as she leaves the factory, having been "fired" by the foreman. At her room she thoughtfully considers Stoddard's reply and concluding to hazard the chance of securing a job at Deepwater notifies him by telegram of her coming and prepares to leave the next day. Stoddard's Indian friend gets the telegram and skillfully maneuvers in its delivery to avoid arousing Larry's curiosity. The Indian then persuades Larry to take a fishing trip that Stoddard might be free. Stoddard, alone and baffled at how he would handle the situation, concludes to paddle to Deepwater Station and on the way decides that the girl must take the south-bound train back. The north-bound and south-bound pass at this point, and there would be a second in which he could hurry her from one train to the other. He carries out his plans, only to find that Sadie had gotten off at the Lower Station and that he had unceremoniously forced an unknown and unwilling lady onto the platform of the south-bound as it was moving out. Two hours later Stoddard reaches the Lower Station and finds Sadie enjoying nature even under the cover of darkness. He decides that the only course is to get his charge to the hotel on Deepwater Island ten miles away. Enroute they encountered a storm which broke with sudden fury and put Stoddard to the great test of his life.

But the girl was so much dead weight. She could not even paddle. There was no turning back to the shore they had left; there was nothing to do but drive ahead.

"All right up there?" he called.

"All right!" answered Sadie, turning her head in order to fling the words at him.

"It's going to blow some!"

"It's blowin' now."

"I mean it'll blow harder. You're not frightened?"

"Ought I to be?"

"No!"

"If you say so I ain't, then."

The hotel lights were now shrouded effectually by the dark mist of rain. Minute by minute the sea rose as the wind laid its grip on the lake. The farther they ran with it the more there would be, Stoddard knew. Yet the only thing to do was to run.

For several minutes he kept the bow of the canoe pointed, as nearly as he could guess, to the hotel on Deepwater Island. The seventeen-foot craft was pitching now, alternately lifting her bow at a sharp angle, then raising her stern as a wave, thrusting from behind, urged her forward at racing speed.

But it soon became apparent to Stoddard that he could not long hold this course, for the roll of the sea was quartering upon him, so that in addition to the pitching the canoe was rocking from side to side, giving her a corkscrew motion.

He stuck it out as long as he dared; then permitted the bow to fall off until he was headed dead before the wind and sea. The corkscrew plunges ceased, but the pitching became more violent each moment.

"Keep your weight as low as possible!" he called to Sadie. "Lie out straight."

Sadie obeyed as literally as she could, but her head was still supported by the forward thwart.

"Can't I paddle, too?" she shouted.

"No! Lie still."

Straight down the South Arm they were running now, as nearly as Stoddard could figure. Their course would not touch Deepwater Island, yet he had no choice of direction. The ever-increasing wind drove them at a speed he could not himself have attained in

quiet water. He was putting little weight in the paddle now; he did not dare. Steerage was all his craft would stand in that sea.

Presently what he had been fearing happened. A sheet of spray, whipped from the top of a wave by a gust, flung itself aboard, leaving half an inch of water in the bottom of the canoe. It was followed a minute later by another, then a third.

Once, when a crested roller lifted the stern as if it were a feather, he thought the canoe was going to dive head foremost into the hollow ahead. He managed to check the rush with his paddle, but a gallon or so of water shipped itself.

Already he could feel the light vessel acting sluggishly. The water she had taken was rolling alternately forward and aft, throwing added weight where it ought not to be. And there was no hint of a let-up in the gale. Nor did he expect one; this was no thunder-squall that would whip itself out in a few minutes. Stoddard was becoming anxious.

Steadily and ominously the down-pour from the black sky added to the water that was coming aboard from the lake itself. When the bow lifted Stoddard found his legs enveloped inches deep in the swash that rushed sternward. He shook his head and muttered something.

"Bail some of this water out!" he yelled.

"What with?"

Although Sadie shouted the question, the words came to him faintly, as if from a great distance.

"Your hat!"

It was a flimsy straw affair, he remembered, and he had little faith in it; but there was nothing else.

Sadie tore it from her head and went to work awkwardly. For a while it seemed that she was gaining a little; then her work was undone by two waves whose crests came aboard in rapid succession. The canoe began to act like a water-logged ship, rising reluctantly, settling as if each dip would be her last.

Stoddard groped in front of him with one hand and laid hold of Sadie's grip. With a quick toss he sent it over the side. The girl heard the splash but did not understand.



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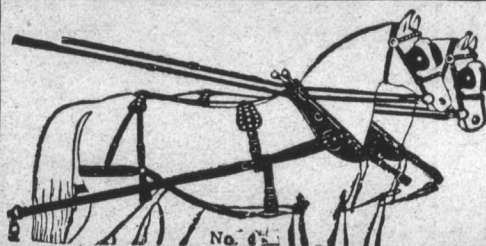
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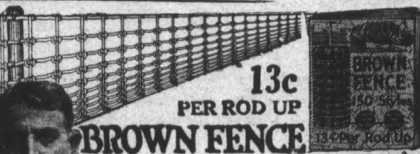
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"I chucked your grip over!" he shouted.

For an instant the feminine instinct in Sadie leaped to the surface. She uttered a little cry of dismay. Her new things! Gone! Then she fell once more upon the hopeless task of baling with her hat.

"Good-by, wardrobe," she murmured.

The grip served to lighten the canoe only momentarily, for in mocking assertion of its mastery the gale promptly sent aboard an equivalent weight in water.

It was but a question of minutes now, Stoddard realized. He had no hope that they were close to any shore; the size of the seas that hurled them onward forbade that. He knew also that they were far past Deepwater Island, yet too nearly in the center of the South Arm to have much chance of striking one of the islands that lay below it.

And what of Sadie? His weight of guilt for having lured into the woods-country he felt growing heavier and more oppressive.

"Got that ulcer on?" he cried.

"Yes," came the answer.

"Take it off!"

Sadie obeyed, yet without understanding.

"Throw it overboard!"

Again she obeyed.

The weight of the thing did not count so far as the canoe was concerned. But Stoddard knew it would count disastrously in the event that could not be long delayed.

Not alarmed, are you?" he shouted.

"I'm past that. I'm only scared stiff."

"Well, stop it."

"All right; I will."

In one thing the Fates were kind to Sadie. She was scared, as a matter of course; yet she did not fully realize their plight. It was a condition too utterly unfamiliar to impress her with its significance. She knew that it was wet and dark and stormy and that somehow, where she ought to be sitting in a dry boat, she was crouched in a pool of water several inches deep.

But against all these things she set something else—Mr. 44. She would stake her life that he was not scared. Whatever he told her to do she would do—because he knew! He was big and strong—perhaps as strong as the storm itself.

So whenever she felt a spasm of fright clutch at her heart she thought of the man in the stern-sheets. Sadie had faith.

Presently he ceased paddling and crawled forward in the canoe.

"You're to do anything I tell you," he commanded sternly.

"Why, sure."

"Can you swim?"

"Not much. Not in this rig, anyhow, even with the new slit in the skirt."

"Well, you won't have to. But this canoe isn't going to carry us much farther. Too much water. When it fills we've got to get out of it and hang on to the sides. It'll float."

"All right."

"I'll take care of you. Don't worry. Don't scream. Don't get your mouth full of water!"

"No sir!" answered Sadie mechanically.

A moment later she felt Stoddard's powerful hand gripping her by the arm.

"Here we go!" he called. "Keep your mouth shut."

Very gently the canoe settled down into the lake until its gunwales disappeared below the surface. Stoddard was clutching a thwart, however. As the water rose to their waists he flung Sadie sidewise and leaped after her. But he did not release his grip on the canoe.

Relieved of its burden, it reappeared in a few seconds, a mere outline on the surface, yet floating.

"Take hold of the edge," he ordered. "Hold tight, but don't try to climb up. Just keep your head out. That'll be enough."

Sadie obeyed without answering. She remembered his injunction to keep her mouth shut.

Having made sure that she was gripping the gunwale with both hands, Stoddard began to work his way along the edge until he reached the stern. Then he came back on the other side of the canoe, hand over hand, until he was opposite to her. This accomplished, he reached across, closed his fingers about one of her wrists, and set them in a powerful grip.

"Now we're all right," he said. "We can't sink."

"No, sir," said Sadie.

It was blowing harder than ever. Often a wave swept over their heads, but for the present Stoddard knew they were secure. What worried him now was their lack of progress. They were moving, it was true; but not nearly so rapidly as when the canoe floated. Their speed was merely that of a drifting log.

"Cold?" he asked her after several minutes of silence.

"No; this ain't bad," she answered.

"It won't be long now," he assured her.

"Sure!"

Stoddard presently became aware of the fact that the rain had ceased, although there was not the least lessening of the gale. He turned his glance in every direction, seeking a glimpse of the hotel-lights, but failed to find them. Waves that rose about him limited his vision, while the canoe failed to rise upon the crests, but lurched soggy through them.

Occasionally he talked to her, trying to make his voice confident and cheerful. She answered him in monosyllables, faithfully trying to follow his instruction not to swallow the water that beat into her face and sometimes swept over her head. But often the answers came chokingly.

Half an hour passed thus. Stars were shining overhead, but the lake remained foam-lashed. Stoddard's arm—the one that gripped Sadie across the canoe—was becoming numb from the pressure of the gunwale across which it lay, but he did not dare ease it. His fingers were locked upon her wrist like bands of iron.

"You're a brick, Sadie!" he called to her.

She did not answer, but she smiled, although he could not see that. He had called her a brick. That came pretty near making it all worth while.

His glance strayed behind him and became fixed upon a black mass that slowly began to shape itself against the darkness. Solid earth! Perhaps it was only an island—yet it was earth.

Would the drifting canoe reach it? He watched steadily. Yes; they were slowly shortening the distance. There was nothing to do but wait. Nearer came the black shape. He could make out trees now, bowed under the weight of the gale. The canoe drifted on with a sodden, maddening lethargy.

"We're going to reach land soon!" he shouted.

"That's good," she answered.

Five minutes later Stoddard's hopes received a shock. They would not reach it if they remained with the canoe! They were drifting past it. Already he could see the shore-line curving away beyond the point opposite them. He turned his glance to see what might lie in the course they were being borne upon. There was nothing but tossing water.

"It's that point or nothing," he muttered to himself.

Distances at night deceive, yet Stoddard was sure that not more than seventy or eighty yards separated them from the land.

"There's land there!" he cried, pointing. "But we've got to swim. The canoe won't go any nearer."

"You swim," said Sadie in a tired voice.

"Both of us," he said sharply. "Wait till I get hold of you now!"

He fairly dragged her toward him across the canoe, which sank momentarily under her weight.

"I'm a bum swimmer!" she gasped. "You go ahead. You'll make it all right."

"And leave you?"

"That'll be all right. I'll keep hanging on and maybe I'll reach another piece of land—by and by."

"You'll come with me!" he shouted savagely. "You'll reach that land—over there! Understand?"

"I'll try," she whispered. "But it ain't a square deal for you, No. 44."

He pulled her clear of the canoe, hooked one hand firmly under her arm, and struck out toward the nearest point. Sadie tried to help, but her skirts hampered her legs, while her arms were weary from clinging to the canoe. The waves choked her, too, and the spray that flew into her eyes blinded her.

There were minutes when Stoddard was convinced that they would never make it. Alone, it would have been easy for him. But Sadie was heavy and inexperienced, although she obeyed to the letter his warning not to clutch at him, whatever happened.

The slowness of their progress was agony. Yet they gained, little by little; sometimes a foot at a stroke, sometimes only inches. His number arm bothered him and the seas that constantly washed over them made it difficult to breathe.

Twenty feet away was a rock upon which the waves were breaking. Now the distance was cut to fifteen, now to ten. His heart was pounding furiously and his lungs felt as if about to burst. But only ten feet! He could not fail now.

His fingers, clutched for a grip as a wave threw them heavily against the shore, and after an instant's groping lodged themselves in a crevice. For several minutes he clung there, gasping. Then painfully he began to lift his burden out upon the rocks. She was limp in his grasp and could not help him. It seemed to Stoddard that it was an interminable undertaking. Yet he achieved it. Then he climbed slowly up beside her.

Resting for an instant, he stooped and lifted her in his arms. The rock sloped upward toward the woods. He staggered forward, mounting the short rise until his feet touched soil. His foot tripped and he fell heavily, clinging to his burden.

Stoddard lay panting for several minutes beside the quiet figure of Sadie. When he struggled to his knees he seized her hands and began chafing and slapping them.

"Sadie!" he called, bending over her.

He caught a murmur from her lips.

"We're all right, Sadie! We're ashore!"

"Thanks, No. 44," she whispered.

CHAPTER X.

Sadie Has "Some Outdoors."

Several minutes later Sadie sat up and began pushing back wet tresses from her forehead. The silky masses of her hair, now sodden and dripping were loosed and falling about her shoulders in disorder. She sighed as she realized the task that lay ahead of her. Her comb was in the grip, at the bottom of the South Arm.

"Feeling better?" asked Stoddard.

"Lots. I sort of caved in, didn't I?"

"You stood more of it than I believed any woman could," he answered quickly. "And a lot of men, for that matter."

"I tried to keep my mouth shut, as you said," she observed. "But once in a while I forgot. I did swallow some water. I'm glad it wasn't salt."

"Cold?"

"No-o."

"Let's get out of this wind, anyhow; that is, if you can walk a little."

The point on which they had come ashore was exposed to the full sweep of the wind. Even where Sadie sat occasional showers of spray were borne

by the gusts. Stoddard reached a hand to her as she struggled to her feet a little unsteadily. Her soaked clothing hung upon her heavily, like a suit of mail. She moved her arms slowly and stamped her feet.

"Ugh! It squashes in my shoes!" she exclaimed.

"We'll be dried out before long," he assured her. "Let's get into the lee of the woods."

Leading Sadie, he began picking his way cautiously along the shore, seeking shelter from the gale, which now blew under a cloudless sky. Their path was beset with rocks, trees, and underbrush. Stoddard was almost as weary as the girl herself, but would not confess it.

A few minutes of tedious travel brought them to a spot near the shore where there was an opening among the trees. Here they halted. Although the wind swayed the branches far above their heads, screaming as it passed, little of it reached the drenched pair below.

He found her a seat on a rock and both rested again.

"By and by we can walk to the hotel I guess," she remarked.

"No walking tonight," he answered emphatically. "The going is too bad. You're going to dry out and then get some sleep."

"Here? Out in the woods?"

"Certainly."

"Say, that'll be kinda fun, won't it? I never slept outdoors in my life."

Sadie was recovering rapidly.

"Thank Heaven, I've got some matches," he said as he drew from a pocket a waterproof cylinder with a screw top. "We can have a fire and all the comforts of home."

He left her sitting where he had placed her and groped his way a short distance into the woods, seeking firewood. Stuff that will burn readily after a heavy rainfall is not always easy to find, even by daylight, with the aid of an ax. Stoddard had neither light nor ax, so it took him a long time to gather material.

But he persisted until he had carried several armfuls of dead limbs and twigs back to the spot he had chosen for a makeshift camp. It required a longer search to discover dry tinder. Tree after tree he examined with skilled hands, for his eyes were of almost no assistance in the darkness.

He was searching for a dead stump in some sheltered spot that might have been spared the deluge from the skies. Eventually he found one.

The rotted core was wet at the top, but, as he dug into it with his knife, he presently began to extract dry, powdery bits which he carefully treasured. Wringing out his handkerchief, he made a pouch of it and filled it with the precious stuff.

Then he hacked out some dry splinters. With a woodsman's memory for such details, he recalled that his supply of matches was limited to twelve. This meant that there were none to be wasted.

Back to where Sadie sat he carried the "makings" and began clearing a dry spot on the earth, tearing up wet plants and roots and scraping away soggy soil with his steel-shod boots. Then, as carefully as a watch-maker adjusting a hair-spring, he constructed the foundation of his fire.

It was a tiny affair, but it was scientific, with fine splinters laid crosswise upon a pile of tinder and larger ones built up about them, like the poles of an Indian wigwam. He worked patiently and deliberately, for a proper beginning was everything.

When Stoddard was satisfied that his handiwork met every requirement he unscrewed the lid of the waterproof cylinder. Just twelve matches he thought it contained; and just twelve matches he found that it did contain. Grunting his self-approval at the possession of a mind which subconsciously could recognize the import-

ance of carrying such details, he extracted a single match. It would be folly to try scratching it on his wet trousers or upon the damp sticks that he had gathered. He bent his head close to the little tinder-pile and jerked the match swiftly between his clenched teeth.

As it burst into a wavering, yellow flame he cupped it in his hands, nursed it for a few seconds, and carefully dropped it among the splinters so that it rested upon the pile of powdered wood. Anxiously he awaited the result of the test. He could afford more matches, if necessary; but Stoddard had a certain pride in using but one match to light any fire, an economy that stood for skill.

As the flame flickered weakly for a minute or two Sadie watched the delicate operation with the interest of a novice.

"It's an awful little fire," she commented presently.

"You were little yourself once," retorted Stoddard as he smiled approvingly upon his work; "but you grew."

"I get you," she said quickly. "I got my answer that time. I might've known."

For several minutes he did not stir from his post of watchfulness. As the flames took hold slowly he added little sticks, one at a time, after splitting them with his knife so as to expose a dry surface to the blaze. At last he nodded in a confident way.

"We'll have the real thing in fifteen minutes," he announced. "Two of them, in fact."

"Two?"

"So we can sit between them and dry both sides at the same time."

"That's an idea, too," commented Sadie thoughtfully. "I wouldn't've thought of that."

"You would if you'd been wet as many times as I have."

"I suppose so. Folks catch on to things when they have to. I been learnin' things ever since I saw you comin' down that waterfall. Outdoors ain't so simple as it looks. I guess you know an awful lot about it, Mr. Stoddard."

"What was it you called me out there in the lake, and once after we got ashore?" he asked.

"I don't know as I remember; I was kinda dazed. What did I say?"

"I think you called me No. 44."

"Did I?" Sadie laughed a little and flushed. "I suppose I did. It's the way I got to thinkin' about you before I seen you. I didn't mean nothin' by it."

"Say it any time you like. I don't mind it."

"Why, all right. It comes kinda easy; that's all."

After his first fire was well under way Stoddard built another some eight or ten feet distant. Their retreat in the lee of the woods was now flooded with yellow light, by which Sadie began to study with eager interest every visible detail, while the illumination helped Stoddard in his search for fuel. He found a log and dragged it to a point between the fires. This furnished a seat for them.

"Shoes off!" he commanded as he began unlacing his own boots.

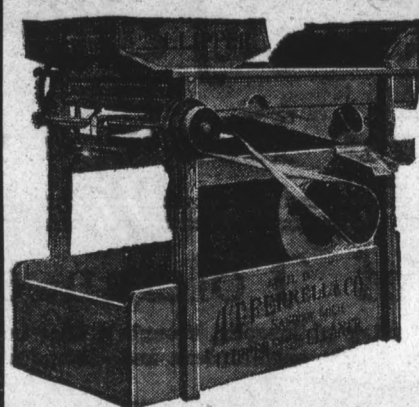
Sadie obeyed. Two pairs of stout leather foot-gear were soon steaming at the edge of the fire toward which they faced.

Sadie fell into a reverie as she watched the crackling blaze. She was rather pleased with her outdoors; she did not have a bitter thought even for the lake and the storm. It seemed that things happened quickly in the woods-country, and unexpectedly.

Back in the packing-room people did the same thing again and again, thousands, tens of thousands of times. Here she had already done a score of things, each different from the other. Each was something like an adventure, too; in fact, she was sure some of them were real adventures.

(Continued next week.)

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Woman and Her Needs

At Home and Elsewhere



The Blessing of Tolerance

ADVANCING years have their compensations, little dreamed of by hoydenish youth. And the greatest of these is tolerance. That is, it is the greatest of compensations to those sages wise enough to learn it, though a characteristic viewed with contempt by the middle aged and old folks who still maintain that only one way is right, and that, theirs.

Personally I know of no happier state of mind than that when we at last arrive at the truth that nothing in this world is all either jet black or snow white, but that everything is a pleasing gray. When we are young, say in the early twenties, we know positively that everything is either absolute good or absolute bad, that our friends are either sinners beyond beyond redemption or saints only awaiting translation. It is such a terrible thing to feel that someone we like real well is beyond the pale because he or she does not believe the right way, i. e., our way.

Some of us never do get over that way of thinking, but a goodly percentage of us learn as time rolls around and no avenging hand strikes the guilty party dead, that there is a grain of right in the other fellow's way of thinking. We begin by making this slight concession and end by seeing that he is really a good fellow after all and has climbed as high up the hill of right living as we have, although by a different road. Later we awake suddenly to learn that he is, after all, just like ourselves, a human being, neither sinner nor saint. But this is never until we have discovered that we are not quite 99 44-100 per cent saint ourselves.

That idea that everything is a soothing gray is a very comfortable one to live by. It saves you all kinds of worry and sudden frights, for if things are neither black nor white, but just a pleasing mixture, of course everything can't go to the "demnition bow-wows." They have to right themselves somewhere by an admixture of good with the bad. You never can get extreme if you adopt that color scheme, and it is only extremists who are filled with alarm when they begin to reflect on the world and its short-comings.

Of course, you can not be partisan and hold to this view, so it is a bad thing for creeds and political parties, though a good thing for mankind in general. In order to adopt the idea you must be able to see both sides to the argument, and then, of course, it follows that there is not much argument. But it saves you a lot of sleepless nights along about election time.

Just think how pleasant it would be now for the Hughes men if they believed in the theory that gray is the ruling color. Instead of being filled with forebodings, now that Wilson is really elected, and being sure that before another four years rolls around the country will be on the rocks, they would be able to look the matter fairly in the face and say, "Oh, well, there's some good in everybody. Things always have come out right in time and it's going to be all right now."

Contrariwise, if Wilson had been defeated, his followers could have consoled themselves with the thought that the republicans ran the ship of state for forty years and might, perhaps, be trusted. So you see it is a very com-

forting philosophy, though it does not make for spell-binders and champions of causes.

The suffragists and antis, too, would be much more restful, though the cause of suffrage would be delayed for some time. The suffragists would simply think, "Well, the world stood for ages without our having the right to vote, and it will worry along somehow until we get it." While the antis would simply shrug their shoulders and say, "I don't want to vote, but if I must, I must," and that would end the whole affair.

No processions, no banners, no circulars, no besieging Washington by either side. A lot of fuss saved, but meantime nothing would be done.

Think of the multitude of country churches, with underfed preachers, that would close their doors. Methodists would find out that Baptists were none the worse for a pond of water,

and Presbyterians would discover that predestination does not interfere with a free work of grace. By looking a bit closer into each others views all would discover that all beliefs are alike in fundamentals, and that the frills added by theological brethren have little to do with a clean life. Instead of a town of 400 people trying to support three preachers, we would find one man with a livable salary and a people who are willing to admit that their neighbor is a good scout and working towards the common goal.

Gossip clubs would languish and die, for the gossipers would be able to see the other fellow's argument, to get his point of view. Quarrels of a lifetime would be obliterated and fresh ones would be hard to start. Grievances would vanish, and an era of brotherly love would dawn, for all would make an effort to look through the other fellow's glasses. It's a fine good color, gray, and one that I heartily recommend.

DEBORAH.

To Help the Family to Help Itself

By MAY E. FOLEY

"To Help the Family to Help Itself" will be uppermost in the minds of the extension workers of the Home Economics Department of the Michigan Agricultural College for the coming year. This was especially emphasized by Dean Georgia White in her talk before the county agents at their meeting on November 23.

"The tendency has been to touch on the material side of the home," said Miss White. "We think of the surroundings rather than the kernel of that home, the family. We work things out for an average family and think we know what the average family ought to be. There is no such thing as an average family. We should not set the limitations upon a family but should give them things useful to their growth. We should give them a chance to develop by having an impetus, rather than by trying to train them in any particular direction and determining exactly what the results should be. We are keeping in mind the family, how to help the family to help itself rather than to tell them how to make a home.

"With these ideals in mind our projects for the coming year will be to effect improved methods of household management, to give demonstrations, to instruct in cold-pack canning process and to improve health.

"Our work will be through one-week schools to a great extent. It will then be our desire to have this school work followed up, that is, to have the worker who has charge of the school remain for another week in the community where the school is given. During the one-week school she can give general instructions, and get acquainted with the women of the community and during the following week she can help them work out their individual problems.

"We will try to affect better health through the co-operation of the State league for Nurses' Education. The Nurses' Association will co-operate with our extension work and a nurse will be sent on the last day of the school to give instruction on home care of the sick. This is a great addition to our work and where it has been tried out has met with great success.

"We think the time is ripe, partly

because of our extension work, for us to develop home economics in all the schools of our state, rural and city. This will be possible only if we are able to bring together all of the organizations in our state which are working along these lines. We are asking the state federation of women's clubs to help introduce this work into our schools, to help create a sentiment and to help finance the work if necessary. We are asking the state economics association, made up mostly of teachers, to help prepare material for simple study. The Grange we hope will give support. We want to know what the needs are in the different communities, and we expect to gain much of this knowledge through our county agents."

"The county agent has come to be a permanent feature in all our northern states, but women county agents are practically a new innovation," stated R. J. Baldwin. "Only 16 of the northern states have women county agents, although there are 400 in the south. Michigan has one, Miss Ilena Bailly, and St. Joseph is the progressive county."

"We strive to reach the farm women through their daughters," said Miss Bailey, "and we have therefore emphasized the girls' clubs more than any other one thing. We have ten girls' clubs with a total of 94 members. We have local exhibits of the work which the girls do, and some very good work has been exhibited. They are held in the school houses and have created a great deal of interest among the people of each community. An original plan which we are following out is a union school exhibit. The girls winning first, second and third prizes in the local exhibits are allowed to enter this co-operative one.

"For the older girls, home economics clubs are being organized, which take up the elementary study of home economics. Demonstrations are given and the girls plan to visit various industries in their sections.

"These clubs are on the seasonal basis, that is, each thing is taken up in its season. This keeps up the interest the year around. Poultry, health, gardening, food, clothing, canning, and home furnishings are studied.

"We try to give the farm women any information which they desire. This is done through personal visits, telephone calls, letters, meetings, and press notices. Since the first of the year I have written 63 articles for the press, and am asked to write more than I have time for. This is very gratifying, as it shows the demand for information and work of this kind."

DOMESTIC SCIENCE IN RURAL SCHOOLS.—No. 3.

"Splendid work is being done in a few of our rural schools," is the report of Burton S. Tefft, commissioner of Saginaw county.

"The following one-room rural schools have made excellent progress with garment making:

"Hill school, district No. 6, Blumfield township, Miss Nathalia Vasold, teacher; Blumfield school, district No. 1, Blumfield, Miss Margaret Hill, teacher; Shattuck school, district No. 1, Saginaw, Miss Marion Vasold, teacher; Brant Center school, district No. 4, Brant, Mrs. M. E. Curtiss, teacher; Carl school, district No. 6, Brant, Mrs. F. A. Bement, teacher.

"The work in the first three named has been directed by the teachers under the encouragement of the state leader, Miss Cowles, of M. A. C. The other two teachers have not been directed, but did the work voluntarily and merely to help the pupils of their schools. The first three and last named did some very fine work, making party gowns, plain and fancy garments of all kinds. In the first named the teacher also taught drafting and cutting of patterns, and gave a public demonstration of this work at a school fair held in her school. The Brant Center school did more of the plain house-garment making. Baking and canning were taken up by the first three schools, also with splendid success.

"We have had more or less sewing, knitting and crocheting in several schools, but those named have made the most thorough demonstrations of the possibilities of such work. Baking has been done in homes under the encouragement of the teachers, and some excellent specimens of cookery have been shown as a result. One school, Hemmeter, district No. 3, Saginaw, under the direction of Miss Alice Tripp, served hot beef soup made of beef tablets, during the cold weather for two years. This has been discontinued, but was most satisfactory while being carried on.

"Several teachers have made hot chocolate, tea or coffee for short periods, but have not kept it up for any length of time.

"Mrs. F. A. Bement, teacher of Carl school, has given some extension work in sewing for grades and in basketry. Mrs. Bement is a State Normal graduate and has had years of experience. Mrs. Curtis is a teacher with thirty years' experience. The other teachers named are county normal trained teachers and were born and raised on farms.

"The teachers doing this work have completely changed the attitude of pupils and parents toward school, and have done the work without diminishing the amount of academic study and accomplishment of their pupils. It solves the problem of discipline and

makes school a place to live and do things in.

"My only regret in connection with this work is that in none of the cases are we able to give a suitable and satisfactory school credit for such effort and results. My belief is that some form of credit should be given for this and other manual effort put forth by children, if we are to encourage and dignify labor as it should be encouraged and dignified. We are working on a plan now for giving school credit for work done out of school, and hope to be able to report some definite plan at the next meeting of county school commissioners at the annual M. S. T. A. meeting of 1917."

Miss Nathalia Vasold, tells of the Hill school, started her work with a housekeeping club.

"We organized a housekeeping club two years ago," said Miss Vasold. "The girls did the baking at home, note-book work in school, and brought samples of their baked goods to school for criticism. This led to organizing a garment-making club, according to the specifications of state clubs, and this last year we are all finished, the project which was to complete three garments and give a report and story. The girls made kimono aprons, cooking aprons and drawers. This year we make underskirt, middie and dress."

"We have a small sewing table at school, upon which we do our cutting, and a kind neighbor allows us the use of her sewing machine. Then the girls do considerable work at home. I have just arranged to get a small oil stove for my school and expect to have the girls do real domestic science by preparing hot lunches for the remainder of the children during the cold winter weather."

"I think the club work is wonderful. One never knows how fascinating it is for leader and children until it is given a trial. I have also just made arrangements for a handicraft club for boys and girls. We purchased a work-bench and a few tools. We will do this work during stormy intermissions this winter. Nearly all of the children make baskets of reed and raffia."

SHORT CUTS TO HOUSEKEEPING.

When you find your lamp chimney black and smoky inside, don't keep washing them every morning, just add one-half teaspoonful of salt to the kerosene when you fill your lamp and it will not smoke.—Mrs. J. J. O'C.

A handsome linen sideboard cover came home from the wash with the edge of the hem of one end all whipped out. Evidently the article had been hung where the wind caused it to beat against a hard surface. The edge of the entire hem was opened up all the way around and neatly turned in. A nice quality of simple Battenburg lace edging was slipped in between the edges. The pattern selected was similar to that frequently used for net curtains. With a fine machine stitch, the edging was held firmly in place after being securely fastened. The corners were neatly mitred. The sideboard cover lost nothing in attractiveness; on the other hand, it was handsomer than ever.—E. G. W.

When shredded cocoanut becomes hard and dry, it can be made as nice as fresh by steaming over a teakettle. Use when cool.—M. W.

When sewing on shoe buttons try a leather needle, which may be bought at any harness shop, and linen thread. Rips may be much more easily sewed in this way, too.—M. M. N.

I mend my leaky overshoes and make them water-tight by pasting adhesive tape over the hole on the inside of the rubber. I believe the same remedy might be applied successfully also to umbrellas or torn raincoats.—M. A. P.

Place a piece of white paper in the oven to test its heat. If the paper blazes or becomes black, the oven is too hot. If the paper becomes a light

brown in color the oven is right for pastry or the lighter kinds of cakes. If the paper becomes dark yellow the oven carries the proper heat for the baking of bread or the heavier cakes.—O. R.

If the clothespins are placed in a dripper or pan and put in the oven and left until hot the washing can be hung on the line in cold weather without getting fingers so cold.—L. T. F.

If you have no double boiler cook oatmeal in a granite basin over an asbestos mat. It makes a very good substitute.—K. T.

CONTRIBUTED RECIPES.

Potatoes Fried in Bacon.

Boil one dozen nicely peeled potatoes until nearly done. Then have ready a dripping pan, previously buttered and hot. Slice a layer of potatoes, and season them well. Cut thin strips of bacon and lay them in order over the potatoes. Add another layer and season as before, then cover with thin strips of bacon. Bake in a hot oven until the meat is crisp and well baked. Serve hot.—J. L. D.

Truffles.

When pie dough is left over, cut in thin strips about an inch wide, sprinkle with butter, sugar and cinnamon, roll up like jelly roll and bake a light brown.—Mrs. J. J. O'C.

Vinegar or Mock Lemon Pie.

Half cup sugar, one egg, one tablespoonful of flour. Stir these together until light, then take three tablespoonfuls of strong vinegar in a teacup and fill cup with water, add to mixture and stir well. Place on stove, stirring constantly until it boils; flavor with lemon extract, one teaspoonful is sufficient unless you like it strong. Pour into baked crust, cover with beaten whites of eggs, and brown lightly. Many people cannot tell this from real lemon pie.

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Some New Co-operative Moves In Michigan

By DR. W. O. HEDRICK

THE desirability of co-operation among Michigan farmers seems now well established. Once in a while one still meets with some grumbler who claim to believe that farmers should do farmers' work and middlemen should do middlemen's work, and neither should attempt to do the work of the other, even though certain benefits should result. But the number of these grumblers is growing fewer and fewer, and the merits of co-operation are now so far beyond dispute everywhere that the question of how to co-operate is at present more important than whether to co-operate.

The co-operative movement may be said to have reached the second stage of development here in Michigan and problems of organization are receiving much more attention than are the problems of co-operating or not co-operating. In brief, co-operative associations have apparently proven themselves so successful in this state that co-operators are now mending their methods and strengthening their organizations as though desirous of still furthering a thing which has proven serviceable, into a greater and better usefulness.

Circumstances under which farmers' co-operatives, whether shipping associations, marketing exchanges, or co-operative dairies are usually formed, are now familiar to everybody. Some objectionable local dealer is to be displaced or some obstacle to marketing overcome which requires the united strength of the farm community. The meeting which is called to consider these difficulties is usually worked up into a considerable warmth in considering its problems and in the midst of this enthusiasm the co-operative association is formed and since the iron is best struck while it is hot, a constitution is adopted and officers elected and the new association begins its career. It would be miraculous if mistakes were not made under these circumstances and it is usually to correct these initial mistakes that the reorganizations now so prevalent are taking place.

Where Success is Greatest.

It is a hopeful sign for co-operation, too, that it is the strong and profitable associations which are moving in the direction of improved organization. Those, for example, like the very successful grape selling associations in Van Buren and Berrien counties, or the well-to-do fruit selling associations of South Haven and Ludington are the leaders in the movement. The nineteen or twenty co-operative dairies which form the Grand Rapids federation are already scientifically organized and have commenced a movement for a state-wide federation of co-operative dairying associations.

One natural mistake which is very frequently made in the enthusiastic gatherings of farmers described above is the mistake of legalizing their organization through the use of the ordinary joint stock company style of incorporation. This is all the more apt to be the case here in Michigan because we now have no first-class law for the forming of co-operative associations and a law of some kind or another must be used. The one now in force in this state has been but little used by these associations and though adopted so recently as 1912 it already lacks many essential features which a good co-operative association law should have and it should either be amended or supplanted.

The chief defect in the joint stock style of incorporation which so many strong associations are now giving up is the worthlessness of the actual co-operation which this style of organization brings about. Actual co-operation as everybody knows, promotes the "get-together" spirit in the neighborhood and gives side benefits in the

way of cheaper supplies, craft instruction, social advantages, training in affairs and a solid control of one's business. Many, indeed, consider this side of co-operation only a little less important than the money profit side which naturally is the side most often brought to our attention. Joint stock incorporations, however, give, indeed, a miserable opportunity for this real co-operation among association members though on the other hand, they frequently turn out well from the financial successfulness which usually causes the split in the membership, a result that is certain to occur in associations of this type. The fact that the United States government, too, has put its approval upon the other style of co-operative organizations through the Clayton amendments to the anti-trust laws is a further argument for the abandonment of the joint stock scheme to most co-operatives. The merits, though, of the new organization plan are so clear and distinct by themselves that when once seen this type would be adopted whether the government gave its endorsement or not.

The old-fashioned joint stock style of incorporation is in fact an indispensable form of organization to merchants and manufacturers where much capital must be associated together into a business. On the other hand, associations of farmers are associations

AFTER THE SECOND-LINE TRENCHES.

The soundness of the principles of farmers' co-operative associations is established.

Too many successful associations are at hand to question the essentials underlying them. Leaders in rural thought have now advanced to the next problem in co-operation, that of determining the best type of organization.

This drive to second-line trenches in the great struggle for increased efficiency in rural undertakings, is clearly set forth in the accompanying article by Dr. W. O. Hedrick, head of the Department of Economics at M. A. C.

of human beings rather than associations of capital and for these the new co-operative incorporation laws offers its many advantages. The joint stock corporation laws, for example, provide that the benefits from the association must be distributed to members through dividends—an arrangement which is sure to split any co-operative association where it is tried since it makes one class of members who are favored in receiving more than the others receive. On the other hand, the co-operative incorporation law, as the type favored by government is called, provides that benefits shall be distributed through patronage and this is always a just and sound arrangement. This is a sample distinction between the two kinds of laws, and it may be taken as illustrative of the others by which, when taken as a whole, the co-operative incorporation law as compared with the joint stock incorporation law is seen to allow the members of an association to do all the things which relate to co-operation—the building up of a community spirit, the standardization of products, the productive improvement of his business and many more.

The Office of Markets and Rural Organization in our National Department of Agriculture, is soon to publish a model law for the forming of co-operative associations upon this new co-op-

erative incorporative basis. It is a law in accordance with which some of the largest co-operative concerns in the country have been organized—notably the famous Citrous Fruit Association of South California with its thousands of members. It is a law in accordance with which the numerous Michigan associations of which mention was made above, are re-shaping their organizations. It is a law which commends itself at once to any one understanding co-operation and it should be adopted by our state government so that every help may be given in the future to the remainder of our associations that they may come under its provisions.

The co-operative movement among farmers has met its worst enemies in the middlemen it has displaced, or from the railroads which would like to concentrate business in the hands of a few great shippers. But no small amount of damage to co-operation has come about from within itself. Besides the semi-co-operative associations handling farm produce, there are numerous so-called co-operative associations handling farm products that are made up wholly of a membership composed of middlemen. That these non-producers should organize shipping or dairying or elevator concerns under the name "co-operative" simply means that there is some popularity or other virtue in this name which they desire to use for their own benefit. In no sense are these farmers' co-operatives, and the use of the name co-operative in connection with farm products should be limited strictly to farmers themselves since middlemen will always regard farm products from the middlemen's standpoint.

Best Plan is Simplest.

The re-organizations of co-operatives referred to at the beginning of this paper are not hard to make if the association members really desire real co-operation. It speaks well for the new co-operative incorporation style of association that they are the kind a neighborhood desiring the simplest association possible, and still be incorporated, will naturally select when left to its own impulses. The cattle shipping associations of Southern Michigan and many others, fell naturally into this style of getting together as the most effective way of accomplishing their purposes. These, of course, therefore, will need no reorganizations.

Co-operative associations which do need re-organization must give up their capital stock shares in order to get under the new style. Stock shares are tainted too much with money dividends and capitalistic stock voting control to make a first-class basis for co-operation. In place of stock shares the control of the co-operative corporation should be taken care of by the issue of membership certificates, thus giving force to the good old democratic rule in co-operation that the "one man—one vote" policy of control is imperative.

The co-operative concern which finds itself so organized that membership certificates control its policies and patronage dividends distribute its benefits, has the essentials of the best kind of co-operation. The first of these two essentials gives an opportunity for pure co-operation devoid of any stumbling block which will cause a split in the membership through creating classes. The second not only reduces the book-keeping of the association to a minimum and avoids the need of a large working capital, but also gives patrons a quick return for their products—a benefit usually much appreciated by the farmer.

It is hardly probable that any co-operative institution will do its best in all respects until it does embody these features.

THE NATIONAL MARKETS CONFERENCE.

Elwood Mead, of the University of California, was an irrigation engineer whose mind conceived and planned some of the large irrigation projects of the United States.

Prof. Mead finds that the engineering problems, when overcome, still leave untouched that of colonization, which has not been by any means entirely successful. The land laws under these projects hope to reserve the land to actual settlers. But these settlers with small capital and with little other resources but the land, suffer severely. Lumber is high and all the expense of getting a home before returns come from the soil, makes the burden grievous and the deserted places not homes tells the story of failure. There are no sources of capital like a Building & Loan Association in cities to provide for home building. Mr. Mead advocates the United States government building modest homes and selling on long-time low interest rates, so the home-seeker can secure a permanent foothold. A community all growing practically the same products, remote from any great market, have very limited sales opportunities, and must ultimately become live stock growers to utilize the range adjoining, but this takes time and in the meantime the colonist must live. New Zealand has hastened and humanized colonization by such advances. There are no great packing houses in New Zealand, but municipal owned abattoirs where the humblest man may take one animal or a carload and have them slaughtered and meat sold, or sell his own meat. Stock is a bill of expense when shipped and the Australian finds it cheaper to pay refrigerator charges than feed bills.

Mr. Loeb, president of the Chicago School Board, interested in Wisconsin colonization practices, advocates that soil surveys be made on all lands to be colonized, and that it be illegal to sell "unsurveyed" soils. This would prevent fraudulent representations and robbery of colonists who do not know soils. Each deed should have a soil survey attached, much as a certificate of taxes paid as required by law in some states. Also, there should be agricultural supervision to start colonists along correct lines.

Colonel W. P. Holland advocated the slogan for the farm, as "information, not advice," to the farmer, and happy is he who can safely keep these lines from merging.

The distinct southern problems are the one-crop system, and with it the decline of a rural social life. The tenant in the cotton belt is about one year behind and when the cotton is sold pays up and starts in debt again. If the "cropper" were to have his own meat and bread, he would not be so bounden unto the landlord. Rural reforms are blows struck at agricultural exploitation or parasitism. Any system is parasitic, which does not give equivalent services in return and leaves the community poorer as years go by. Where the plantation system has reached the greatest development in the south, according to Prof. Gray, the Negro is the most backward. Here is found the highest percentage of illiteracy, and the Negro is most primitive and least able to care for himself. It is under these circumstances that the rural credit act cannot be applied, because there is no basis of community action. When one finds a northern district where farmers are distrustful and refuse to work together, or distrusts their own capacity, there is a duplication of the southern states tenant conditions.

The cattlemen of the great range country, these too, have their grievances. And of all people on the boundless pastures where the cattle are talked of in thousands, one would believe these were independent and creators of circumstances, but the contrary is (Continued on page 646).

SPECIAL BARGAIN CLUBS

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For the benefit and convenience of our subscribers we have arranged the following list of papers. Besides the money saved they save the trouble and expense of sending each order separately.

EXPLANATION.—The first column gives the paper's regular subscription price. The second column price is for the Michigan Farmer and the other paper, both for one year. Add 50 cents when the Michigan Farmer is wanted three years, or \$1.00 if the Michigan Farmer is wanted five years. All combination orders may be handed to our agents or sent to us, as is most convenient.

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Markets.

GRAINS AND SEEDS.

December 26, 1916.

Wheat.—Grain exchanges closed on Saturday so that no transactions were recorded from Friday until Tuesday. Improvement in foreign buying gave the trade strength at the close of last week. Peace talk, however, has been a commanding factor in the trade and hampered transportation facilities give dealers uncertain premises upon which to judge values. Following are the Detroit quotations for the past week:

	No. 2	No. 1	Red.	White.	May.
Wednesday	1.64½	1.59½	1.71½		
Thursday	1.66	1.61	1.72		
Friday	1.72	1.7	1.78		
Saturday					
Monday					
Tuesday	1.73	1.68	1.79		

Chicago.—December wheat \$1.59 per bu; May \$1.84; July \$1.38½.

Corn.—The car situation is the biggest bearish feature of this deal, it being impossible to get the grain to eastern points. Fortunately for those anxious for higher values, the primary markets are not getting shipments from producing sections so that lack of exports does not cause congestion of stocks. The week's quotations at Detroit are:

	No. 3	No. 3	Mixed.	Yellow.
Wednesday	97½	99		
Thursday	97½	99		
Friday	99½	1.01		
Saturday				
Monday				
Tuesday	99½	1.01		

Chicago.—December corn 91 c; May 91½c; July 91½c.

Oats.—There is a good demand for cash oats. High prices of other grains has stimulated consumption of this cereal and the public is drawing liberally upon stocks. Transportation is playing its part here as with the other grains and we find some sections not well supplied. Detroit quotations are:

	No. 3	Standard.	White.
Wednesday	56½	56	
Thursday	56½	56	
Friday	56½	56	
Saturday			
Monday			
Tuesday	56½	56	

Chicago.—December oats 49½c per bu; May 58½c; July 50½c.

Rye.—Market steady with last week. Cash No. 2 \$1.41 per bushel.

Beans.—Quotations are unchanged at Detroit. Little or no trading here. Cash beans now quoted at \$5.75. In Chicago values are steady with trade a little more active. Pea beans, hand-picked, are quoted there at \$6.40@6.50; red kidneys \$6.90@7.10.

Peas.—Field \$2.75@3 per bu., sacks included.

FLOUR AND FEEDS.

Flour.—Jobbing lots in one-eighth paper sacks are selling on the Detroit market per 196 lbs., as follows: Best patent \$9.10; seconds \$8.60; straight \$8.40; spring patent \$9.40; rye flour \$8.50.

Feed.—In 100-lb. sacks, jobbing lots are: Bran \$31; standard middlings \$33; fine middlings \$35; cracked corn \$42; coarse corn meal \$40; corn and oat chop \$37 per ton.

Hay.—In carlots at Detroit: No. 1 timothy \$14@15; standard timothy \$13.50@14; No. 2 timothy \$12@13; light mixed \$13.50@14; No. 1 mixed \$11@13; No. 1 clover \$10@12.

DAIRY AND POULTRY PRODUCTS.

Butter.—The market is firm with prices 2c higher than last week. Creamery extras 38c; do firsts 37c; packing stock 27c.

Eggs.—Market quiet with prices unchanged. Price, based on sales, is 38½c.

Chicago.—The feeling is easy, with quotations about the same as last week. Extra creameries are quoted at 38½c; extra firsts 37@38c; packing stock 28@28½c.

Poultry.—The market continues firm with hens lower. No. 1 spring chickens 18@19c; No. 2 do. 16@17c; No. 1 hens 16@17c; No. 2 do 15c; small do 12@13c; ducks 19@20c; geese 18@18½c; turkeys 28c.

Chicago.—Market was fairly steady generally lower. Quotations: Turkeys 12@22c; fowls 14@16½c; spring chickens 17c; ducks 17@18c; geese 14@15½c.

Eggs.—The demand is good with supplies light. Prices 3c higher. Firsts 39c; current receipts 38c.

Chicago.—Market continues steady, with fresh eggs in demand. Fresh firsts are quoted at 40@41c; ordinary firsts 35@36c; miscellaneous lots, cases included 32@40c.

FRUITS AND VEGETABLES.

Apples.—Market is firm with prices unchanged. Baldwin, Spy and King are quoted at \$5.50@5.75 for the best. At Chicago there is no change in prices, but the market is easy and quiet. No. 1 stock sells at \$2.50@6 per bbl; No. 2 at \$1.75@2.25.

Potatoes.—Demand fair, supply ample, prices unchanged. The quotations at Detroit in carlots are \$1.50@1.55 for bulk and \$1.55@1.60 in sacks. At Chicago the market is quiet but firm. Prices are unchanged. Michigan white potatoes are quoted at \$1.40@1.60 per bushel.

DETROIT EASTERN MARKET.

But few farmers were on the public market Tuesday morning. Cabbages were offered at \$1.25@2 for white and \$2.50 for red; potatoes \$1.85@2. A few loads of left-over hay was under the shed but no line on prices could be secured.

LIVE STOCK MARKETS.

Buffalo.

December 23, 1916.

Dunning & Stevens report: Receipts of cattle, 15 cars; market slow. Hogs: Receipts, 40 cars; market strong; heavy \$10.90@11; yorkers \$10.85@10.90; pigs \$9.75@10. Sheep and lambs: Receipts, 15 cars; market slow; top lambs \$13.50@13.60; yearlings \$11@11.50; wethers \$9@9.75; ewes \$8.25@8.75. Calves \$5@14.

Chicago.

Cattle were in good general demand last week, opening with too liberal receipts on Monday, when over 27,000 head showed up, these large offerings declined in numerous instances. By the middle of the week the market righted itself, and average prices were higher for most kinds. A few carloads of exceptionally choice beefs, mostly long-fed heavy steers, found buyers at \$11.50@11.75, but otherwise choice steers sold at \$10.50@11.25, with the bulk of the steers crossing the scales at \$8.15@10.25. There were no fancy steers offered of the class of Christmas beefs selling during the week of the International Live Stock Exposition and immediately afterwards at \$11.80@12.60, and the sales at \$10.50 and over comprised but a limited percentage of the receipts. A few prime yearlings sold exceptionally well, and a sale was made of 45 head that averaged 1146 lbs. at \$11.50. A good class of corn-fed steers sold at \$9.75 and upward, while a medium class brought \$8.50 and over, with sales of fair little killers at \$6.60 and upward, while canning grade steers sold anywhere from \$5@6.50. Never have ordinary cannery and cutters sold to better advantage, and the former went at \$3.75@5.10 and the latter at \$5.15@5.50, while butcher cattle were good sellers at \$5.50@8.50 for cows and \$5@9 for most heifers. One of the most striking features of the cattle market was the switching over made by the packers and other butchers from the higher-priced fat cattle to a comparatively cheap kind that could be converted into cheap cuts of beef. As is always the case just before the Christmas holidays, poultry largely supplanted beef and mutton in most homes, and large supplies of cattle at such a time would have sent prices down sharply. Calves were in fair demand on the basis of \$10@12 for light vealers, with sales down to \$4.75@7.75 for ordinary to good heavy lots. There was a very good trade in stockers and feeders at \$5@8.50, with inferior little stockers going the lowest and fleshy feeders the highest. No great number of feeders sold above \$8.10, and not many stockers sold to country buyers below \$6 the cheaper lots going largely to killers.

Hogs were in extremely large demand last week, with shippers to eastern packing points unusually liberal purchasers of the choicer offerings, and the big supplies failed to keep prices from mounting higher. With hogs of light weight still greatly predominating in the daily receipts, it was inevitable that the highest prices should be paid for well finished heavy barrows, and not enough of these were offered on the market to go around. Outside competition from shippers was responsible for the greater part of the firmness in prices in which all kinds of hogs shared, although ordinary light lots had to go at a big discount. The weight cut a figure, and even ordinary grade heavy packers sold at very high prices daily. Pigs of the best grade that were quite heavy for pigs sold at low prices. The range of prices for

hogs was the narrowest of the season. Hogs show fair advances in prices within a week, with late sales at a range of \$9.55@10.40, pigs going at \$8.75@9.40, according to weight, some inferior pigs bringing \$6 and upward. The best light hogs sold 25c below the top price, which was paid for heavy shippers.

Lambs, yearlings, wethers and ewes continue to move upward in values every week, with frequent sales at higher prices than were ever paid before. For a week past the receipts have been falling off in volume materially, and there was at times vigorous competition between buyers to secure the choicest lots. Lambs sold at \$9.25@13.40 for culls to the best lots, with feeding lambs selling at \$9.50@12.10, the best consisting of shearing lambs that required but a short feed. Until the Colorado lambs are ready for marketing there is sure to be a small supply of live muttons and correspondingly high prices. Yearlings sold at \$8.50@12; wethers at \$9@10; ewes at \$5@9.60; breeding ewes at \$7.50@9 and bucks at \$5.75@8.

Horses were in larger supply last week, and it was not always possible to maintain prices, with the moderate general demand. The principal demand centered on army horses, with the French and Italian inspectors taking hold rather freely. The lighter weight artillery horses were numerous, but there was a limited supply of the heavier ones weighing around 1350 pounds. Farm chunks were quotable at \$75@200, not many going as high as \$140, mares selling the highest. Weighty drafters were salable at \$240@285, wagoners at \$75@200 and prime expressers as high as \$210.

NATIONAL MARKETING CONFERENCE.

(Continued from page 645).

true. The great packing concerns have absorbed the profits and the cattlemen seek a thorough investigation of the packers by the federal trade commission. A. E. DeRiequeles, one of the big Pan Handle cattle raisers, says a range calf costs \$24.93, a yearling \$32.16, and a two-year-old \$56.86. A three-year-old, fed for six months on cottonseed or corn, will cost \$122.50, or 9.4 cents per pound live weight. These are range prices under the most favorable conditions, with good blood, and raised in large numbers. No better illustration can be found in the comparative small interest that the Michigan farmer has in the beef raising. The range calf is always an animal that has sucked his dam and is weaned at seven or eight months. The Michigan idea of a calf is not quite the same, hence the explanation. The cattlemen do not mince words in claiming that the big packers get an undue profit. One interesting claim is that a small packing house has every economy that the large ones have in supplying a small city with meat, and can utilize all the by-products. European travelers are amazed that the smaller cities do not have a municipal abattoir, and all meat slaughtered under inspection. It is an interesting fact that thirty years ago when Michigan beef makers were being crowded to the way, they wanted all Michigan meats inspected on the hoof. This idea was firmly held as a means to combat the big packers, but was never put in practice. The big cattlemen of the range country were unfavorable to this view, but are not averse to it now.

The thoughtless person who advises on agricultural matters always presumes to urge more economy on the part of the farmer, and better feeding and breeding. The real facts are that when all these matters have been worked out by the Pan Handle cattlemen, such advice is not only the consummate ignorance, but a false pretense as to knowledge. To repeat Col. Holland's slogan, "what the farmer needs is information, not advice." A. E. DeRiequeles furnished information which is vastly different than most of what comes under the term of advice.

Along these same lines was the information of E. C. Lassater, of Alfalfa Farms in Texas. Mr. Lassater milks 2,000 Jersey cows and is feeding 10,000 beef animals this winter. In a land where pasture is nearly twelve

months in the year his costs closely follow those of Mr. DeRiequeles. Mr. Lassater strongly declares that the federal trade commission must come to the rescue of the range cattle man.

THE STATE GRANGE CALLS MASS MEETING OF BEET GROWERS.

The sugar beet situation in Michigan has become an acute one, owing to the generally unsatisfactory conditions surrounding the growing of the crop for the past two years. As a result there are reports from various parts of the state of a demand to make the price \$8.00 per ton on a flat rate basis. The unsettled conditions are detrimental to growers, are delaying the making of contracts, and some action needs to be taken.

The executive committee of the Michigan State Grange has become satisfied by its investigations that the beet growers of Michigan are not receiving their just share of the proceeds from this important farm crop. It therefore is taking the initiative in the matter by calling a mass meeting of the beet growers of the state at the Auditorium in Saginaw on Tuesday, January 2, 1917, at 11 a. m., to consider the whole situation and adopt such measures as will secure to the beet growers the price per ton that they ought to receive, considering the higher cost of production. In the meantime all beet growers are advised not to contract until this meeting is held. All beet growers are urged to watch for the date of this meeting and send delegations to represent their respective localities.

Although the State Grange is taking the lead in this movement, yet every individual farmer and every farm organization from localities interested in the growing of sugar beets is invited to take part in the meeting.

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THIS IS THE FIRST EDITION.

The first edition is sent to those who have not expressed a desire for the latest markets. The late market edition will be sent on request at any time.

DETROIT LIVE STOCK MARKET.

Thursday's Market.
December 21, 1916.
Cattle.

Receipts 2694. Live stock was badly delayed this week and stock that should have arrived and been sold on Wednesday was not unloaded until Thursday; the railroads are in terrible shape and the snow does not improve matters. They are doing all possible but are so cramped for room it is a hard proposition and it seems to be getting worse. There will be no market here Monday next, Christmas day.

In the cattle division the market opened fairly active but on Thursday everything but canners, bulls and cutters were dull and draggy and 25¢ lower than last week. A few went back for feeding and Bray shipped 350 cows and canners to Chicago, which kept this class steady. Milch cows were dull and few good ones were in the receipts; the close was dull at the decline with quite a bunch of late arrivals going over unsold. Best heavy steers \$8.10; best handy weight butcher steers \$7.50; mixed steers and heifers \$7.75; handy light butchers \$6.65; light butchers \$5.65; best cows \$6.25; butcher cows \$5.25; common cows \$4.50; canners \$4.45; best heavy bulls \$6.50;ologna bulls \$5.25; stock bulls \$4.50; feeders \$6.50; stockers \$5.65; milkers and springers \$4.00.

Bishop, B. & H. sold Kamman B. Co. 25 steers av 917 at \$7.25; to Hammond, S. & Co. 8 cows av 860 at \$4.50; to Mason B. Co. 2 do av 1125 at \$6.90; to Bray 8 do av 947 at \$4.50, 1 do wgh 1240 at \$5.75; to Thompson 1 do wgh 1090 at \$6.25, 3 bulls av 880 at \$5.75, 1 do wgh 1160 at \$6, 1 heifer wgh 610 at \$5.50, 1 bull wgh 1060 at \$5.50, 1 do wgh 1150 at \$6.50; to Nagle P. Co. 12 steers av 792 at \$6.60, 10 butchers av 730 at \$6.25; to Sullivan P. Co. 4 do av 672 at \$5, 16 do av 947 at \$6.50, 12 cows av 1018 at \$5.85; to Bernfeldt 6 steers av 770 at \$6.60; to Bray 6 cows av 1030 at \$5.75, 9 do av 872 at \$4.75, 15 do av 1018 at \$4.75, 2 do av 785 at \$4, 1 steer wgh 1170 at \$7; to Sullivan P. Co. 7 cows av 910 at \$4.50; to Breitenbeck 21 steers av 955 at \$7.75; to Bray 6 cows av 892 at \$4.60; to Rattkowsky 7 do av 954 at \$6, 3 heifers av 977 at \$7; to Goose 8 butchers av 565 at \$5.35; to Parker, W. & Co. 5 cows av 990 at \$4.50, 2 do av 1090 at \$4.50, 1 bull wgh 1290 at \$6.50, 5 steers av 1080 at \$8, 8 do av 821 at \$6.75, 4 do av 1012 at \$8.50, 4 cows av 1047 at \$5.50, 54 butchers av 880 at \$6.50; to Allen 13 do av 876 at \$6; to Bray 28 cows av 1011 at \$5, 25 do av 874 at \$5, 17 do av 950 at \$4.75.

Veal Calves.

Receipts 832. The veal calf trade was active from start to finish, best grades selling at \$12.13; mediums at \$9.11; heavy \$6.07.

Sandel, S. B. & G. sold Thompson 9 av 150 at \$11, 4 av 135 at \$12.25, 4 av 140 at \$12.50, 2 av 110 at \$8, 2 av 270 at \$8, 9 av 140 at \$12; to Rattkowsky 1 wgh 150 at \$7.50, 4 av 105 at \$10.

Bishop, B. & H. sold Thompson 9 av 150 at \$12.50; to Hammond, S. & Co. 3 av 180 at \$13, 8 av 145 at \$12.25; to Mich. B. Co. 12 av 160 at \$12.

Haley & M. sold Tasmockey 2 av 145 at \$12.50, 22 av 150 at \$12.50; to Hammond, S. & Co. 13 av 160 at \$13, 6 av 135 at \$12, 2 av 135 at \$9.

Erwin, S. & J. sold Rattkowsky 1 wgh 110 at \$10.

Sheep and Lambs.

Receipts 5552. The sheep and lamb trade eased off a little on Wednesday but on Thursday the 25¢ decline was regained and the market was active at early week's prices; the tops bringing \$13.25. Best lambs \$13.25; fair lambs \$12.12; light to common lambs \$7.10; yearlings \$9.11; fair to good sheep \$8.75; culls and common \$5.06.

Haley & M. sold Thompson 18 lambs av 55 at \$11; to Nagle P. Co. 135 do av 75 at \$12.25; 9 do av 70 at \$11.60, 116 do av 65 at \$11.75, 85 do av 75 at \$12.75, 16 sheep av 115 at \$8, 22 do av 120 at \$8.75, 3 do av 140 at \$8.50, 10 do av 98 at \$7.25, 2 do av 135 at \$6, 4 yearlings av 90 at \$10.

Erwin, S. & J. sold Wilson & Co. 30 lambs av 85 at \$13; to Mich. B. Co. 14 sheep av 115 at \$9; to Nagle P. Co. 147 lambs av 80 at \$12.80; to Thompson 18 do av 70 at \$11.50; to Wilson & Co. 31 do av 90 at \$13, 8 do av 70 at \$12, 64 do av 80 at \$13, 6 do av 65 at \$12.

Hogs.

Receipts 8297. In the hog department the market was steady with Wednesday, pigs selling at \$8.75 and vorkers and heavy grades \$9.50@10.

Veterinary.

CONDUCTED BY W. C. FAIR, V. S.

Indigestion—Looseness of Bowels.—About a week before my cow calved she appeared to lose appetite for grain and our local Vet. treated her for indigestion. She had no trouble calving but picked up very slowly afterwards. She now eats some oats, a few nibbles of corn at a feed, but not much hay. Her bowels are too loose, but she is giving 10 quarts of milk daily. A. I. M., Pittsford, Mich.—She should be fed a good quality of food and whatever kind she craves. Give her two tablespoonfuls equal parts bicarbonate of soda, ginger and gentian in each feed or as a drench in a quart of tepid water. She should be kept in a warm, comfortable, well ventilated stable.

Warts.—Our eight-year-old horse has two warts or tumors on his lips, and they have been there since he was a colt. He also has a bunch on knee, caused by bruise. G. H. B., Merle Beach, Mich.—Apply a saturated solution of salicylic acid in alcohol to wart once a day, and paint bunch on knee with tincture iodine three times a week.

Indigestion.—I have a ram that shows symptoms of having bowel trouble and colic. His bowels are inclined to be constive and he also has some abdominal pain, but this has not occurred very often. E. W. V. F., Evert, Mich.—Feed him ground oats, wheat bran and clover. Give him two or three ounces of castor oil to open the bowels, if you believe it is necessary. Give 10 grs. of ground nux vomica, 30 grs. of ground gentian and 20 grs. of ground red cinchona at a dose, either in feed or as a drench three times a day.

Sprained Stifle Joint.—We have a four-year-old mare that has stifle ailment which makes leg stiff and swollen. This is not the first time she has had stifle trouble and I would like to cure her if I can. R. H., Gratiot Co., Mich.—Give her a teaspoonful of acetate of potash in soft feed or water once a day for 15 days. Mix together equal parts of turpentine, aqua ammonia and raw linseed oil and apply to stifle every two or three days, or clip off hair and apply one part powdered cantharides and five parts fresh lard every two weeks. This last mentioned ointment will blister.

Diseased Skin.—I have 22 pigs whose skin is covered with a dirty greasy scab of considerable thickness, and these pigs are not thriving. I feed them culled beans cooked with a little silage and beet pulp. This I mix with cookies, and crumbs, adding a little wheat middlings. F. G., Mt. Clemens, Mich.—You had better apply crude petroleum oil two or three times a week, and I believe it will have a good effect, or you may apply a two per cent solution of coal tar disinfectant dip two or three times a week.

Itchy Ears.—I have a dog two years old that is troubled with itchy ears. He must suffer more or less pain and he shows it most in damp weather. Z. H., Blanchard, Mich.—His ears should be cautiously swabbed out with tincture iodine or dust on some finely powdered boric acid once a day.

Lice on Cattle.—Buckwheat Straw Bedding.—Please give me a good remedy for killing lice on cattle, as I have a cow that is troubled with them. Is there any danger in using buckwheat straw for bedding? J. A. T., Wayland, Mich.—Apply any one of the commercial coal-tar disinfectant dips that are regularly advertised in this paper and follow directions, and this mixture will kill the lice on your cattle. Or you will find crude petroleum oil quite effective especially the Texas variety. It is well to keep in mind that killing the lice on your cattle does not protect them for any great length of time, unless you clean and renovate your stable. Kerosene is another very effective lice killer and you might use this as a spray, or fresh made lime wash to stable. Your grooming tools should be soaked in kerosene. Bedding live stock with buckwheat straw is not especially harmful, but not decidedly comfortable. It is rather harsh for tender skin animals, and sometimes irritates the skin.

Lice on Hogs.—Does lice on hogs affect their growth? What had I better apply to rid them of these pests? L. B. H., Hillsdale, Mich.—Apply one part coal tar disinfectant and 30 parts water as often as necessary to kill the lice. Lice are blood suckers, consequently they reduce the vitality of the pigs, besides creating nervousness and loss of rest which interferes more or less with the growth of young stock.

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Profits From Farm Flocks

HENS on a farm should prove more profitable than under any other conditions, for they have every advantage, if we leave out the personal factor. If farm poultry raisers would give the hens the practical common sense treatment they give to their other stock the hens would make the others rustle to show better returns. The fact is, the average farmer looks upon poultry as a side line, good for a supply of fries about harvest time, and eggs enough to furnish the table when eggs are plentiful. They sometimes dream of eggs in the winter, but don't really expect to get them. If they can haul a few surplus roosters or some old hens to town once in awhile and trade them for some groceries they consider that as pure gain. Many times it is all pure gain, for the hens get only what they can rustle in the feed line, that would otherwise be wasted. They act as sort of scavengers or by-way gleaners.

What Good Breeding Has Done.

When hens are treated in this manner they quickly revert back to the habits of the jungle fowl from which they originated. These would lay a few eggs in the spring, hatch a brood of chicks, then spend the remainder of the year hunting food for themselves and their little brood, taking all the time they wanted to in which to mature, the young pullets having no idea of laying until the next spring. Expert poultry breeders have changed all this until now the paying hen is one that matures quickly, getting ready to lay in the fall, and keeping it up at regular intervals throughout the year. She is not allowed to take up any of her valuable time rearing chicks, but lets the wooden hen attend to that, while she shells out the eggs to keep the wooden hen busy. Instead of producing six or seven dozen eggs when eggs are cheap, she is expected to produce twelve to fifteen dozen, and a good proportion of these at a time when eggs are high in price. If she brings in less than a dollar clear profit in a year she is a failure, comparatively, and many expect their hens to bring in treble that. As we stated at the first, farm hens have a better chance to do this than any others if they are given an equal amount of attention, simply because the farm has so much waste material that the hens will be glad to gather up and save, though they should not have to depend on it alone.

Have a Good Coop.

One of the most important things that the farmer neglects is the house. Hens must have dry quarters, and plenty of room for scratching in material that is kept dry and sheltered from cold winds. Unless they have this they will soon become sluggish from sitting cramped up in close quarters during a severe storm, and they will never live up again to any extent until the days begin to lengthen very noticeably. Plenty of exercise will keep them from becoming sluggish in the coldest weather, and they will not stop laying. It is not cold that hurts hens; it is drafts and dampness, or impure air from tight houses.

Balancing rations is very important where the farmer has a large flock, but it does not enter much into the case when but a few hens are kept, for a few hens can balance their own rations. A large flock will not find enough bugs on their range to supply all the protein they need in a quickly available shape. Milk will help them to balance up, or meat scraps can be fed to them in a mash or loose in a feeder. In winter milk or meat must be supplied if you are to expect eggs, for they will not be produced without it, at least not in paying numbers.

Important Points.

Early hatching for pullets, early maturity, early housing, dry quarters, large scratching space, and balanced rations are the most important points

to consider. Green pasture during winter, or roots and sprouted grains to supply green is important, but I have used alfalfa meal as a substitute very successfully, mixing it in the mash I kept before them. Alfalfa meal is rich in protein, also.

Inbreeding ruins many farm flocks. Nothing will run out a good line quicker. It impairs their vitality, causes them to decrease in size, makes the eggs less fertile, and the chicks weaker and more liable to disease. It makes the pullets slower to mature, and they will not lay so soon in consequence. I would advise against any inbreeding at all. Better get entirely new blood nearly every season to head your flock. If you have a large flock to supply with cockerels better have a breeding pen of a few hens and a choice cockerel to supply them each season, buying eggs from a good breeder to keep up this pen, or buying a good pen of fowls if you prefer. Good stock means much more than the average farmer will concede, and it is a mighty poor cockerel that will not improve the egg-laying record of a common farm flock enough to pay for himself. This is not saying that all farm flocks are poor, for many farms have fine stock, but it is referring to those that have not taken the proper interest in this matter.

Kansas.

L. H. COBB.

TREATING ROUP.

I have never seen my method of treating roup fowls described, so will tell you about it.

The first thing when roup is noticed in a flock is to get a good roup remedy and give according to directions, also disinfect and gather up all fowls with swollen heads and place them in an open-front enclosure.

Any hen with both eyes closed had better be killed, unless you have ample time to fuss with her, but those with swelling only on one side of head may easily be cured. In order to handle the sick fowl without getting infection on the clothing, take several pages of the ever present "daily" and wrap biddy in it so that just her head is visible, then take some more pages on your lap and you are ready to operate. Take a sharp knife and cut across the swelling below the eye and toward the bill and be sure that you get through to the cheesy matter underneath. Take a piece of alum and push into the cut. Now put the hen back in the hospital for three or four days. By this time the cut place may be opened up without any bleeding and all the cheesy matter removed with a hairpin, being sure to reach all the little pocket-like formations, as the face will not heal until the place is well cleaned out. Sometimes this operation has to be repeated but not often if well done the first time. After the cavity is well cleaned out, clean out again with alum and peroxide injected with an eye dropper. By this method the hen does not get all run down and poor as she would if left for nature to correct the ailment, but will be well in a week or two, and even though you may not want to put her back with your flock she will still be a good market fowl. It is not uncommon to remove a thimbleful of dried matter from the face of a young pullet or hen, and have her recover rapidly. Burn the papers used when through with them and wash the hands in water to which has been added a little permanganate of potash.

Barry Co.

KATE TERPENNING.

Colds, catarrh and roup are the most serious fall and winter diseases. Permanganate of potash in the drinking water is a good preventive of, and remedy for, these diseases. For swelled heads and eyes in advanced cases of roup, an application of equal parts of iodine and glycerine will reduce the swelling.

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Barred Rocks Parks 200 egg strain. Cockerels for sale. Circular Free. **Fred Astling, Constantine, Mich.**

Barred Rock Cockerels, Cocks and Hens. Four pullets laid 950 eggs in one year. **W. C. Coffman, R. 3, Benton Harbor, Michigan.**

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Best winter layers. 5000 pullets, hens and breeding males at low prices. Trapped to lay 200 eggs or more. Shipped C. O. D. and on approval. Chicks and Eggs. Catalog explains all. Send postal. **Geo. B. Ferris, 934 Union, Grand Rapids, Mich.**

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12 head of choice young bulls old enough for service. All sons of Black Monarch 3rd. Grand Champion Bull Michigan State Fair 1914, 1915 and 1916. Black Monarch 3rd has been sold to W. E. Scripps, Wildwood Farms. For the record price of the breed in Michigan, \$1200. **U. L. Clark, Hunters Creek, Mich. Sidney Smith, Mgr.**

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Bulls by BLACK QUALITY ITO, sire. First prize, Breeders and Calf Herds Mich. State Fair 1916. We also won first on Exhibitors Herd, Jr. Champion Bull, Jr. Champion Female and Grand Champion Cow. Also breeders of Percheron, Hackney and Saddle Horses. **WOODCOTE STOCK FARM, IONIA, MICH.**

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Eight bulls from eight to ten months old. One show bull, eight yearling heifers bred. Our motto: size with quality, best of breeding. Prices reasonable. Inquire of **F. J. WILBUR, CLIO, MICHIGAN.**

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Average yearly production 422.3 lbs. of fat, three fourths of them making their records as two year olds. By the use of a pure bred sire, a big improvement can soon be attained if the right selection is made. The breeding of the Beach Farm Herd is as good as can be found, and we guarantee them to be free from contagious diseases and to be satisfactory in every way or money refunded. Write and let us tell you about them.

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For Sale: At farmers prices, registered Guernsey bulls old enough for service, from advanced registered cows. **L. J. Byers, Coldwater, Mich.**

Reg. Guernsey Bulls two gr. sons of May Rose (the \$4000 bull) one 12 mo. old dam May Rose breeding one 6 mo. old, others of serviceable age. Satisfaction guaranteed. **Alfred Anderson, Holton, Michigan.**

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100—Registered Holsteins—100

Bulls for sale, of ages from a few weeks to 14 months, from 30-lb. sires and choice A. R. O. dams. Have some special bargains for quick sale. Come and see them or write for pedigrees and prices.

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Ready For Service.

From a grand daughter of The King of the Pontiacs. Sired by a bull that is more than a half brother to the Champion Holstein Cow of the World, and whose dam is a 30 lb. 6 3/4 fat daughter of Pontiac Aggie Korndyke who has more 30 lb. daughters than any other living bull. If you do write for pedigree.

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By careful retention, for many years, of largest producing females, and use of superior sires, a breeding herd of wonderful quality has been established. We are selling young bulls of this "TOP NOTCH" quality of serviceable age, at moderate prices. Information, pedigrees, etc., on application. **McPHERSON FARMS CO., Howell, Michigan.**

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From A. R. O. Dams that average four per cent fat, Sired by "Maplecrest Korndyke Hengerveld," whose Sire and Dam's Sire, are the two

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Having more high testing yearly record Daughters than any three other Bulls, and his Dam's Sire has more thirty pound Daughters than any other Bull. We also have a few Calves Sired by G & B Segis Uirica Pledge 108790 a promising young Sire, backed by a strong combination of blood lines, and also a Calf Sired by a Son of

The Fifty Thousand Dollar Bull

and from one of our best Cows, write us for particulars in regard to these Calves, and our

BERKSHIRES

that won more premiums at the Fairs this season than any other herd in the State. Our prices are right, so the stock, which will be sold to good responsible parties on six months credit.

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30 lb. bull for sale, 2 years old, by a son of King of the Fords, Dam sold for \$1000 in Detroit sale. Ford, J. Lange, Sebawaing, Mich.

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Herd No. 1, Five cows, one two year old bull. Herd No. 2, Five yearling heifers, one yearling bull. Herd No. 3, Five Heifer calves and one bull. Bulls ready for service and 6 to eight months old bulls. Prices will please you. If interested, write as soon as you read this. L. E. CONNELL, Fayette, Ohio.

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A. R. O. herd tuberculin tested, headed by grandson of King Segis Pontiac. PEACELAND STOCK FARM, Three Rivers, Mich. Chas. Peters, Herdsman, C. L. Brody, Owner, Port Huron

Holstein Calves, 10 heifers, and 2 bulls 15-16ths pure, 8 weeks old, beautifully marked, \$20.00 each, crated for shipment anywhere. Edgewood Farm, Whitewater, Wis

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1 to 9 months old. Dam's A. R. O. Our herd sire is Johanna McKinley Segis 3d. 7 nearnest Dams average 27.35. BLISSVOLDT FARMS, Jenison, Mich.

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Herd Sire Ypsilanti Sir Pletierje De Kol

I have several young bulls for sale, good individuals and the kind that is a credit to head any herd at farmers' prices. E. H. Gearhart & Son, Marcellus, Mich., R. No. 4.

Registered Holsteins. Young bull ready for service. 30 lb. breeding. Satisfaction guaranteed. W. B. Jones and J. F. Lutz, Cohasset, Mich.

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Jersey Cattle, Majesty Blood. We have Bulls for sale from Register of Merit cows of good type. Write your wants. Alvin Balden, Capac, Michigan.

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FOR SALE REGISTERED JERSEY BULLS

Ready for service. Write your wants. SMITH & PARKER, R. D. No. 4, Howell, Michigan

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DAIRY BRED Shorthorns of best Bates strains, young bull 8 months old for sale, price \$150. J. B. HUMMELL, Mason, Michigan.

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Special Offering of High Class Fall Boar Pigs. Breeding and individuality good enough for breeders who appreciate the best.

Also some good farmer's boars. This is the best lot of fall pigs we have ever had to offer. A cordial invitation is extended to visit the farm and inspect the stock. If you wish one of the best young Jersey bulls in Michigan we have him for sale. For further particulars, address,

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We Have a Few Choice Bull Calves

Sired by Long Beach DeKol Korndyke. His sire Friend Hengerveld DeKol Butter Boy. Dam a daughter of Pontiac Aaggle Korndyke. She has a 1200 lb. record, 11-30 lb. sisters, 8-1200 lb. sisters. Her dam, a daughter of Friend Hengerveld DeKol Butter Boy has 1000 lb. year record. Has 4-30 lb. sisters, 3 sisters above 1200 in year. LONG BEACH FARM, AUGUSTA, (Kalamazoo, Co.) MICH.



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"For Beef and Milk"

This heifer at 6 months has bone, size and quality—our own breeding. The blood of Scotch bulls, imp. Shenstone Albino and imp. Villager Registered stock always for sale.

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Shorthorn AND POLLED DURHAMS FOR SALE. Have red roan and white. Have over 100 head in herd. C. Carlson, Leroy, Mich.

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Milking Shorthorns, roan 3 year old, Bates bred herd bull \$250. Young bulls and heifers. DAVIDSON & HALL, TECUMSEH, MICHIGAN.

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8 Bulls, also females. W. B. McQuillan, Howell, Mich

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6 Shorthorns for sale. Four 3 year olds rebred, 2 June calves. Three registered and 3 pure bred, but not registered. Dr. R. G. Gordanier, Grand Ledge, Mich.

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Both sexes and all ages for sale, our herd comprises about 100 head representing the blood of such sires as Prime Lad 9th, Perfection Fairfax, Bonnie Brae 3d and Dale. Write us your wants.

ALLEN BROS., PAW PAW, MICH.

50 Herefords BOTH SEXES ALL AGES EARL C. McCARTY, Bad Axe, Michigan

\$250 buys 2 heifers 11 months old, sire King Hengerveld Palmira Fane, dams good milkers, and 1 bull not akin 7 months old, dam good milk 4.8% fat. Color of calves about half and half and all papers. Best of breeding. Lewis J. Benjamin & Son, Clio, Mich.

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2 Loads feeders and two loads yearling steers. Also can show you any number 1, 2 and 3 years old from 600 to 1200 lbs. Isaac Shanstun, Fairfield, Iowa. R-3.

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Heavy bone, lengthy Spring Boars and Gilts from prize winners sired by one of the best Great Dan fender & other noted strains. M. T. STORY, Lowell, Mich.

FOR SALE

Young Berkshire boars: registered, ready for service; Dam is a great granddaughter of the World's Champion Premier Longfellow 95800. J. T. Grimason, R. 3, Clare, Mich.

The Very Finest Berkshire Pigs Cheap C. S. BARTLETT Propr. Pontiac, Michigan

Berkshire Boars and gilts. May farrowed, large growthy fellows. Also a litter just ready to wean. A. A. PATTULLO, R. 4, Deckerville, Mich.

Berkshires, Boars, serviceable age, best blood lines. Registered. ELMHURST STOCK FARM, Almont, Mich.

Berkshires: Mature sows, yearling and spring gilts bred for spring farrowing at 12c per pound. Shipped on approval. B. B. Reavey, Akron, Mich.

DUROC JERSEYS

A choice lot of spring pigs, both sex, pairs and trios, not akin. Prices reasonable. Send for pedigrees. THE JENNINO'S FARMS, R. F. D. 1, Bailey, Mich.

Heavy Boned Duroc Jersey Boars

March and Apr. farrow, weighing 200 to 250 pounds will be sold as cheap as any man can sell first class stock. M. A. BRAX, Okemos, (Ingham Co.) Mich.

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Duroc Jersey Boars Two June 1915; 12 April 1916 Write for description. I guarantee satisfaction. J. H. Banghart, East Lansing, Mich.

For Sale, Duroc Jerseys, choice breeding spring pigs either sex. Prices right. John McNicoll, Station A. R. 4, Bay City, Mich

Duroc Jerseys Big Type Boars with breeding and individuality that is hard to beat, bred from prize winning stock, prices reasonable, satisfaction guaranteed. F. J. DRODT, R. 1, Monroe, Michigan

DUROC Jerseys. Spring boars from the most noted sires of the breed. Jo. Orin H. Perfect Top Col. Oakland Ohio Chief, Principle IV & Model Pal. Newton Barnhart, St. Johns, Mich.

BOARS are all sold. Durocs, a few April gilts, will be bred for Apr. farrow, weight about 175. Price \$25 while they last. H. G. Keesler, Cassopolis, Michigan.

Duroc Boars and Delaine Rams of choice breeding and Delaine Rams of choice breeding. Carey U. Edmonds, Hastings, Mich.

Duroc Boars, A fine lot of spring boars bred right and priced right. W. O. TAYLOR, Milan, Michigan.

Duroc Jersey Spring boars with the best of breeding and individuality; also a few choice spring gilts. E. D. Heydenberk, Wayland, Mich.

Duroc Jerseys A nice bunch of gilts, bred or open, some good serviceable boars. Also fall pigs. Wm. W. Kennedy, Grass Lake, Michigan.

DUROC Jerseys, fall pigs, either sex sired by Brookwater Cherry King No. 47585, \$20 each Reg. & Del. anywhere in State. Choice stock. J. Robert Hicks, St. Johns, Mich.

DUROC Sows, Spring gilts, Aug. Boar Pigs. Sept. Pigs either sex. Percheron Stud Colt six months old. E. J. Aldrich, Tekonsha, Mich.

Duroc Sows 25 beauties bred to grand big boars at Auction Feb. 12th. Some splendid fall boars. Orlo L. Dobson, Quincy, Michigan.

Big Type Boars: ready for service Bred Gilts—Fall Pigs. Registered in buyers name, shipped O. O. D. Prices very reasonable. J. Carl Jewett, Mason, Mich.

O. I. C. SWINE: 20 gilts due to farrow for part of April. Will be sold at knock-down price. Have also fall pigs. Write me your wants. Satisfaction guaranteed. A. J. GORDEN, R. No. 3, Dorrr, 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. S. S. BENJAMIN, R. F. D. 10, Portland, Michigan

CHESTER WHITES Some splendid March boars for sale, also fall pigs. F. W. ALEXANDER, Vassar, Mich.

O. I. C. and Chester White Swine, all ages. A few either sex, sired by Crandells Wonder, Grand Champion at Ohio State Fair, Schoolmaster the champion of champions and highest price boar of the breed and others. Get a sow bred to Gallaway Edd Grand Champion Mo. State fair, we are booking orders. We had the undefeated breeders age herd at six state fairs. Get our catalogue, buy the best it pays, we have them. We ship on approval. Rolling View Stock Farm, Cass City, Mich. R. 2

O. I. C. Stock all Sold JULIAN P. CLAXTON, Swartz Creek, Mich.

O. I. C's. 4 last fall boars big growthy either sex, not akin. One 3/4 mile West of depot. Otto B. Schulze, Nashville, Michigan

O. I. C. Serviceable Boars, Gilts bred for March and April farrow. Prices reasonable. H. W. MANN, Dansville, Mich.

O. I. C. & CHESTER WHITE SWINE Strictly big type, 25 gilts, bred for Mar. and Apr. farrow, bred by Big Wonder 4th. and Prince Jumbo. Both boars are sired by Champion's. These gilts will be sold at Farmer's prices. Three boars ready for service, also fall pigs that will be sold cheap. Can furnish in pairs not akin. Will ship C. O. D. Newman's Stock Farm, Marlette, Mich. R. 1.

O. I. C. Choice Spring gilts not bred and spring boars. Out of Prize winning stock. Write for low prices. A. V. HATT, Grass Lake, Mich.

O. I. C. Serviceable boars. Yearling sows and fall pigs. G. P. Andrews, Dansville, Michigan.

O. I. C. Year old boar 2nd prize winner at Grand Rapids fair also spring gilts and boars ready for service. A. J. Barker, Belmont, Mich. R. R. 1.

FOR SALE Thoroughbred O. I. C. Swine, sows bred, gilts and boars. O. D. Somerville, Grass Lake, Mich. R. 2.

O. I. C. or Chester White Swine, both sex, not of kin. Write for catalog and prices. E. B. MILETT, Fowlerville, Michigan.

O. I. C's. Have only a few boars of May, June and Sep. farrow. ROCKFORD, MICH.

O. I. C's. 25 choice Gilts bred to Son of Schoolmaster to farrow in Mar., also fall pigs. Clover Leaf Stock Farm, Monroe, Mich., R. 1.

Big Type Poland Chinas Spring boars, at reasonable express. A. A. WOOD & SON, Saline, Michigan.

LARGE Type P. C. largest in Mich. Boars all sold. Have 90 of the best big stretchy bred gilts I ever raised. Sired by & bred to the largest boars of the breed, from massive dams & large litters. Come & see & be convinced. Expenses paid if not as represented. Free livery to visitors. W. E. Livingston, Parma, Mich.

Big Type Poland China bred for March and April farrow. July boars. Satisfaction guaranteed. G. W. Holton, Kalamazoo, Mich. R. 11.

Francisco Farm Poland Chinas Big Types With Quality Ten 200 lb. Spring Boars from prize winning stock. They're long, strong, big-boned, rugged fellows. Pictures, circular and price list on request. P. P. POPE, MOUNT PLEASANT, MICH.

NOW IS THE TIME TO BUY Twenty-five tried Big-Type Poland-China brood sows to be bred for March and April farrow. Ten splendid Spring boars at \$25.00 each for quick sale. Worth \$50.00.

Hillcrest Farm, Kalamazoo, Mich.

AT HALF PRICE Genuine big type Poland China Hogs. Bred Sows, Spring Pigs, Boars ready for Service. Special, the best big type fall yearling boar in Michigan. Also registered Percheron Stallions and Mares. J. C. BUTLER, Portland, Mich., Sell Phone.

Large Strain P. C. One extra good cracker jacks by Oakland Equal Jr. and a fine bunch sired by Big Defender the hog that everybody goes wild over, sold at farmers prices. H. O. Swartz, Schoolcraft, Mich.

BIG TYPE Poland Chinas. Boars all sold except 4 extra good B. boars of May farrow Sired by Big Type King 91609 & Tessemeyer & Wonder Jr. 95339. To close them out in the next 10 days we offer them at half price. W. Bro. Wabaker & Sons, Elsie, Mich.

WALNUT Alley Herd. Big type Poland Chinas headed by Hadley Desmains No. 21092 and Smothe Jumbo Jr. No. 24383. Sows represent blood of two A wonders. Pigs of either sex ready. A. D. Gregory, Ionia, Mich.

Big Boned Poland China boars shipped C. O. D. call or write for photo, weights, pedigree and price. E. H. Leonard, St. Louis, Michigan.

Large Stiled Poland China spring and fall pigs; also B. P. Rock cookers at special low prices to quick buyers. Robert Neve, Pierson, Mich.

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BIG Type Poland Chinas. The smooth, easy feeding B-kind that will grow big and get fat. Apr. pigs weighing up to 25 lbs. E. R. Moore, Ransom, Michigan.

Large type P. C. Sows and gilts all retained for my Feb. Sale. A few choice Spring boars ready to ship. W. J. HAGELSHAW, Augusta, Michigan.

BIG Type Poland Chinas. Choice April boars, fall pigs in pairs. Chances to get started for a little money. Big Minerva Cockerels. Satisfaction guaranteed. R. W. Mills, Saline, Mich.

POLAND Chinas. special, 8 big smooth blocky boars priced to move at once, also two Aug. boars from a \$108 sow. Robert Martin, R. 7, Hastings, Mich.

Big Type. P. C. Boars. Big boned husky fellows. Bred Sows and gilts for August and September farrow 8. Spring pigs, sex both. FLOYD MYERS, R. No. 9, Decatur, Ind.

For Sale Poland Chinas either sex, all ages. Something good at a low price. F. D. Long, R. P. D. No. 6, Grand Rapids, Mich.

For Big Type Poland China Gilts bred for April farrow. Write or call on Armstrong Bros., R. 3, Fowlerville, Mich.

10 Yorkshire Gilts, 2 Boars one mature; Red Polled cattle. E. S. CARR, Homer, Michigan.

Hampshire Swine. Bred Sows and gilts for August and September farrow 8. Spring pigs, sex both. FLOYD MYERS, R. No. 9, Decatur, Ind.

HAMPSHIRE Boars, sows, gilts and pigs. Choice stock A. E. BACON & SON, Sheridan, Michigan.

GROWTHY THE DISEASE PROLIFIC "MULEFOOT" RESIST- PROFITABLE HOG ING FOUNDATION STOCK FROM BEST BLOOD OF BREED THE CAHILL FARMS KALAMAZOO - - - MICHIGAN

HAMPSHIRE HOGS Only a few spring boars left. Taking orders for bred gilts. John W. Snyder, R. 4, St. Johns, Mich.

Halladays' Hampshire Swine Both sexes, all ages. Prices reasonable. O. H. Halladay & Son, Clinton, Mich.

SHEEP

Kope Kon Farms

Offers. One yearling Hampshire ram at \$50.00. One yearling Southdown ram at \$25.00. A few growthy well bred Oxford and Shropshire ram lambs at \$25.00. Kinderhook, Michigan.

Oxford Down Sheep No more for sale. M. F. GANSSLEY, Lennon, Michigan.

Registered Oxford Down Rams For Sale. Direct all mail to Olmsted and J. Spaans, Muir, Michigan.

TWO Oxford Ram Lambs not registered at \$11 each if taken right away. A few S. C. W. Leghorn Cockerels. Chase Stock Farm, R. 1, Marlette, Mich

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Grange.

Our Motto:—"The farmer is of more consequence than the farm, and should be first improved."

ANNUAL MEETING OF STATE GRANGE.

(Continued from last week).

The lecturer's program was continued Wednesday evening, at which time a play by Mrs. Stockman entitled "The Coming of Happy Valley Grange to Hardscrabble Hollow," was given in a very creditable manner by the Charlotte Grange. Third degree drill work and tableaux was given by the Capitol Grange degree team under the direction of E. J. Creyts. The Clinton County Chorus and Orchestra, and Hon. Ernest Pray, of Dimondale, furnished the music.

A very valuable report was given by the sub-committee on taxation of the executive committee. This report was the result of very earnest study of the budget system and the Wisconsin income tax by W. F. Taylor. The report states that the budget system has been tried in ten states, but no two states have applied it in the same manner which, is an indication of the fact that the system has not yet been perfected. The great increase in taxation in this state shows that some more efficient method of appropriating money for state institutions is necessary. The budget system will accomplish this if properly applied. In order to do it to the best advantage a budget commission should be constituted to study the needs of the public institutions and to see that the expenditures are efficiently made. Information received by this commission, and recommendations it makes, should be published so that everyone interested, including legislators, can obtain this knowledge. The commission's report should also contain a complete budget as a guide for making new appropriations.

There are radical changes necessary in the system of taxation in this state. Michigan is no longer a rural state, and the old system is no longer equitable. The Wisconsin income tax has proven successful in that state and therefore was given serious study by

the taxation committee. It is briefly a change from the method of uniform taxation of property to the taxation of people progressively, according to ability to pay, and the taxation of real property, according to value. Wisconsin has proven that the collection of the income tax was not expensive and was quite staple as a producer of revenue, for although individual incomes varied from year to year, the aggregate increased gradually. This tax has also thrown some light on the incomes from various occupations. Of the 60,860 in Wisconsin who paid the tax, only 7,225 were farmers. It is graded into eight classes, the first paying an average of \$3.74 while the last paid \$1,794. Many professional men who were not taxed before were placed on the income tax roll. In closing Mr. Taylor said that the budget system was closely associated with taxation, as both worked for greater service in governmental work. Everything has heard the cry of efficiency, so in the work of the government it must replace graft, political intrigue and the spoils system by applying civil service wherever possible.

In his report of the sub-committee on co-operation, Mr. Horton said that co-operation has taken hold of the people, and the Grange must get in line or suffer. In order that the Grange contract system be made a success, a large volume of business with cash firms is necessary. In asking for bids, the Grange must be able to approach manufacturers with some definite proposition as to the amounts to be contracted for. During the past year the State Grange received \$8,016 for its percentage on Grange contracts. This means that a business of over \$400,000 was done. If systematic and certain business was established in this regard, the amount of business would be greatly increased, and the Grange would become a great factor in co-operative effort.

Friday morning the reports of various committees were read and voted upon. The first committee to present its report was that on the Agricultural College, which recommended that the Grange use its influence to have elected on the State Board of Agriculture a majority of bona fide farmers, which was adopted.

(To be continued).

Farmers' Clubs

CLUB METHODS.

(Paper read by Mrs. I. R. Johnson, of the Salem Farmers Club, at the recent meeting of the State Association of Farmers' Clubs).

We are living in an age of progression, everything is moving at a rapid pace, and we as Farmers' Clubs of the state of Michigan, must progress or we will not be able to take our proper place and keep it.

It certainly means most earnest and thoughtful consideration on the part of each Club and each individual.

The Clubs must, from the very start be made of value to the communities in which they are located, educationally, socially and financially. We must make them of such importance that every farmer will see his need of belonging and also the advantages he may avail himself of by joining such an organization.

What we as farmers, need is organization and co-operation.

No one need have any fear of joining a Farmers' Club, because there is no stock sold and no possibility of loss. It is simply an organization with a mutual understanding that the people of the community will take up collectively, questions of interest and profit and discuss them freely.

There are at least two advantages in holding the meetings at the homes of the members.

First, knowing that the Club will meet at one's home is a stimulus to picking up and putting in shape stock, fields and buildings.

Second, members feel some obligation to the host and hostess to attend.

However, if you cannot hold your meetings at the homes, hold them at some convenient place, do not do without them.

The majority of Clubs find it easier to carry on a movement of this kind by serving dinner, as eating together does more than any one thing to break down reserve, formality and distrust.

Some Clubs are able to be carried on successfully without this, which is, of course, much less work to hostess and members.

One of the most important features of the Club is the program. If this is not instructive and helpful then certainly the Club will be a failure. It must always be lively. We need short pointed talks, followed by discussions, with music, humorous recitations, the

question box, for sale and wanted box, all having a place. No program is complete without a paper or talks by some one of the Club, a state speaker or some other person of authority on some important question of the day, or something that might be of help to the Club.

The yearly program is one of the best ways to do work in a systematic way, as the work is planned a year ahead and can easily be worked out.

Debates may be taken up occasionally. These are a great help to interest the younger ones, and it is the younger people of today, who we are educating, that we are expecting to make our Farmers' Clubs and take care of the farms we are now keeping so well. If they do not, someone else will reap the profits of our years of labor.

A great deal has been said on the subject of "Keeping the Boy on the Farm." We need the boys on the farm it is very true, and it is by the Farmers' Clubs we can help to keep them, but could we afford to waste a good mechanic, chemist, doctor, electrician or teacher to make a poor farmer?

We must have machinery, we need chemists, doctors, electricians and teachers, and it is from the farm many of the best of these come and we, the farmers, must furnish our share, but let us teach them that the farmer is at the head of all and it is on him all others are dependent.

* * *

The children must be thought of and interested. This can be done by having corn, potato and canning contests. Try some of these with a fair in the fall, giving premiums for the best corn, potatoes, poultry, canned fruits or vegetables, or anything else the children have raised during the summer.

Of course, you will need money to carry on an enterprise of this kind and you will have to secure this first and by the easiest way you can in the community where you live. You possibly could have a social, and chicken-pie dinners rarely fail to bring crowds.

Our Club had never been a success financially until about a year ago some of our members decided to give a play. They chose one that could be given with little expense and also one that suggested that the Farmers' Club was at its head. It was "The Old Dairy Homestead."

They gave it in our own town first, and with such credit to themselves that a neighboring town invited them to give it there, and as a result over \$70 was realized.

It meant work, hard work and plenty of discouragements, but do we find anything without these?

Each Farmers' Club needs to keep in touch with this, the State Association of Farmers' Clubs, as this is the head of all Clubs, and it is through this association much help may be derived and much good done.

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