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Encouraging the "Son to Shine"

The Spirit of Play Wisely Directed Produces Astonishing Results.

NOT many years ago the thought prevailed that the wisdom of the ages could be obtained only from venerable sages. In other words, the individual would have to go through a process of ripening by age before he was considered a valuable asset to the community. But now, it seems that the tendency is toward the fulfillment of the prediction that "the child shall lead them."

Young men and young women now occupy positions of trust and responsibility. This makes it seem that the young of today have skipped years of experience which were deemed essential for developing good judgment in the world's activities. Young doctors, lawyers and other professional men no longer think it necessary to grow a mustache and beard to give them the appearance of age and ripened experience. In fact, the time of safety razors and barber shops is here, not only because of greater sanitation in the smooth shaven face, but also because today the endeavor is to keep young instead of trying to appear mature and sedate as quickly as possible.

That this is truly an age of youth is shown by the success of boys' and girls' work in rural communities. This work has changed many a young life from one of country drudgery to a life full of keen and happy interest in rural affairs. The will to do has come with a knowledge of the opportunity in rural communities for accomplishing things worth while. The young folks are rapidly learning that rewards of happiness as well as of material things coming to those living in rural communities give greater satisfaction than do the rewards of city life.

Primarily the parents are supposed to be the educators of, and guides to their children, but with the development of civilization more and more of the child's education and preparation come from outside the family. At least, in the recent development of

boys' and girls' club work parents have not been counselors of their children. In fact, it seems that now the child quite often leads the parent to better things. He may have shown through his work, ways to a better and a more profitable farming and to happier and more convenient homes.

Nor should the older folks feel discouraged at this condition of affairs. They should rather feel happy that the children have learned through education much that the parents gained through years of experience. They should feel pleased that, because of this the advancement of civilization is likely to progress faster than it has. It should make men optimists, for one cannot view these things without feeling assured that the world is growing better every day.

As a duty to the children, the world, and to themselves, parents should encourage their children to undertake some kind of good work. They should stand behind the boy and girl and encourage them to greater efforts, for encouragement is the most potent stimulant to accomplishment. Many have become famous because they had someone to advise and encourage them. Others who were naturally capable have remained mediocre because they have had no words of approval from those in whom they had confidence. Emerson says, "The chief want in life is somebody who shall make us do the best we can." It therefore seems that one can do no greater thing for the future generation than to give cooperation and encouragement to the laudable ambitions of the young.

These boys and girls can be encouraged in their work by showing the results of their efforts to the public. The fairs and local shows furnish ideal places for making such exhibitions, since in these places the spirit of contest, one of the most compelling instincts of youth, prevails. The winning of an award brings honor to the boy or girl who makes the entry, and to be defeated will often stimulate greater determination for the next contest. The spirit of rivalry is always a great incentive to more earnest endeavor, especially among the younger people.

No limit should be set on the ambitions of youth. Where they have entered and won in the local and state contests they should be encouraged to compete at the national shows. There will be ample opportunity for this during the present year. The International Live Stock Exhibition, The International Grain and Hay Show, and the club judging contest to be held at Atlanta, Georgia, will all furnish the finest opportunities for these lads and lassies to do their very best. Among the various awards offered in the lists of prizes

(Continued on page 773).





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DETROIT, JUNE 25, 1921

CURRENT COMMENT

A Forward Step in Marketing

THE promotion work done by the Michigan Milk Producers' Association which has resulted in the organization of the Michigan Dairy Company, as reported in another column, is an important forward marketing step on which the dairymen of the Detroit market milk area are to be congratulated. The results secured at the Grove City plant, after which the first plant of the kind to be erected in the Detroit area will be modeled, indicate that the manufacturing of high-grade dairy products, such as Swiss cheese, which will equal the imported article, will return to the patrons a price for their product which will closely approximate the price for market milk. And when a chain of these factories has been completed, all of which are controlled by members of the Milk Producers' Association, who alone are eligible as stockholders, the facilities will be at hand for the development of an adequate plan for the disposal of the surplus milk in the Detroit area, thus removing a difficult sales handicap and the source of much dissatisfaction in the selling of the city milk supply.

Of course, this benefit will not be realized with the establishment of one factory, but this will be an important forward step toward the desired end, as it will enable the establishment of a market for the product and will be a needed experiment plant for the development of a chain of similar plants which will be a most valuable aid in the solution of the marketing problem in the area.

Maintaining the Farm Plant

IN riding through the country, the observant traveller sees much evidence of the faith of the average farmer in the future success of his business in the occasional new buildings which are being erected and in the frequent cases in which more or less extensive alterations and repairs are in evidence. More farm buildings are being repainted this year than for several years past, and on every hand there is abundant evidence of the thought which the average farmer is giving to the maintenance of the farm plant.

The preservation of the capital investment is one of the first laws of good business, and in this regard we believe Michigan farmers are ahead of

the farmers of most other states. A close second in business principles is the improvement of the plant and its equipment to the point of greatest economic efficiency. And in this regard Michigan farmers are also well in the vanguard, as both observation and available statistics will show. The extension of tile drainage in many sections, the more general and liberal liming of soils in other communities where this treatment is needed, the installation of better equipment and the adoption of labor-saving methods everywhere point to more economic production which will go far toward overcoming the deflation handicap with which the farmers of the country have been confronted.

The consideration of these factors, together with lowered labor and other production costs, has resulted in a consensus of opinion that this season's farm production costs will range from twenty to thirty per cent below those of last year. This fact, together with the prevailing tendency toward stabilization of values of farm products, should inspire optimism in business circles as well as among farmers. As a class, farmers have complained less loudly regarding prevailing business conditions than have most classes of business men and are laying their plans and going about their production tasks more confidently and cheerfully, which fact is not only to their credit, but is a matter for sincere congratulation to the country in the present emergency.

The Income Tax Amendment

THE Michigan Farmer owes an apology to the members of the state senate for the statements made in a recent issue to the effect that the submission of the proposed constitutional amendment permitting the passage of an income tax law was defeated in the senate. In this case we made the too common error of depending upon press reports indicating the trend of legislative proceedings without waiting for

the official report of those proceedings. This is always a mistake and one which we do not often make. The official record shows that House Joint Resolution No. 1, entitled "A joint resolution proposing an amendment to Section 3 of Article 10 of the Constitution, authorizing the enactment of an income tax law," was passed by the senate on June 8, without debate under the application of the previous question. The vote was Yeas—27; Nays—3.

In preliminary discussions of the proposition, as indicated in published reports, the arguments noted in our previous comment were advanced, presumably as a background for the expected defeat of the proposition, as was the case in the regular session. This is another illustration of the fact that legislators are very generally responsive to well defined public sentiment on any proposition which is before them for consideration, regardless of their personal views on same. We apologize to the members of the senate for our unintentionally misleading statements and commend them for their final action in submitting this proposition to a vote of the people for their adoption or rejection. We also commend the governor for his action in directing the attention of the legislature to the proposition in the special session and using his influence in securing its passage.

News of the Week

Wednesday, June 15.

SAMUEL GOMPERS, president of the American Federation of Labor, asks farmers to line up with laborers against capitalists.—General J. M. Gomez, former president of Cuba, dies in New York.—The house of representatives passes, by an overwhelming vote, the Porter resolution declaring war with Germany and Austria at an end.—Eastern bankers agree to furnish one-half of the fifty million dollar pool, formed for furnishing credit facilities to the live stock industry.—Senate refuses to accept Porter peace resolution passed by the house.—H. Griffin, a Hamtramck police officer, routs a gang of forty toughs and arrests ten single-handed.—Railroad offi-

Dairy Company Organized

AT a meeting held in Detroit last Saturday the Michigan Dairy Company was formally organized. This business organization is the result of the preliminary work done by the Michigan Milk Producers' Association on the plan to build and operate a number of modern dairy manufacturing plants in or around the Detroit market milk shed with the ultimate end in view of handling the surplus milk in the area during seasons of flush production in addition to their regular manufacturing business. The matter of the location of this first factory was left to the committee now making a survey of the territory, with power to act. The new company is being organized under the new Michigan corporation law, which permits a combination of the cooperative and stock company plans, which in the opinion of those who have made a thorough study of the proposition is best suited to an organization of this kind which is ultimately destined to serve a double purpose, viz., provide a permanent market for the milk of producers in the territory where it is located and a temporary market for milk from outside the territory when the plan is fully developed. The company will be capitalized at \$120,000, a portion of which stock will be subscribed by the Michigan Milk Producers' Association, and the balance or majority of the stock by producers who will benefit directly or indirectly by the operation of the plant. The plan of organization contemplates the sale of preferred as well as common stock, with provision for the redemp-

tion of the preferred stock at the rate of ten per cent per year after the third year and for its reissue and distribution to producer patrons on the basis of their patronage, while the dividends which may be paid on the common stock are limited to seven per cent per annum, this making the enterprise purely cooperative in effect.

It is proposed to erect a plant on the plan of the model plant at Grove City, Pennsylvania, which has been so successfully developed through the aid of the Dairy Division of the United States Department of Agriculture. The development work of the Michigan Dairy Company will be in charge of Helmer Rabild, formerly of Michigan, but for some years in charge of the field work of the Dairy Division, at Washington. Mr. Rabild needs no introduction to Michigan dairymen, and his direction of this enterprise will be generally looked upon as practical insurance of its success.

Something over ten per cent of the stock of this new corporation was subscribed before the formal organization was completed. At the initial meeting a board of seven directors were elected as follows: N. P. Hull, Lansing; R. C. Reed, Howell; L. W. Harwood, Adrian; Helmer Rabild, Adrian; M. L. Noon, Jackson; C. E. Gittins, Detroit; J. C. Near, Flat Rock; R. G. Potts, Washington; A. M. Eckles, Plymouth.

Officers were elected to serve for the first fiscal year or until December 31, 1921, as follows: President, L. W. Harwood; vice-president, John C. Near; secretary-treasurer, Helmer Rabild.

cialists testify before the public utilities commission that auto and auto trucks have seriously hurt short distance passenger and freight business.

Thursday, June 16.

GOVERNOR GROESBECK speeds up work on soldier bonus so that the war veterans can get their money by July 1.—Congress serves notice on the new shipping board that it must end extravagance and waste before it gets more money to build ships.—The building strike in Cleveland which affected twenty-five thousand men and forty million dollars worth of building since May 1 was ended by an agreement to put in effect a seventeen per cent wage reduction.—A Canadian Railway Commission orders a ten per cent reduction in railroad fares in eastern Canada.—Owners of New York National and American League ball teams cooperating with police to stop gambling at ball games.—The Standard Oil Company of New York announces a cent and a half reduction in the wholesale price of gasoline.

Friday, June 17.

THE new prohibition commissioner, Roy Haynes, promises a strict dry law enforcement, and asks public cooperation to accomplish it.—The proprietor of one of the largest dance halls in the country tells a convention of Episcopal clergymen that jazz music has the same effect on dancers as five big drinks of whiskey.—Mexico will resume payment of foreign debts on July 1, the national budget being increased for that purpose.—Representatives of the leading Trans-Atlantic lines confer with Washington officials on immigration law. They claim it is ruinous to remain in the passenger business with this law in effect.—Italy approves the British plan to give the allied commission control over disturbed area of Silesia.

Saturday, June 18.

ONE gramme of radium was purchased by Belgium Red Cross in Colorado for one million francs.—Customs officials at Hoboken seize a quantity of machine guns and ammunition, believed to be destined for shipment to Ireland.—President Harding, on recommendation of Attorney-General Daugherty, declares contracts entered into for war department by former Secretary of War Baker to be null and void.—Women suffrage advocates in France call on Premier Briand asking his support of the suffrage movement.—The Scott bill lengthening the season of navigation on the great lakes, and permitting use of fewer men on vessel crews making short trips, was passed by the house.—United States and Japan begin direct negotiations for the settlement of Yap, immigration and alien land questions.—The farmers' National Council favor closer cooperation with the labor forces, as suggested by labor President Gompers.—Bill is introduced in the house of representatives making the kidnapping of children a federal offence, punishable by death.

Sunday, June 19.

GERMAN crop production is less than seventy per cent of pre-war average, according to the Prussian minister of agriculture.—The United States Shipping Board gets agreement between the factions in the marine workers' strike which calls for a fifteen per cent wage cut.—A proprietor of a New York hotel was arrested and fined \$400 for selling one glass of hard cider.—Otto H. Kahn, American banker, was decorated by French Premier Briand for his services to France during the war.—Reduction of fares from six to five cents is made by Detroit United Railway.—British coal miners vote to continue their strike.—Mary Lowe, a hundred and ten-year-old squaw, in Sioux City, Iowa, was arraigned in the Sioux City, Iowa, police court on the charge of drunkenness.

Monday, June 20.

GENERAL PERSHING, in a talk before national guardsmen, says the illiteracy of the young men of this country is a disgrace.—President Harding denies government employees Saturday half-holidays throughout the year.—Four were killed and twenty-one hurt in interurban crash near Chelsea, Michigan.—Mob in Georgia burn a negro alive for murdering a twelve-year-old girl.—Captain Amundsen and his crew have been rescued from huge ice floe in Arctic regions and are safe in Alaska.

Tuesday, June 21.

GREAT BRITAIN is ready to listen to America's plan for disarmament, notwithstanding the fact that her life depends absolutely upon her sea power.—Forty Turk launches loaded with war materials are sunk by Greek ships on the Black Sea coast.—

More Dollars from the Pasture Lot

A Little Care will Give a Longer Grazing Period and More Feed.

By C. C. McCool

Prof. of Soils, M. A. C.

THERE are great opportunities in the improvement of unproductive permanent pasture land in Michigan, both in quality and quantity of forage produced and also in the introduction of permanent pastures on many fields that are too hilly or too badly eroded to produce profitable yields of grain. There are possibilities for the farmer who owns light soils, the nature of which are not ideal for the production of the common pasture grasses. It is probable that no other portion of the farm has been so neglected or mismanaged as has the pasture land. In most cases no attention is paid to the addition of plant food further than that which is returned while the animals are grazing upon it. Very few farmers apply lime to them, although in the majority of instances the soils are in need of it.

In numerous instances permanent pastures in Michigan are not producing the quantity of forage they should, or in fact, could be made to yield. Especially is this true on the lighter soils and in case of those that are quite rolling where erosion or washing of the surface material by the rain has been extensive. Under such conditions the growth starts quite slowly in the spring which means a later turning in of the live stock and a shorter feeding period and in addition the scant growth means a decided reduction in the acre profit of the farm. Our investigations of the composition of the major soil types or kinds of soil in the state point out quite clearly the cause of such.

Nitrogen is Deficient in Many Pasture Lands.

A very important reason is the deficiency of nitrogen in the soil, which usually results in a rather scant growth of forage. This, then, becomes one of the important considerations in the fertilization of these lands. Nitrate of soda under such conditions may be used to decided advantage, especially when the prices of the same are more normal. In the use of nitrate of soda it should be applied early in the spring or just at the beginning of growth. The applications should vary, depending upon the condition of the land, from fifty to one hundred pounds per acre. Usually such treatments result almost immediately in a great stimulation of the non-leguminous plants or such grasses as June grass, red-top or orchard grass and others.

However, if it is not possible to apply this material at this time it may be applied with decided advantage later on in the growing season. Its presence in addition to the stimulation of early growth also results in a marked increase in quantity of the product and also in the later development in the fall. Thus the acre value of the pasture may be appreciably higher. Where nitrate of soda was applied to permanent June grass sod in Eaton county just as growth started, this past spring, the grass was more than ten inches tall on May 10, due to the addition of the nitrate, whereas that growing on untreated portions of the field at this time was less than four inches in length. Striking results are being obtained on a timothy meadow in Ingham county.

Ammonium sulphate may be used as a carrier of nitrogen for the stimulation of pasture lands, provided lime has been applied or is present in sufficient quantities in the soil. This material when used on acid or sour soils intensifies this condition, and best results are not obtained from it until the lime situation has been taken care of. Otherwise it is a very good material for use on such lands. About the same

quantities should be applied as in the case of nitrate of soda. It should be recalled, however, that this material is slightly slower in its action or should be applied to the land somewhat earlier than the above carrier.

Some Soils Lack Sufficient Phosphates.

Another condition which has been revealed by our fertility investigations in the state is a quite common deficiency in phosphorus, especially the available material. It has been a long time considered that the addition of phosphates to soils lacking in them results primarily in increased development of the grain or fruit portion of the plant. It has been shown conclusively, however, that its use un-

best pastures in France are grown on those soils richest in phosphorus.

Where the phosphates are applied to the soil as top-dressings it is usually advisable to use the more soluble or more readily available carriers, such as the acid phosphates or the treble phosphate. If two hundred and fifty pounds or more of the former are added per acre the application should endure for two years, although it may be advisable to add larger quantities in some cases. The treble phosphate should be used in about one-third as large quantities as the sixteen per cent acid phosphate.

Mixed Fertilizers Used.

Where the single fertilizing materials can not be purchased convenient-

Lime can be used with profit on many pastures in Michigan, inasmuch as the majority of our soils are acid or sour in reaction. It may be applied in the form of pulverized limestone at the rate of one or more tons per acre, three or more cubic yards of marl, or as the sugar factory product. The application should be repeated after five or more years. The lime may be applied at any time of year that the soil is sufficiently firm for the operation.

Reinforce Stable Manure with Phosphates.

Where stable manure is available, of course, it can be used to decided advantage for the improvement of pastures. The dressing usually should be light, reinforced with phosphate, and should be uniformly distributed over the land; but unless the vegetable matter of the soil is very deficient it is probably advisable to utilize the manure for the improvement of the cultivated land.

Sweet Clover is a Boon to Sandy Soils.

The sandy land farmer usually has a great deal of difficulty in producing an ample amount of forage for grazing purposes to enable him to keep a proper number of live stock on his farm in order to have a well-balanced farm management system and to keep his soil in good condition. This is true because most of the grasses that are grown for pasture purposes are shallow rooted and consequently suffer very quickly from drouth when grown on light soils, the result being in many instances short pasture in mid-season at the time when ample quantities are very desirable.

This situation may be largely overcome by the growth of sweet clover on such lands. This crop is deep rooted and is very drouth-resistant and when the soil is properly handled produces large amounts of forage and accordingly will stand a great deal of grazing. Live stock experts report that this crop is very nutritious. When it is considered that it is a heavy yielder, is a crop that will stand heavy pasturing and also one that is nutritious, it seems that here are splendid opportunities for the farmer who decides to keep live stock on light soils. In many cases a seeding of this crop to the rolling and hilly lands will result in a decided advantage to the farm. In order to grow this crop certain conditions must be met. It should be distinctly understood that sweet clover is a lime-loving plant and if it is not present in sufficient quantities in the soil it must be added to it. Usually it is necessary to apply lime to establish sweet clover on our soils. There are some instances where gravelly slopes carry a high percentage of lime which will produce sweet clover. It is usually advisable to apply from one-half to two tons per acre of pulverized limestone, or from three to five cubic yards of marl or similar quantities of sugar factory lime to the land for this crop.

In addition our experiments in several parts of Michigan show that the addition of the acid phosphate is usually desirable and where the soils are very light and quite badly run, or infertile, that potash should be added also. Our experiments in Cass county on rather light soils show conclusively that the addition of forty or more pounds of potash per acre is desirable, although a fairly satisfactory growth of sweet clover can be obtained without the use of potash. If these treatments are afforded the soil and some of the plants are permitted to form seed, usually this crop will reseed itself. It may be advisable to add additional small amounts to the land.



Sweet Clover May Prevent Erosion and Afford Much Pasture. This is Growing on a Limestone Gravelly Hillside which Received no Treatment. This Crop Requires an Abundance of Lime; if Not Present in the Soil it Must be Applied.

der such conditions does more than this, tremendously stimulating the root development of plants and thus assisting in forming a good turf and pasture land and also greatly augmenting the productions of the leaf and stem portions of the crop. Instances are numerous in Michigan where phosphorus has increased development of a great diversity of crops, especially early in the season. Thus we are safe in stating that in the majority of cases on depleted grazing lands it will be profitable.

Another point to consider is that the addition of this plant food is known to raise greatly the feeding value of the forage produced. In fact, it is maintained by authorities that the most nutritious pastures in England and the

ly mixed goods may be used with profit. Where the soils are quite poor, and especially on the lighter ones, a mixture containing two or three per cent of ammonia, from eight to twelve per cent of phosphoric acid and two to four per cent of potash may be used at the rate of two hundred pounds or more per acre. On the somewhat better lands the potash may be omitted and if it is desirable to maintain or to introduce clovers in the pasture, only phosphoric acid and potash should be used. This is true because this addition of the nitrogen carrier results in an increase of grasses over legumes as has been brought out in numerous places in this country as well as at the famous Rothamsted Experiment Station, England.

Hubam Clover Prospects

HUBAM clover makes a very slow growth during the first few weeks of its development after which it grows unusually rapid. On many of the fields where the prospects are very discouraging to the person who has never seen this annual sweet clover grow, there will, in all probability be a good yield of seed if the farmer does not become completely disheartened, plow up and devote the field to other crops.

According to Professor Cox, of the Michigan Agricultural College, a good seed yield can be expected where the plants stand as far apart as one foot in the row, although a better yield would result, no doubt, with the plants from four to six inches apart. It is the opinion of those of our own ex-

periment station and college who have had the most to do with the culture of the crop in this state as well as of those who introduced it into the northern districts, that it is not necessary to weed out the small grasses and slender weeds, since the sweet clover will soon grow away from them once it has become well established. On the other hand, these authorities all do agree that vigorous, rapid growing weeds, such as foxtail, ragweed, dock, quack grass, thistles, etc., should be pulled. Blocking is not advisable. One growing plant to every four to ten inches in the row should be the aim of the farmer as he goes over the plot to thin the plants and to remove the detrimental weeds, for this practice will give the best results.

LATE AGRICULTURAL NEWS

DISCOVERER OF HUBAM CLOVER HERE.

PROFESSOR HUGHES, of the agricultural college at Ames, Iowa, discoverer of the famous Hubam annual sweet clover, and Professor Peters, of the U. S. Department of Agriculture, were recently at farm bureau headquarters in Lansing inspecting test plats at M. A. C., set out by the farm bureau to determine which of all the good varieties of alfalfa seed brought in from the northwest are the very best for Michigan conditions. The visitors were very favorably impressed with Michigan methods.

GRAIN MEN TO MEET.

A MEETING of millers, elevator men, farmers and insurance interests was called by Secretaries Hoover and Wallace to discuss the practicability of a plan for warehousing grain and making credit upon it more readily available. After much discussion in which the plan was opposed by the milling interests on the grounds that it would injure the mills at interior points remote from the terminal warehouses, a committee of the various interests represented was appointed to prepare recommendations.

Mr. Hoover's plan is to develop an adequate warehousing system under the present Lever act, whereby the farmer may receive warehouse receipts for his grain which would pass as an order for delivery. It was asserted that no legislation would be needed to carry out its provisions, involving the grading of non-perishable products, such as grain, and storing

them in bonded warehouses, but this point was questioned by men who could see a need for legislation to make the financing end of the proposition effective. These products would be insured and against the warehouse receipts another insurance policy would be written which would guarantee that the warehouse receipts represent products of a standard grade and would insure the owner of the receipts against any moral risks. Friends of the plan claim it would increase the farmer's borrowing capacity, and enable him to hold his grain and facilitate orderly marketing.

Secretary Hoover says that under the plan projected, the country elevator would have the right to ship grain to the terminal elevator, delivering upon presentation of the certificate, at the terminal, grain of the same or of a higher grade. Freight and other charges would be deducted from the sale value. It is also contemplated that there should be some means of settling disagreements as to quantity, grade and quality, since the settlement between the farmer and country elevator must be absolute. It is believed this could be arranged through the submission of samples to the grade supervisor of the department of agriculture, or other nearby authority.

MICHIGAN STATE ABERDEEN-ANGUS SALE.

THE breed promotion sale held at East Lansing, Michigan, by the Michigan Aberdeen-Angus Breeders' Association drew bidders from all parts of the state and a large number

of new breeders were started in the business. While the average price received was not high the consignors feel that the sale was a success as the primary object in holding a sale at this time was to put the cattle into the hands of beginners who could not buy during the reign of high prices. Each consignor had contributed a few head to help boost the breed and a great deal of credit is due these men for the support they are giving the breed.

Wildwood Farms had the top animal in both male and females. The top bull was Black Hero of Wildwood, selling for \$505 to Fred S. Smith, of Hart, Michigan. The top female was the senior heifer calf, Blackcap of Wildwood, sold to Thornhill Orchards, of Thompsonville, Michigan, at \$450. She was one of the nicest things offered from a Michigan herd in some time. Colonel John P. Hutton sold the cattle in his usual masterly fashion. The forty-four head sold for \$6,607.50, or at an average of \$150.17 per head.

URGE TRUTH-IN-FABRIC BILL.

A NUMBER of leading wool growers, including representatives of the National Sheep and Wool Bureau of America, and several state wool growers' associations were in Washington, attending hearings on the truth-in-fabric bill before a sub-committee of the interstate commerce committee of the senate, composed of Senators Watson, of Indiana, Townsend, of Michigan, and Smith, of South Carolina. Among those appearing in defense of the bill are Dr. J. M. Wilson, president Wyoming Wool Growers' Association; J. F. Walker, of Gambier,

Ohio, president of the Fleece Wool States' Association, and George D. Briggs, of New York, who has charge of the wool growers' program before the committee.

It was the contention of Gray Silver, Washington representative of the American Farm Bureau Federation, that "two-thirds of the woolen clothes manufactured are shoddy. This is true because only one-third new or virgin wool is used annually to mix with the two-thirds shoddy which is composed of old rags, cast-off worn clothing, waste and clippings. Yet the woolen garments usually are sold to the public as "all wool" which term is taken to mean virgin wool. It is this "all wool" alias or substitute for virgin wool which the French bill seeks to expose by requiring that fabrics purporting to contain wool shall be labeled to show the amount or percentage of virgin wool, shoddy, cotton or silk.

"The wool grower is not asking that shoddy be not used, but he does insist upon the manufacturer being required to pass his wool on to the public in honest form, labeled so the buyer may know what he is purchasing. Take away the virgin wool and the shoddy would not last long. At this time we have in this country about a billion pounds of wool and a new clip at hand. In normal years we cannot use more than 600,000,000 pounds, and it is the belief of the farmers that the buying public should have the benefit of this great supply of wool and that they should be able to buy properly labeled fabrics showing the amount of virgin wool they contain. The farmers think the passage of this bill is even more important than a tariff on wool."

OUR SERVICE DEPARTMENT

EXTERMINATING QUACK GRASS.

Can you tell me how to get rid of quack grass?—A. J. C.

There are a number of ways to destroy quack grass, their practicability depending largely upon the amount that you have to destroy. If you only have a small patch of it, say a few feet square, it can be dug out with a grass hook, or the patch can be smothered by covering it two or three feet deep with straw or coarse manure. Or, you can take building paper, weight it down with earth so that the wind will not blow it away, in fact, anything that will prevent air getting to the plant, will smother it. It can be smothered another way and that is by cultivation. If you do not allow any living part of the plant to appear above ground, the plant smothers because a plant breathes through its leaves. Small patches can be attended to by hoeing them carefully with a hand-hoe every time that any green leaves of the plant appear above ground. If you keep them cut off in this way for one entire season the plant will be exterminated.

If you have quite a large field, or a whole field for instance, of course it costs a great deal to try to exterminate it by any of these methods that I have described. You could plow the field now, work it up good and the first of July seed it heavily to buckwheat. Buckwheat is a rapid grower and shades the ground thoroughly. This is a process of smothering and if you give careful preparation to the land and get a splendid stand of buckwheat the plant will be almost, if not

entirely exterminated in one season. You can plow the buckwheat early in September and sow to rye if you choose, and seed to clover with the assurance that there will not be enough of the quack grass left to interfere materially in the growth of the crop. In all probability, some of the plant will not be entirely destroyed and it will begin to appear and gain a foothold and after a year or two it may become troublesome again, when you can repeat the process. In this way, you can manage quack grass so that it does very little harm.

You can raise any kind of tillage crop you choose, like corn or beans or sugar beets, on quack grass sod if you are willing to give these crops such thorough tillage as is necessary to keep the quack grass down. For instance, if after every cultivation you go through with a hand-hoe and hoe up every living part of the plant after cultivation and do this once a week or, perhaps, once in two weeks, for one entire season, you will certainly be master of the quack grass, if you have not eradicated it entirely.—C. C. L.

TIME TO CUT PEAS AND OATS FOR HAY.

At what stage should a mixture of oats and peas be cut for hay to get the best results for horse feed?—C. V.

Like all crops intended for hay or forage, they should be harvested before the plants are ripe because as the plant approaches the ripening stage, a great deal of woody fibre has developed which makes the plant unpalatable and materially lessens its digestibility.

Everybody understands that to have good clover hay, it ought to be cut before the heads all turn brown, in fact, when clover is in full bloom it contains the largest amount of digestive nutrients. Now, with peas and oats the principle is just exactly the same. Oat hay, if the plant is cut when the oats are in the milk, contains the largest percentage of digestive nutrients, that is the whole plant. You are not after grain, you are after digestible forage.

The same way with the pea plant. Just as soon as the pods are formed before the peas are really developed, is the proper time to cut this plant. Sometimes the pea plant and the oat plant do not develop at exactly the same time and the best rule to go by is to cut the oat plant just as it is in full bloom or as soon as you can thereafter. Do not let the berry get out of the milk stage and the crop is cured and taken care of similar to clover hay.—C. C. L.

CRIPPLED CHICKS.

The first fifty chicks hatched out in the incubator were smart and strong, and the rest hatched seemed to have no use of their legs, could just crawl along. Their legs were stiff and stuck straight out at each side. Also quite a number died in the shell, the eggs were pipped but the chicks did not have strength enough to get out. Can you tell me the cause of this trouble?—F. S.

When a large number of chicks die in the shell and there are a lot of cripples, it is often an indication that the incubator has overheated at some period during the hatch. There are apt

to be a very few cripples in a large incubator hatch, even when conditions are as ideal as possible. But when a large per cent are in that condition it means errors in incubation. The only remedy is to select eggs as fresh as possible from vigorous breeding stock and follow the directions of the incubator manufacturer very closely regarding the management of incubator.

R. G. K.

HAY CROP FOR LIGHT SOIL.

I am plowing three acres that is mostly light sand. I have asked several farmers about it and some say one thing and some another. At Midland they told me that if I would put twenty pounds of vetch and one bushel of oats to the acre any time this month, it would make good hay. Does that make good hay for horses; if not, what would you advise me to sow on the three acres to make hay? Does sand vetch make good cow feed?

Midland Co. F. S.

Here at the station the past two years we have sown a mixture of two bushels of oats and twenty pounds of sand or hairy vetch per acre the latter part of April and the first of May, and have found it to be a very good hay crop. The hay is very readily eaten by either horses or cows. When sown later than the first week of May it has been our experience that the yield was much less than the early sowings. Consequently I would not recommend sowing oats and vetch at this late date. Believe you will secure better results by sowing twenty-five pounds of Sudan grass per acre. Sudan has about the same feeding value as timothy and should be cut for hay just after heading out.—C. R. MEECE.

Make the Skim-Milk Pay

Valuable Food Nutrients Should Not be Wasted

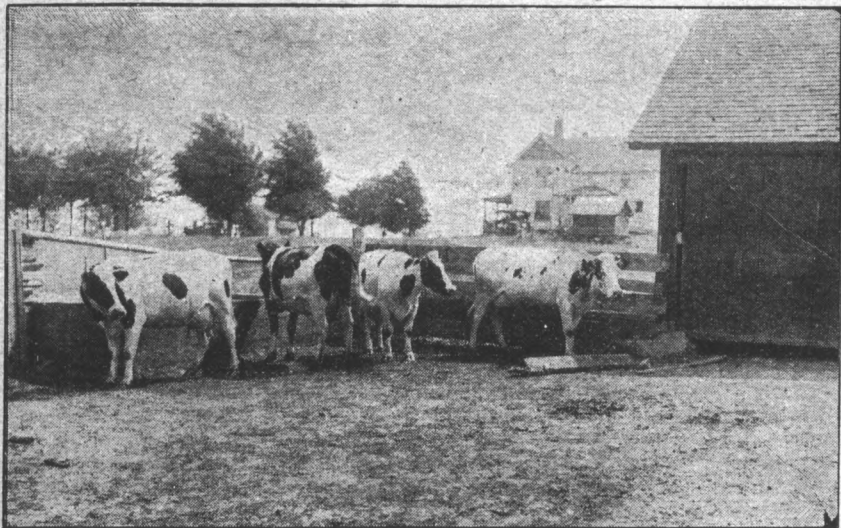
By Russell A. Palmer

SKIM-MILK has, in the past, been regarded as a product only fit to be fed to calves or hogs. True, it makes excellent feed for these animals but it does not bring in actual cash to the farmer. How can this product be converted into ready cash? Several means to turn skim-milk into cash have been tried but as yet none seem to compare with the manufacture of some form of skim-milk cheese.

At the mention of manufacturing cheese the average farmer thinks immediately of an elaborate factory with high-priced equipment. Such equipment, although it makes the work easier, is not essential. Experimental work has shown that just as good results can be obtained on the farm, with the equipment available, as can be obtained in the modern cheese factory. The main reason for the good reliable product of the cheese factory is the extreme care that is exercised

market in practically all groceries and meat markets at from ten to fifteen cents per pound. At this figure the manufacture of cottage cheese is profitable.

Another way of utilizing the skim-milk profitably is to make cream pimento cheese. This cheese requires some manufactured products, such as rennet and artificial cheese coloring, in its making. To make this variety of cheese, take about thirty pounds of skim-milk—care must be exercised to make sure that the milk is clean; if any doubt exists it is best to pasteurize the milk—and bring it to a temperature of about seventy-two degrees F. Add about half a pint of clean sour milk and mix it in thoroughly. Next take two cubic centimeters of cheese color and mix it in thoroughly. After the color has been mixed in, add one c. c. of rennet and mix it in well. Allow the whole mixture to coagulate



In these Days when Competition is Rapidly Growing Keener, it is Important that the Dairyman Study Carefully the Various Phases of His Business, to the End that Production Costs be Reduced to a Minimum and Receipts Increased to their Maximum.

in all operations. In other words, the human element is the controlling factor in the production of good or inferior cheese.

Although some cheddar or American cheese is made from skim-milk it is best utilized in the production of either the cottage cheese or the so-called pimento cheese.

In the home manufacture of cottage cheese the clean, wholesome skim-milk is placed in sterile containers and removed to a warm place, one about seventy-two degrees F., and left there until it is well curdled. It usually requires about forty-eight hours for the milk to become well curdled. When the milk is well curdled it is broken up into small pieces of uniform size. The broken curd is then placed on the stove and brought up to about ninety degrees F. This heating process should be very slow, taking from thirty to forty minutes. When the desired point, ninety degrees F., is reached the temperature is kept constant until the whey appears clear. It requires about fifteen minutes for the whey to separate from the curd. When the separation is complete the whey is withdrawn and the curd placed in muslin sacks and allowed to drain. The curd, when thoroughly drained, is salted at the rate of one pound of salt to one hundred pounds of curd. If a better quality of product is desired, cream should be added to the drained curd at the rate of one ounce to each pound of curd. This mixture is then salted at the same rate as the plain cheese.

The product, cottage cheese, is then placed in some manufactured containers or moulded into balls weighing one pound and wrapped in oiled paper. In this form cottage cheese finds a ready

overnight; the following morning turn the coagulated mixture into muslin sacks and allow it to drain. When the curd has drained sufficiently, turn it out of the sacks into a pan and mix with salt and pepper to suit the taste. One small can of pimentos should then be ground fine and mixed into the cheese. This operation completes the product. It can then be placed in suitable containers or sold by the bulk. This variety of cheese is more profitable than cottage cheese as it brings from thirty to forty cents per pound.

The cream pimento cheese will keep a long time even though it is not placed on ice. However, both brands of cheese are much better if used immediately or at least as soon as they are thoroughly cooled.

GOGEBIC COUNTY AGENT GETS SUNFLOWER SEED.

THE Gogebic County Farm Bureau is laying in a supply of the mammoth Russian variety of sunflower seed, which will be distributed from its warehouse. The agent regards this as superior for tonnage and feeding. Mr. Gunderson has planned a farmers' visiting day auto tour of the county for late June, with a view to inspecting the best dairy farms of the county. The latest report of the Gogebic Cow-testing Association awards the maximum production to the cow, "Antoinette," with 1,788 pounds of milk, while a cow owned by C. E. Johnson yielded 61.8 pounds of butter-fat in the thirty-day period covered by the report. The list includes twenty cows with records of more than forty pounds of butter-fat or 700 pounds of milk in the month ending April 30, 1921.



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LATE FARM BUREAU NEWS

WOMEN ACTIVE IN FARM BUREAU WORK.

WOMEN are taking an active part in State Farm Bureau affairs, particularly in Wayne and Monroe counties where the husband and wife farm bureau membership plan has been adopted—the membership of the husband entitles his wife to an active membership in the County Farm Bureau, according to action taken by those County Farm Bureaus, says Mrs. Edith M. Wagar, of Monroe county, the woman member of the State Farm Bureau executive committee.

Mrs. Wagar has been urging similar action to other county farm bureaus of the state when speaking before them. She is also urging farm women to take a more active interest in the State Farm Bureau and its work.

RELATIONSHIPS OF GRAIN GROWERS AND FARM BUREAU.

PRESIDENT NICOL, of the State Farm Bureau, represents Michigan at the conference of Midwest States' Farm Bureau presidents and secretaries that met at American Farm Bureau Federation headquarters in Chicago to consider problems of relationship between the American Farm Bureau Federation and the U. S. Grain Growers' Inc., the farmer-owned national cooperative grain marketing association launched as a result of the labors of the Farmers' Marketing Committee of Seventeen. Mr. Nicol is a member of the board of directors of the U. S. Grain Growers, Inc., also president of the Michigan State Farm Bureau Elevator Exchange Board of Control.

FRIDAY RECOMMENDED TO HEAD M. A. C.

AT the regular meeting of the executive committee of the Michigan State Farm Bureau, Prof. David Friday, of the University of Michigan, was recommended for the presidency of the Michigan Agricultural College to succeed President Frank S. Kedzie. The committee also passed a resolution of appreciation of the long years of indispensable service rendered the college by Dr. Kedzie, both as dean of the chemical department and as president and expressed the hope that his long years of experience may still continue to be available for council and guidance.

MANAGER UPPER PENINSULA BRANCH APPOINTED.

MR. H. G. AMOS, former county agent in the upper peninsula, now located in the creamery business in Manistique, has been appointed manager of the proposed State Farm Bureau branch office for the upper peninsula. He will take up his duties at Escanaba about Aug. 1, it is reported. The upper peninsula branch offices of the farm bureau will act as a clearing-house for all upper peninsula farm bureau affairs.

WOOL GRADING CONTINUES.

CONTINUED large receipts of wool at the various State Farm Bureau wool grading stations last week put the pool well along on its way to the two million mark, said the wool department at the close of the week. Some idea of the task of accounting for more than one million pounds of wool gathered and graded to date may be gleaned from the fact that the wool gathered and graded to date may be gleaned from the fact that the wool

department office works evenings right along and is now making preparations to expand its working quarters and take on enough help to keep up with the mass of figures that are tumbled in every day.

Grading dates for the week of June 27 are as follows:

Monday.—Lakeview, Armada, Battle Creek, Brooklyn and Perry.

Tuesday.—Fremont, Saginaw, Butternut, Hanover and Lake Odessa.

Wednesday.—Hart, Chesaning, Ionia, Concord and St. Johns.

Thursday.—Big Rapids, Merrill, Clarksville, Springport and Fowler.

Friday.—Barryton, Midland, Clarksville and Richland.

Saturday.—Barryton, Coleman and Kalamazoo.

CONFERENCE ON R. R. RATES.

REPRESENTATIVES of the Department of Transportation of the American Farm Bureau Federation appeared at the Interstate Commerce Commission hearing in Denver on June 1 and in Chicago on June 6 to present evidence showing why railroad rates should be reduced. The hearings involved the rates on live stock in the western district. It was proposed that the commission remove the thirty-five per cent general advance established August 26, 1920.

Farm Bureaus Plan Cooperative Coal Buying

LATE summer and fall may find the organized farmers of the middle west striking a hard blow at the high cost of heating by buying their threshing and winter coal supply direct from the mines through a cooperative coal purchasing organization under the auspices of the American Farm Bureau Federation. Preliminary plans to establish such an organization were formulated at a meeting of representatives of the State Farm Bureaus of Minnesota, Michigan, Wisconsin, Iowa, Illinois, Indiana, Ohio and West Virginia held in Chicago June 13.

Easily one million tons and possibly five millions might be handled under the plan if its full possibilities were to be utilized. By avoiding one or more brokerage charges, reducing the freights by direct routing, and cutting local handling charges to an actual cost basis, substantial savings to farmers could be affected.

The conference was called by the American Farm Bureau Federation primarily to hear the details of a plan proposed by the West Virginia Federation which already is acting as the local agent in the purchase of coal being supplied to farm bureaus in Maryland, Virginia, the Carolinas and to a few counties in Wisconsin. Under this plan the West Virginia organization would make the contracts with the mine operators, obtain accurate analyses of heat value and ash of various coals, furnish inspectors to visit the mines from time to time and to see that the coal is being properly picked, cleaned, and screened while loading, and in the event of a car shortage to see that the just proportion of cars are allotted to farm bureau orders.

During the conference it was brought out that the states represented, notably Minnesota, Wisconsin, Iowa and Illinois, use more coal from the southern Illinois field than from West Virginia, even though the latter produces coal of a higher grade. This has been especially true since the freight rates advanced. As a result, the tentative plans were broadened to include the purchase of coal from whatever section the best value could be obtained.

A cooperative coal buying committee was appointed to consider further the feasibility of the entire plan and to draw up the details of the arrangement with West Virginia. Their report will be submitted to a conference of farm bureau presidents and secretaries which meets in Chicago on June 20. Although the report is not yet complete, some of its provisions are:

That orders for coal so far as possible be placed with operators located on railroads, or routed with the trans-

portation company which will give the cheapest freight rate to the delivery point, except in cases in which a special kind of coal or a special routing is requested.

That there be furnished the various State Farm Bureaus and to their local organizations when requested, market quotations on the twenty-fifth of each month for the succeeding month.

That the State Farm Bureaus use a standard form of order blank and when orders are placed furnish each farm bureau with a duplicate copy of bill of lading and invoice.

That an examination of all records by any authorized representative of the American Farm Bureau Federation be allowed upon presentation of proper credentials.

That the State Farm Bureaus give publicity to and encourage their respective cooperative elevators, exchanges, farmers' clubs, and individuals to pool their orders for coal with their respective central organizations and furnish to these local groups quotations, order blanks and other plans and information which will help them in meeting their requirements for coal.

That the State Farm Bureaus endorse and forward promptly to the purchasing agent in the state through which coal is purchased, all orders received by them from their local organizations or individuals.

The committee is expected to investigate the price of coal from other fields to see whether midwest farmers can be provided with coal from other than West Virginia mines at a cheaper rate. The West Virginia quotation for the best grade of soft coal was \$3.50 per ton f. o. b. mines. Poorer grades from the same section ran as low as \$2.00.

Purchases would necessarily be for cash with payment upon delivery so far as the state and national organizations were concerned. Local arrangements might be made, however, to carry a supply of coal available to farmers unable or unwilling to take their full requirements early in the season.

It was brought out that the coal trade confidently expects coal prices to advance after another eight or ten weeks when the fall demand starts so that it will be highly desirable to start the project promptly and urge farmers to place their orders early; that low prices for coal never can be obtained until coal production can be distributed more uniformly throughout the year.

Michigan was represented at this conference by J. I. Nicols, president of the Michigan State Farm Bureau.

OTHER STATES FOLLOW MICHIGAN IN BETTER CREAM CAMPAIGN.

SOME manufacturers of butter in other states are already buying cream on a graded basis, similar to that urged by the Michigan Association of Creamery Owners and Managers, the State Farm Bureau is advised. Last week the campaign which Michigan creamerymen have been waging in the interests of delivery of sweeter and higher quality cream for butter-making purposes reached a climax in "Better Cream Week." Arrangements are already under way for consolidating the educational gains made by the week's demonstrations.

Manufacturers who have held it impracticable to grade cream and pay for it, are declared to be doing some serious thinking about this method of buying cream. Some weeks ago the market price for extra butter was thirty-two cents a pound in Chicago, and first-grade butter was selling for less than twenty-one cents a pound, says a Wisconsin authority. Some of the butter manufacturers who supply that market lost ten to twelve cents a pound on the butter-fat purchased, and the producer of high-grade cream was also a loser under the system of buying which does not take into consideration quality in cream.

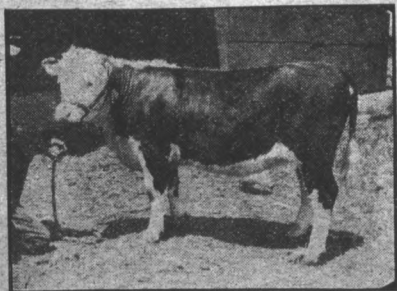
The plan that Michigan creamerymen hope to have working within the year would grade cream into two general classes—first and second—and make a difference of one to several cents per pound of butter-fat, depending upon which class the cream attained. Demonstrations on cream grading will continue at the various creameries, says the creamery association. The demonstrations are claimed to touch fifty thousand milk producers each week.

TO STUDY COMMUNITY MARKETING IN DETROIT.

A COMMITTEE composed of business men of Detroit, and farmers from nearby counties, is at work to determine the advisability of establishing a system of community markets, operated on a cost basis, in Detroit to expedite and cheapen movement of farm produce to city people.

The plan for the new marketing system was outlined generally at a meeting last week of the agricultural division of the Detroit Board of Commerce attended by about fifty business men of Detroit, leaders of farm organizations in Wayne, Monroe, Washtenaw, Oakland, Macomb and Lapeer counties, and leaders of the state federation of labor.

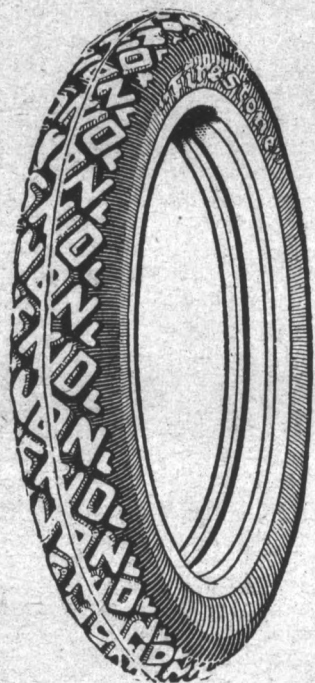
It was suggested that these markets would operate supplementary to, but apart from, the municipal Eastern and Western Markets in Detroit, which were established when Detroit was approximately one-fourth as large as it is today. The proposal, as discussed, was the establishment this summer of a community market on one of Detroit's main arteries of travel in a residential section, three or four miles at least from downtown. This would be to determine the advisability of expansion next year, including the establishment of small community markets on all of the main arteries of travel.



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News From Cloverland

By L. A. Chase

SCENIC AUTO TRIPS THROUGH CLOVERLAND.

TOURISTS, let me state here, who intend a trip through Cloverland this summer—and there are very many who do, according to the inquiries received at the Marquette office of the Upper Peninsula Development Bureau—should understand that frequently the most attractive camp-sites, and points of scenic beauty and for fishing, do not lie directly on the main trunk-line routes, but, like Eagle Harbor and Copper Harbor, are at the dead end of the highway. The extremity of the Keweenaw Peninsula, reached along Highway No. 15, is one of the most beautiful regions in Michigan, rugged and wild, an old, abandoned mining country. There are rocks, lakes, waterfalls, trout streams, extensive second-growth woodlands, and Lake Superior, with its sometimes magnificent shore-line, on either side. Or take the Skanee district east of Huron Bay, reached by way of L'Anse, and the Huron Mountain country beyond it. The falls of the Au Train in Alger county, are close to the main road to Munising, but none would guess their presence, if uninstructed. The river tumbles over a steep limestone slope, where the Cleveland-Cliffs Iron Company has a power development. The gorge below is beautiful, and a flood of delicious spring water pours out of the limestone cliffs at its side, affording an ideal situation for a camp-site, and this is provided. There are many other such points known to residents, which the piker will not want to miss, if he cares for the beauties of nature rather than seeing how many miles he can get over in a day with damage to his nervous system and pocket-book and nothing to show for it.

FISH IN CLOVERLAND.

THE New Englanders used to speak of the ocean as their "farm," and the same may equally be said of the upper great lakes. As a farm which can be worked in the winter, as it is now often worked, lakes Superior Michigan and Huron offer real opportunities for making a good living, and the Michigan Fish Commission in one of its former reports is responsible for the statement that an acre of water will produce more than an acre of land. It must be said, however, that with the lakes, as with the land, their natural productivity is diminishing, and require replenishment. That is the reason for the demand for a new and enlarged hatchery at Sault Ste. Marie either on Michigan's own account or in association with the adjacent province of Ontario, Canada.

The time was when Lake Superior whitefish cost two and a half to five cents per pound. Indeed, there was a time when the Indians caught them with their hands in the rapids at the Soo. It is not like that now, and it is hoped that the fish commission, or the new conservation commission will do the trick that will help to restock our depleted fish supplies in the great lakes and interior waters. With this in view one hears little local opposition to the proposed rod license law for domestic fishermen, when the returns are to go to the propagation of a new fish supply for Michigan. One fish commissioner referred enthusiastically to the new fish hatchery in process of erection at Manistique on the Lake Michigan shore, to be one of the finest in the world, he says, and which will yield perch, bass, blue-gills and other varieties. Meanwhile the

Upper Peninsula Development Bureau, with the assistance of Dr. John Lowe, professor of biology in the Northern State Normal School at Marquette, is making a survey of the fish resources of the waters in and adjacent to the northern peninsula. Dr. Lowe is on most friendly and intimate terms with local commercial fishermen, and is afforded every opportunity by them for learning what he can of our fish resources.

U. P. HISTORICAL SOCIETIES ACTIVE.

IN recognition of the fact that Gogebic county is "grown up," as Dr. Sigurd Nelson, of Ironwood, expressed it, a county historical society was organized last winter. There are already similar organizations in the copper country, Marquette, Delta, Menominee, Chippewa and a few other counties north of the Straits—some of them the most active and well supported in the state in the judgment of the Michigan Historical Commission. It is proper work for such a society to preserve books and records relating to the history of the county, collect biographical material, hold meetings at which papers on historical subjects are read, place markers at points of historic interest in the county, and to cooperate with the Michigan Historical Commission in whatever will promote local historical study and interest. Some large collections of local historical material have already been built up in northern Michigan counties, notably in the copper country and Marquette county, with donations and funds gathered in from membership dues and other sources. Gogebic is a large and important mining and agricultural and mining county. Its mining development is less than a half-century old, but much has transpired there that ought to be permanently recorded, and the inauguration of this latest historical society in Cloverland is very commendable.

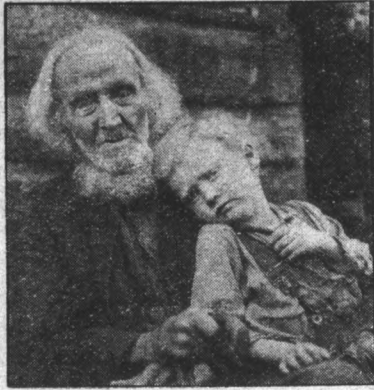
CLOVERLAND RANCHING.

LOADING pens for several thousand head of cattle and a transfer line between the Chicago, Milwaukee & St. Paul Railway and the Chicago & Northwestern, are being installed for the use of the Triangle Ranch near Amasa, Iron county. Ranch No. 1 has some 1,400 acres of tillable land and meadows to furnish feed for the stock of the ranch, it is stated. Roads into the ranch and fourteen miles of fencing have been built during the past season, and material for twenty miles of additional fencing has been assembled, is the report. Several camp buildings are up and others in the process of erection. It is said to be the purpose of the owners to construct a saw-mill in the spring to provide lumber for the ranch. Logs are now ready for sawing. Eventually tame grasses will be sown on cleared land. The manager of the ranch is said to regard brushing the land and sowing of tame grasses as a pre-requisite to success in ranching in this country. He states that native woods grasses have less fattening qualities than tame varieties. He insists that it is as easy to winter cattle here as on the western range. It is a problem of shelter, but material for constructing shelters is amply at hand. But ventilation and out-door life and exercise are essential, he says. He also believes it is better to breed and raise cattle here than import them for fattening from the western range. The company will handle the Hereford breed of cattle.

WORLD EVENTS IN PICTURES



Passengers ride in comfort in Paris-London air liners.



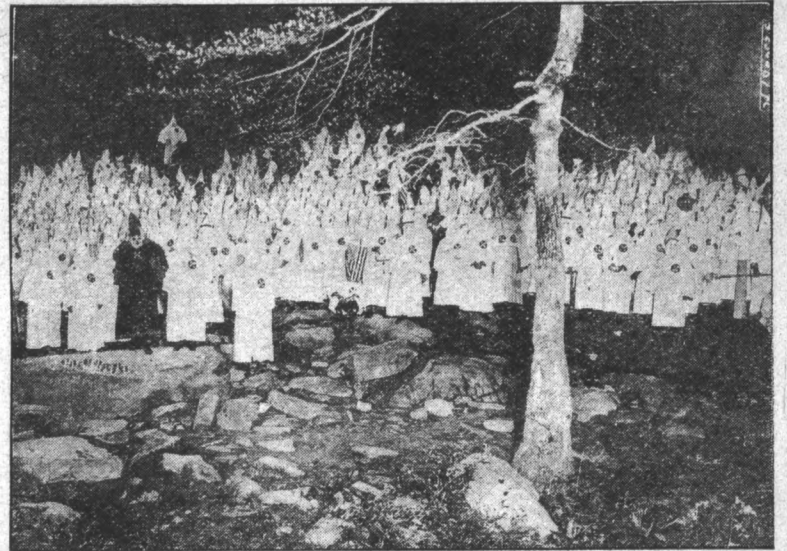
Aged father and five-year-old son.



Detectives wear masks to prevent criminals identifying them.



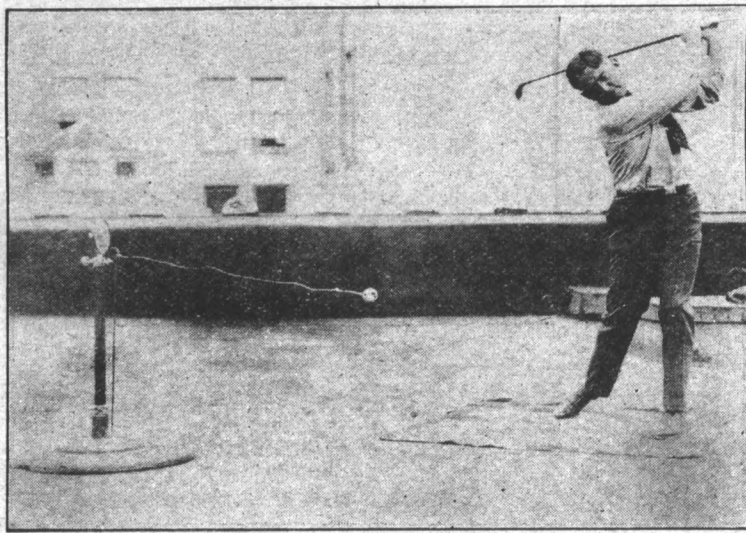
Michigan ministers have hotly contested ball game at the annual rural church conference at M. A. C.



The Ku Klux Klan is reorganized for constructive and lawful work in the south.



Discoverer of south pole, Amundsen, makes Arctic investigations.



Los Angeles man invents a "drive meter" for golf practice on the roof of his house.



Alpine costume adopted for climbing U. S. mountains.



Some rural communities have the convenience of getting their reading from rural library wagons.



The Chinese are friendly to American missionaries, and place great confidence in them.

THE CLAN CALL

By HAPSBURG LIEBE Copyright 1920, Doubleday, Page & Co.

"Now, sir," said the old lawyer, "I feel like talking. Let's see, you gave your man Hayes orders to carry the work right along as though nothing had happened, didn't you? And the sheriff is to go back the day after tomorrow to arrest two or three Balls and two or three Torreys, to see what he can find out concerning the dynamiting of the two buildings and the trestle—today was not a good time to make the arrests. Am I correct?"

"Correct," nodded Dale.

Bradley regarded his cigar thoughtfully.

"Now," he said in a low tone, suddenly lifting his gaze to the other's face, "tell me about the thing that brought you here. Don't omit even the slightest detail. Nobody can overhear you if you will hold your voice down. These walls are very thick, you see. Well, you may begin."

In carefully guarded tones, Bill Dale gave a straightforward account of the whole unfortunate occurrence. The major listened intently to every word of it, so intently that he allowed his cigar to go out. Often he stopped his client and asked him to repeat certain portions of the story in order that he might be doubly sure of a point. Dale's cigar, too, was black and cold long before he had finished.

As Major Bradley rose to ask the jailer to come and let him out, Dale muttered downheartedly:

"Tell me, major: what do you think of my case? It looks rather bad, doesn't it?"

"Not bad enough to warrant your feeling blue over it, my boy!" said Bradley, showing his polished white teeth in a smile that was meant to be reassuring. "I think we'll get you out of it. Anyway, don't worry about it. Worry will kill a cat, they say! You didn't kill Adam Ball. John Moreland had taught you how to shoot pretty well; and if you took even half as careful an aim as you think you did, you couldn't have missed Ball's hat by so much."

"I have an idea, Dale," he resumed, "that if we knew who fired that third shot we'd know who did for Ball. It might have been done in order to save you. Ball was noted, I understand, as an unfair and tricky fighter. He might have been trying to trick you when he rose and fell groaning. Perhaps he meant to draw you into the open, that he might have a clean shot at you. Eh?"

Dale shook his head gloomily.

"Hardly plausible, major. In that

event there was nothing against the man whose bullet finished Ball, because he did it to save me; and he would have owned to it and prevented my arrest. A man who liked me well enough to kill Ball to save my life would like me well enough to confess and save me from suffering for it. I am sure of that, major."

"Ah, my boy," smiled the older of the two, "you don't yet know the mountain heart. Jail is a terrible thing to the liberty-loving mountaineer. But love of you, and love of fair-dealing, will soon overcome the fear of jail, and you will be freed—if what I very strongly suspect proves to be well founded. I'll leave you now, Dale. I'll see you in the morning, sir. Good-night!"

When his optimistic attorney had gone, Dale glanced once more at the to him miserable line from Dante's "Inferno," and began to remove his outer clothing preparatory to going to bed. He did not feel anything like so confident concerning the outcome of his trial as Major Bradley evidently felt. Then he became even more dejected, and he told himself that the major had spoken reassuringly merely to help him keep up heart.

The night passed, and another bright summer day dawned, and in the Cartersville jail there was one prisoner who had not slept at all. Each of those long and heavy black hours had been an age to this prisoner to whom jail was so new.

At noon a furious windstorm, accompanied by much vivid lightning and blinding rain, sprang out of the west and began to sweep the countryside, and out of the lowering wet gloom there came one to deliver Bill Dale. He was a mountaineer, young and stalwart and strong, and about him there was much of that certain English fineness that was so striking in his father.

He entered the low, square building of brick and stone and stopped in the center of the corridor, where he stood, while water ran from his wet clothing and gathered in little pools at his feet, and looked to his right and to his left. Dale saw him, and cried out in surprise:

"Caleb!"

Caleb Moreland walked straight, his head up and his shoulders back, a splendid picture of virile young manhood, to the end of the corridor. He gripped two of the door's hated bars, bars that had long been worn smooth by other human hands; he pressed his

smoothly shaven, sunburned face against the iron, and smiled.

"How are ye a-feelin' by this time, Bill? It's some hell of a place, ain't it, now?"

Dale took a step toward him. "Well, a queen's boudoir is nicer. What are you doing here, Caleb?"

"I've come to set you free," said Caleb Moreland.

Dale stared unbelievably. "But that is impossible, Cale. How could you set me free?"

"Call Tom Flowers, and I'll sight ye."

From the door of his office, Sheriff Flowers had been silently watching the mountaineer. Dale called, and the officer came immediately. Caleb Moreland turned from the cell door and faced him.

"I've come here to own up to the killin' o' Black Adam Ball," began the young hillman.

He swallowed, went a trifle pale under his tan, and continued bravely:

"Bill Dale thar, he never done it. I am the one 'at done it. Bill he shot at Adam, but he missed—Adam had done shot at Bill fust, y'understand, Tom. But I didn't miss. I don't never miss. I'm a plumb tombstone shot. They allus rules me out at any shootin' match. I'd ha' owned up to it yest'-day, but the thought o' jail had me skeered bad. I jest cain't let as good a man as Bill Dale thar suffer fo' a thing I done myself. So you let him out, Tom, and put the right man in thar."

Flowers had a good heart, and this touched it. But he was not very much surprised.

"Tell us about it, Caleb," he requested.

Caleb looked toward Dale, then he faced the lord of Cartersville's little prison again.

"Well, shuriff, when I seed Bill Dale go off toward the trustle by hisself and alone, I knowed right then he was in danger o' bein' laywayed by some o' them thar lowdown Balls and Cherokee Torreys. So I decides to foller after him and gyard him, without him a-knowin' anything about it, which same I done. When he met Adam Ball—"

He broke off abruptly. There was a rather shrewd twinkle in his clear grey eyes.

"Go on," urged Flowers.

"I reckon I won't," smiled Caleb, and his eyes were still twinkling. "I reckon I won't do no more talkin' jest now. A man can awful easy talk his fool

head off, ye see; pap allus said more men had been hung by their mouths 'an by any other way. Yes, I reckon the proper place fo' me to do my big talkin' is in the 'co'te-house at my trial. Lock me up, will ye, Tom?"

"We'll see," said Flowers.

Forthwith he despatched a deputy for Judge Carter and Major Bradley, who hastened to the jail.

An hour later Caleb Moreland was the occupant of the cell at the end of the whitewashed corridor, and Dale was mounting his bay horse Fox to ride back into the heart of the everlasting hills. The rain had gone as quickly as it had come, and the skies were once more blue and bright. Everywhere there was the lazy droning of wild bees and the sweet odor of honeysuckles.

He arrived two hours after night-fall. The Morelands were glad to see him, and the Littlefords were glad to see him. There was rejoicing there in the broad valley that lies between David Moreland's Mountain and the Big Pine. Everybody had been expecting him, and many were the pairs of eyes that had been watching for him. He found himself suddenly wishing, with a tightening at his throat, that his father could know how much bigger and how much better it was to be thus esteemed than to be wealthy.

Luke took charge of his tired horse and led it away to the old log barn and to some fifteen ears of yellow corn. Luke's father then escorted him proudly, the guest of honor, in to one of Addie Moreland's incomparable old-fashioned suppers, which was none the worse for being late. Several Littlefords sat at the long, home-made table.

John Moreland turned up the light a little, and cracked a worn but timely joke; then he looked toward one of the men whom he had fought throughout many years, and muttered into his thick brown beard:

"Saul, friend, will ye do us the favor o' axin' the blessin' ef ye please?"

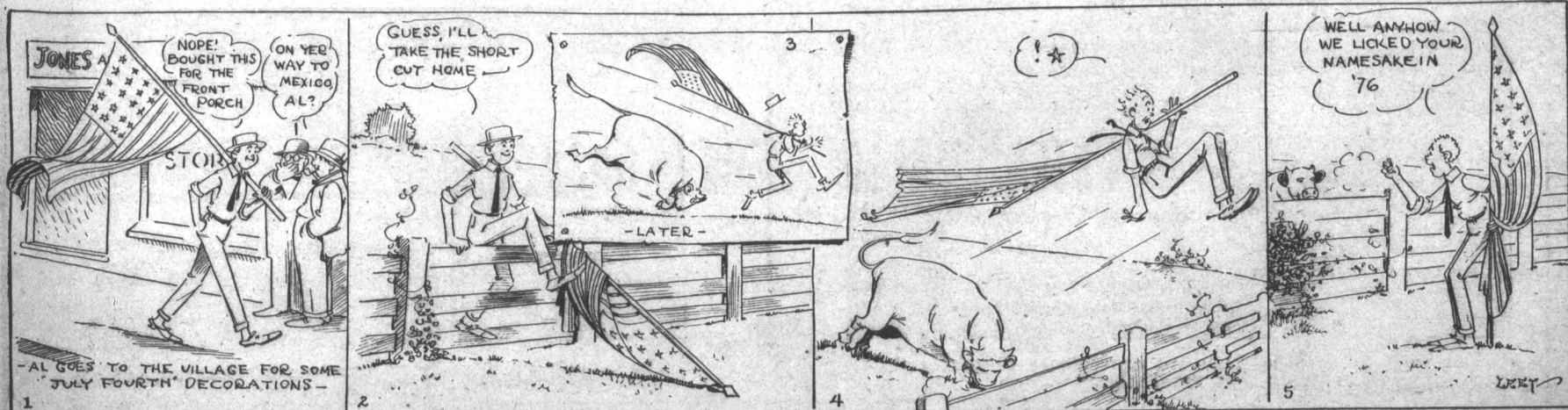
"Shore, John, o' course."

Saul Littleford, the very illiterate, laced his big fingers together across his plate, bent his head, and told the good Almighty that they were all very much obliged to Him for the fine supper they had before them, for Addie Moreland who had cooked it, for peace, and for Bill Dale.

It was almost midnight when the visitors left. They had been sitting outside, on the honeysuckle-scented front porch and in the cabin yard. At

AL ACRES—Al is Attacked by an Old Enemy, But Saves the Flag.

—By Frank R. Leet



last Bill Dale and John Moreland were left together on the porch.

"There's a thing that has puzzled me since the moment I got here this evening," said Dale, after a little period of silence save for the faraway baying of a hound, the lonesome cry of an owl, and the gentle murmur of Doe River the beautiful. "Why is it that nobody seems to be grieving over Caleb's being in jail?"

The big hillman's answer came almost sharply: "No Moreland ever grieves over a sacrifice, Bill."

Dale sat up straight. "A sacrifice! What do you mean?"

This time the big hillman's answer came slowly. "I mean 'at Cale he's a-takin' all o' the load off o' yore shoulders 'at he can. Cale he's a takin' yor place in jail ontel the trial comes off, which'll be at the October term o' co'te. He trusts you to come back and set him free on the day o' the trial. O' course you'll do it; we hain't never doubted that fo' one little minute, Bill. But it wasn't all done fo' yore sake. You're the hope o' the Morelands, and you can do a heap more here 'an Caleb can."

He leaned toward Bill Dale and went in a confidential tone:

"And I can tell ye this here: ef you are found guilty o' killin' Adam Ball, and sentenced fo' even one year, the Morelands and the Littlforde is a-goin' to take ye from the officers and turn ye loose with a good, long start on the law."

"Wouldn't that be rather—"

Dale broke off because he had seen the tall figure of a man appear in the open gateway. It was By Heck, and he spoke.

"Hello, John Moreland."

"Hello yeself!" growled Moreland, who was not at all pleased at the interruption.

Heck advanced, carrying his rifle by its muzzle. He halted with one foot on the stone step.

"I've got news fo' ye, Bill," he said, recognizing Dale even in the darkness. "I've been a-eavesdrappin' up at old Ball's house, and I had to choke about ten dawgs to death to do it. All o' my fingernails is tangled up wi' dawg-hair. Bill, old boy, them Balls has done swore by everything on earth and in Heaven and in Torment 'at they'll kill you ef the law don't. And them low-down Cherokee Torreys is all with the Balls. Igo, ye'd better watch out, Bill."

John Moreland rose from his chair.

"Much obliged to ye, By. And good-night to ye. Le's go into the house, Bill. I didn't think them polecats had had that much narve—and I don't hardly believe it yit. It might ha' been white licker a-talkin'. Their kind o' white licker ain't hawnest, like By Heck's is, though his'n is bad enough. Their kind'll make a man resurrect his dead enemies out o' the graveyard and shoot 'em up all over ag'in. It ain't a-goin' to do a great deal o' harm, Bill, ef ye don't light no lamp when ye go to bed. A man can't never tell jest what's a-goin' to happen."

"And the Ball-Torrey outfit—" Dale began, when the Moreland chief cut in:

"Ef the Ball-Torrey outfit pesters you, they're every one purty durned apt to die with what is knowed generally in this section as the rifle-bullet disease."

(Continued next week).

DEFLATION.

An indication that we are going through a period of deflation: A Philadelphia undertaker advertises that funeral prices are lower an offers to make many money-saving suggestions.

ECONOMY.

The men who invented pickled pigs' feet and ox-tail soup were undoubtedly trying to make ends meat.

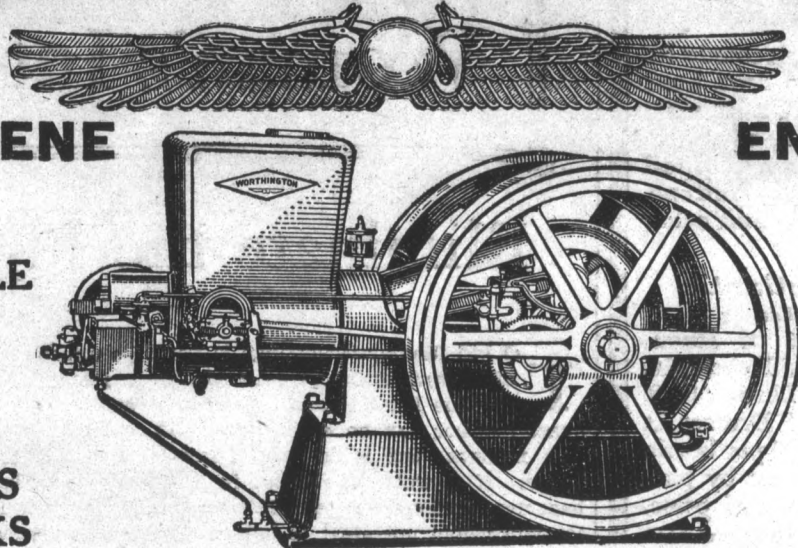
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None is poor but the mean in mind, the timorous, the weak, the unbelieving. None is wealthy but the affluent in soul, who is satisfied and floweth over.—Tupper.

Woman's Interests

Eliminate the Fly in Its Breeding Place

By D. B. Whelan

To kill flies by "swatting" is very slow work and poor efficiency, to say the least. It is true that a great number can be exterminated in this manner, but it is hardly worth while. If a waterpipe burst in your basement and started to flood your cellar you would not start to bale it out. The first thing you would do would be to stop the leak, and then set about ridding the basement of water. So why resort to swatting the fly when they are breeding faster than you can possibly stop them?

The thing to do first, is to find out where they are breeding and then either dispose of it or else fill those that are propagating there. After that is done you can swat them if you wish, or apply other remedies that are better. Of course, if a few flies are bothersome by all means swat them if need be, but don't try to rid the entire house in this manner. If you spent all of your time doing this and nothing else, you could not kill the progeny of one pair of flies, to say nothing of the tens of thousands that are breeding in many places on the farm.

To begin with, there are at least eight generations of flies in this latitude. At the end of a month one fly will have given rise to many millions of progeny, while at the end of the summer the number of offspring will

be unbelievable. It is well known that a female fly may deposit one hundred and twenty to one hundred and fifty eggs at a time and as she has been observed to make four deposits we conclude that a single fly is capable of laying six hundred eggs. But to be real conservative, we will say that a fly lays an average of just one hundred eggs. When these hatch and reach maturity we will assume that half of them are males and half females, which gives us at the end of the first generation just fifty egg-laying females. At this rate there will be produced at the end of the eighth generation, about 1,875,000,000,000 adult flies.

Now if some real ambitious person would undertake the job of killing these flies with a fly-swatter he would find quite a job ahead of him. If he would kill them at the rate of one ev-

ed with chemicals that will exterminate the maggots and at the same time will not injure the manure for fertilizer purposes.

ROASTING EARS IN MID-WINTER.

THAT sounds good, and here is how you may have them, almost as nice and fresh as the day they were picked.

Gather the ears the same day they are to be canned. Remove all husk and silk, then put in boiling water and cook for ten minutes. Next blanch by immersing in cold water for several minutes. Use half gallon fruit jars, fill them as full as possible with the ears of corn, then finish filling them by pouring in cold water. To each half-gallon of the canned roasting ears add two teaspoonfuls of salt. Now put on the rubbers and lids and screw down as tight as possible with the hand, place them in the boiler with enough cold water to cover the lids, and after the water is brought to the boiling point continue to keep it boiling for three hours, then take a cap wrench and screw the lids down perfectly tight.

When the roasting ears are to be served remove from the can, place in a bread pan and set in the oven until warm, then serve with seasoning to suit the taste. This is a thoroughly tried recipe. We have used it in our home for two years.—J. C. B.

MICHIGAN FARM WOMEN WILL KEEP ACCOUNTS.

WHEN the fall crops are harvested in 1921 a larger percentage of Michigan farmers than usual is going to know whether farming is a paying or a losing game. Thanks to a campaign put on this spring by Miss Edna V. Smith, household management specialist of the Michigan Agricultural College, groups of women in twenty-two counties have started a rigid keeping of accounts.

The idea is backed by the state grange and extension department co-operating, with an eye not only to showing farm folks how to figure costs and profits—or losses—but to bring to their attention what a larger proportion of their living they get from the farm. Miss Smith has toured the state, meeting with groups of women in each county and explaining the system of keeping farm accounts. Account books issued by the department are sold at a nominal cost, with cards to tabulate the daily income and outgo from the farm. The women in the various counties added many ideas to those advanced by the college leaders.

GOOD MOLASSES COOKIES.

If a real thin molasses cookie is desired, let the dough stand for several hours, or even over night, before rolling out and cutting. The dough will then have become firm and solid and can be rolled out very thin. Cookies thus made can be kept a long time.—Mrs. W. B. S.



The Cold-pack Method will Preserve Roasting Ears for Next Winter.

ery fifteen seconds, or four a minute, working for twenty-four hours a day he would have taken the lives of 5,760 as a day's work, while at the end of a year his record would be 2,102,400 flies. But this only gets rid of the progeny of one pair of flies. Think of the vast numbers that are present early in the season and if each of these are as prolific as the one just mentioned, it would be an endless job.

The uselessness of swatting flies is then very apparent and should not be depended upon alone. Stop the leak at its source. Kill the flies where they breed. The earlier they are exterminated the fewer there will be to contend with later and every week's delay means just so many more to be taken care of later on. Protect the garbage and other refuse from the flies and give them no chance to come in contact with it. The manure, if it cannot be otherwise disposed of, can be treat-

You Will Like INSTANT POSTUM And It Will Like You

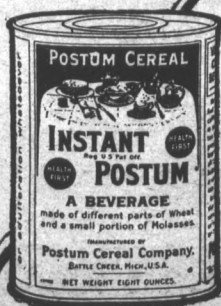
People who say, "I like coffee, but it doesn't like me," will find Instant Postum much more considerate of their health.

This pure cereal drink combines wholesome quality with rich coffee-like flavor.

Instant Postum is made instantly in the cup.

"There's a Reason"
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Strong Men Wanted

Our Weekly Sermon—By N. A. McCune

IN the third chapter of Ephesians, St. Paul has much to say about strong men. He offers a prayer, one of the most wonderful prayers ever uttered, asking that the Christians to whom he is writing may be "strengthened with power." Now the word power as used here has the same meaning as we get from the words dynamo and dynamite. It is to be vital power, mighty power, explosive power, that these people are to have. At least that kind of power is within their reach, and it will be a great pity if they do not get it. Look at the waves of Lake Michigan, as they roll toward the shore. It is done with ease and rush, and yet there is force there, as the swimmer knows. Look at the rain. It comes as easily as you talk, but the weight of a single shower runs into the thousands of tons.

This strength, says the apostle, is to come to us through the Spirit of God. People are afraid of the Spirit. They fear that if they talk much about it they will become too pious. They have known queer people who talked a good deal about the Holy Spirit. But there is nothing to fear. The Spirit is simply God in action. We know more about the operations of the Spirit now than we did a few years ago. We now know that the man who allows the Spirit of God to function through him is going to be a happier man, a more efficient man, a healthier man, and a better man, than the one who does not. It is God working in us.

SOME day go to the town or township library and get the life of William Wilberforce. William Wilberforce was a hunchback. He was as small and distorted and shrivelled a man as ever was elected to the British Parliament. He had a squeaky voice. Yet no man was more listened to, and no man accomplished more in his time than Wilberforce. He was the man who brought about the liberation of all slaves in the British Empire. How did he do it? The only answer I know is, that early in life he met God, and for forty years he tried daily to let God energize through him, and accomplish his own good purposes.

The seat of the Spirit in us is the "inward man." That is, the conscience or the soul. Education often stresses the cultivation of the brain, and athletics the development of the body. Both these are vital. But a man may be educated and be a villain. He may be a giant and be nothing more than a professional weight-lifter. But when the soul is changed, the whole man is affected, mind and body, will and spirit.

AND Paul goes on to state that the object of all this is, that Christ shall "dwell in our hearth through faith." There is a great difference between a hunter and a settler. A hunter stays over night. He builds a fire, sleeps in his tent, and is gone in a day or two. But the settler does not do that way. He comes and stays. He brings his axe and plow, his team, his cow, his chickens and above all, his family. He cuts a hole in the forest and plants some crops. He has come to stay. Now, Christ's home is in the soul. Many will not have him, but that is where He loves to stay. And He wants to stay there, not as a visitor, but as a settler. He comes as friend and as Lord. A primeval unbroken forest is beautiful. But a settled region, with farms and browsing cattle and schoolhouses and children is more beautiful. Just so, the soul ought to be a more beautiful place after Christ has dwelt there than it was when first he entered.

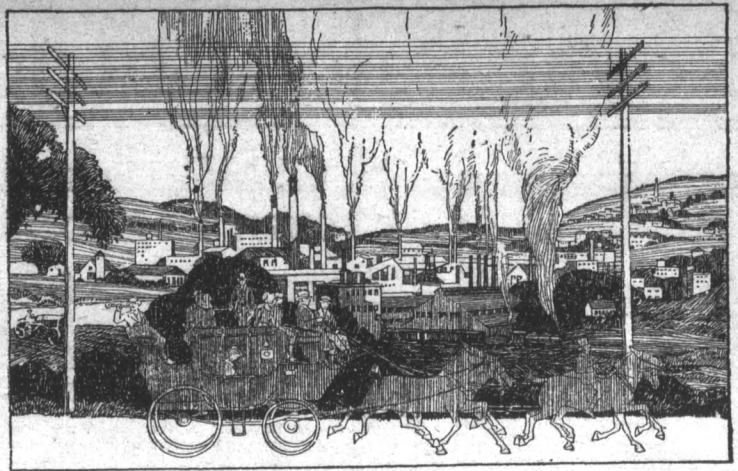
Now in all this we are to be rooted and grounded in love." This is comparing the whole matter with trees and buildings. A tree is well rooted. Otherwise it could not stand. Watch an elm battling with a winter storm. The roots are on duty. Like sailors called to the pumps, the roots are determined they shall not be vanquished. They seem to say to the wind, "Come on." The limbs writhe and leap beneath the force of the wind, but the tree stands. It is deeply rooted. Turn to the building. Once I passed for many weeks a corner where an office building was to be built. I thought they would never stop digging. For days the steam shovel dug and dug. Then came quicksand and they must go deeper. The excavation looked more like the mouth of a mine than the foundation of a building. But at last they began to build. Basement, one story, two, four, six, ten, twelve, sixteen stories. The building did not lean. One side did not crack. It stood as straight and proud as the heart of its architect. One day it was opened to the public and today thousands press into its elevators every day. It went down deep so that it might go up high. "Rooted and grounded." St. Paul says we are to be rooted and grounded in love.

NOW everyone knows what love is. It is not necessary to explain that. The little boy who puts his arms around mother's neck knows what it is. We all know what it is. And that is the secret of Christianity—love. Mark you, the Bible is accurate. There are two different words for love in the New Testament. One means to love, as husband or wife, or two very close friends. The other means to have utmost good will for people, to want to do them good. That is the word used here. We are to be rooted and grounded in abundant, overflowing goodwill toward people.

The passage closes with the hope that we shall be strong enough to understand as the saints do, about the will of God. Most folk do not count the saints as very strong. Saints are supposed to be weak, watery beings. But Paul figures that one must be a soldier with a real stride if he is to keep step with the saints. That will be a new idea to some people. But, look at one or two of them. Elijah is a saint, and he battles single-handed with four hundred fanatical heathen priests. Would you call him a strong man? Jeremiah tells his nation it is going to hell, and going fast. He suffers imprisonment and shame. Shall we label him saint and strong man? I stood one day where Savonarola was burned to death—and I took off my hat. Savonarola was also saint and strong man. O, there is an army of them. They are big fellows, mighty men. They have God in their souls. Without them the world would putrefy, or dry up with the dry rot of self-sufficiency. A saint is a strong man, and that is the company we are to travel in. We, too, are to be strong. There is no excuse for weakness.

One day I was in a village, and I passed the bank. On the window it said the capital was half a million. I could not believe that a small bank like that would have such a capital. Then I read below that this bank was a branch of a large bank in the city. That is the way with us all. We may be branches of the great Vine, and so draw on the great capital that is there stored up.

Milk is so constituted as to correct the deficiencies of other foods when used in combination with them.



"... places far apart are brought together, to the present convenience and advantage of the Public and to the certain destruction, in time, of a host of petty jealousies, blindnesses and prejudices, by which the Public alone have always been the sufferers." From Charles Dickens' Preface to *Pickwick Papers*.

The Advance of Understanding

Even romance of sixty brief years ago could not imagine the great advance heralded by the passing of the stage coach. The railway and telegraph were coming into their own; but the telephone had not been so much as dreamed about.

Yet the wise men of that day saw the imperative need. They saw the value of every step which brought people into closer communication with each other. They knew this to be the one way to increase

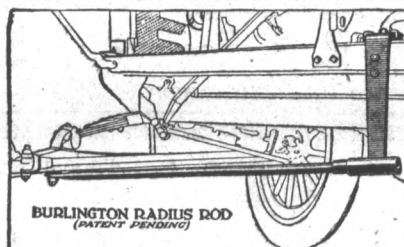
understanding; and to eliminate the "host of petty jealousies, blindnesses and prejudices, by which the Public alone have always been the sufferers."

Then came the telephone. And with its coming time and distance are swept away and a hundred million people are made neighbors.

Places far apart are brought together by 34,000,000 conversations a day over the Bell System.



"BELL SYSTEM"
AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES
One Policy, One System, Universal Service, and all directed toward Better Service



NO MORE Broken Crank Cases or Engine Arms

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It is well established and supported by conservative financiers, that there is no class of Investment Securities that equal State, County, and City Bonds (Termed Municipals) for absolute safety, as this whole taxable property of the issuing organization is pledged for the payment of both principal and interest.

We specialize in MUNICIPAL BONDS of highest class, that yield to the investor from 5% to 6% annual interest, that is Exempt from all Government Income taxes: more yield and safer than Savings Banks. Denominations from \$500 up. Full descriptions sent free.

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References: Any bank or business firm in Toledo

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**S. C. White and
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\$9 per 100 Postpaid**

Place your order now for some of these high-grade chicks from pure-bred stock that has been bred to lay for the past 10 years. Just the kind of stock you need on your farm to bring you a good profit. Our many years of hatching experience enable us to give you chicks that are started right and will grow right. Any size orders accepted. Safe arrival guaranteed. Order direct to save time, or send for catalog.

Royal Hatchery, R. 2, Zeeland, Mich.

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CHICKS

20,000 large, strong, well hatched chicks every Tuesday hatched from eggs laid by selected hens on free range insuring healthy, vigorous chicks that will live and grow into money for you.



Barron S. C. White Leghorn heavy weight and heavy layers American S. C. White Leghorns heavy laying strains S. C. Brown Leghorn the most beautiful Leghorn and a good layer. S. C. Anconas great layers.

PRICES FOR JUNE AND JULY	Per 25	Per 50	Per 100	Per 500
S. C. White Leghorns				
English W. Leghorns	\$2.50	\$4.50	\$8.50	\$40
S. C. Brown Leghorns				
S. C. Anconas				
Broiler Chicks	\$2.00	\$3.75	\$7.00	

We Ship By Parcels Post and Pay the Postage to Your Door.

We guarantee the chicks to reach you in good condition. Catalogue free.

WYNGARDEN HATCHERY, Box M, Zeeland, Mich.

Day Old Chicks \$9 per 100

FROM

Standard Bred Brown Leghorns and Standard Bred White Leghorns

The stock has been bred to lay for the past twelve years, and are now good laying strains. We also have English type White Leghorns which are a little heavier, and have very large combs and lay a large white egg. Those looking for the English type and a heavy laying strain, make no mistake when ordering from us. 100% safe arrival guaranteed by parcel post. Write for our catalog.

Order Direct from Ad. and Save Time.

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H. P. Wiersma, Owner and Manager

Baby Chicks Pure Bred 800,000 in 1921

To your door Prepaid by us. Guaranteed live delivery. All our stock is of the Standard and free range and of heavy egg production at the price to meet times. And they are all No. 1 only



S. C. White Leg. } 10c each
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White Rocks }
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Anconas } 18c each

Give us a trial order and you will always come back for more of our chicks get our big offer on chicks and brooders. Order direct from this ad and save delay. Circular Free.

WOLF HATCHING & BREEDING CO., Dept. M, Gibsonburg, Ohio.

Big Special Stock Sale

Yearling Hens and Male Birds. Pullets and Cockerels from 6 Weeks Old on Up.

We have several thousand to select from. Can furnish stock of Utility, Exhibition and Laying Quality, at reasonable prices. When you write us, plainly state just what you want. Now if you want stock that is bred for high egg production and quality don't fail to grasp this opportunity and don't wait too long to order. We can more than please you for the money, guarantee you satisfaction.

Huber's Reliable Hatchery, East High St., Fostoria, Ohio

POULTRY

Barred Rocks Hatching eggs from Parks 200-egg strain. Rich in the blood of Parks best pedigreed pens. \$2 per 15, \$6 per 50, \$12 per 100. Prepaid by mail safe arrival guaranteed send cash with order special rates on 500 or more. R. G. KIRBY, Route 1, East Lansing, Mich.

CHICKS English Strain White Leghorns the heavy laying strain at only \$15 per 100; prepaid by mail safe arrival guaranteed send cash with order special rates on 500 or more. JAMESTOWN HATCHERY, Jamestown, Mich.

Baby Chicks Good big healthy chicks of show room quality at utility prices. Catalogue free. Sycamore Hatchery, Sycamore, Ohio

Barred Rock and Ancona Chicks \$12 per 100 for pure bred, safe arrival. H. H. Pierce, Jerome, Mich.

CHICKS English Strain White Leghorn. Bred to lay Brown Leghorn and Anconas. Bargain prices for our quality stock kept on free range. Order now for early deliveries. Hillside Grove Hatchery Farm, R. 1, Holland, Mich.

Additional Poultry Ads. on Page 773

Our Boys' and Girls' Page

Success that is Success

Things Worth Working For by Boys and Girls

By Edgar L. Vincent

THE world has little use for the boy or girl who does not, in his heart of hearts, want to win out in the things that count for most. A shoe string is a pretty poor sort of a thing to depend upon, but it is a steel cable compared to a young man or woman who has no big dream of success in some line or other.

Ask a hundred men of the present day what, in their opinion, is the greatest need of the times, and ninety-nine of them will tell you, "We need men—good men, and women, women that can and will do everything they undertake, right." The one-hundredth man no doubt would say, "We need men with lots of money. Men of means can do everything." With these men, "money makes the mare go." But while the mare is going, the money is usually going, too, and pretty fast; for the man who depends solely on his money to win him success will not win any success that is worth winning.

What, then, is success that is success? Shall we leave the money entirely out of the question? Is it not a help in life? It surely is. The man who would say otherwise would not be speaking the truth. We need money. Primarily, our efforts in this world are directed toward the acquirement of money or something that can be turned into money. As the social world goes, money is a power. But it is not the highest good in life. Back of the money must be the determination to use what we get wisely and for the best good of ourselves, of those who are dear to us and of mankind.

Now, it is success to become a good farmer. A boy told me the other day that many thought he was a fool for quitting school and going to work on a farm. "But," he added, "I am learning every day. I will get to be as good an all-round farmer right here on the farm, so that I know as much about how to do farm work as I would if I went to school. I can't go to an agricultural school now, but I can learn as I earn."

That was a fine declaration of principles and it will, if put into practice, bring success as a farmer.

It is success to be an interested, up-to-date member of a good cattle club, or a sheep club or a poultry club or any kind of a club that is working for the betterment of any of the farm creatures. A boy or girl may put the very best there is in him or her into his work in any of these lines. All that is done to develop the finer qualities of the cows or the hogs or the sheep has a tremendous value in working out for the young person thus engaged a character worth more than all the money that could be stacked up under the blue dome of heaven. Character counts, for character teaches the right use of the material things we gain.

So this is Uncle Ed's thought. Remember it, if everything else is forgotten. Success is manhood and womanhood—genuine manhood, genuine womanhood. All the rest we get out of the farm, or anywhere else, is contributory to success or detrimental to it, according as we put it into service in the building of real manhood.

Now, there are a few stepping stones to success such as we have been talking about. In the first place, the right kind of thinking. You never can think low and reach up high. Every right thought, every kindly action, no matter whether expressed toward man,

cow, calf, lamb or hen, lifts you a bit higher toward your goal.

And then, good books and papers have their influence—and it is a mighty influence, too—in working out true success. The book or the paper that makes one think things and do them is a big boost up the hill of conquest. Show me the books and the papers a boy or a girl reads and I will forecast his future for him.

Best of all, keep your heart true and honest toward Father and Mother. Love them. Think with them in all right ways. Be to them a support and a tower of strength. They are worthy of it and you cannot afford to leave any spot or place unguarded in your love for them and the old home. Love home, love those in it, love the community, love the nation. Defend them all with might and main! Do this and you are bound to succeed!

OTTAWA COUNTY CLUB ACHIEVEMENT DAY.

OTTAWA County Achievement Day was held Friday, May 27, 1921, at McNitt School, Conklin, Michigan. It was a real community picnic, held under the direction of the teacher, Miss Violet Gilbert.

The forenoon was fun for young and old. Outdoor sports were as follows: Running races, ball throws, pitching quoits, standing broad jump, running broad jump, pole vaulting and indoor baseball game. Ribbons were awarded to winners.

During this time the judging was being done inside. The exhibits were extraordinary. The places in garment-making were as follows: Vivian Borgman, first; Sylvia Nostrant, second; Rosa Hendershot, third.

Hot lunch: Sylvia Nostrant, first; Rosa Hendershot, second; Nellie Kaufman, third.

Handicraft: Lyle McNitt, first; Fred Seelman, second.

Ottawa county champions to have a free trip to Lansing as guests at M. A. C. are: Sylvia Nostrant and Lyle McNitt.

At noon a bounteous dinner was served. Tables were set and plates laid for one hundred and thirty. Ice cream and cake was served as dessert.

At 1:30 p. m. the afternoon program was given. A very pretty flower and wand drill by twenty boys and girls. Reading of the best stories of hot lunch, handicraft and garment-making respectively were by Sylvia Nostrant, Lyle McNitt and Verlan Borgman.

"A Mother's Viewpoint of Hot Lunch Results," by Mrs. Gertrude McNitt. A play by the Boys' and Girls' Club members, "The Rejuvenation of Our Farm." The judges, Mrs. T. F. Rogers, of Ravenna, and Miss E. W. Palson, of Holton, appointed the places to the club winners.

Rev. W. L. Mann, of Ravenna, gave a fine address of our efforts "To Be a Good Loser." The program ended with the renewing of old acquaintances.

Fame and fortune await the scientist who discovers the secret of the familiar firefly or lightning bug. No one has been able to tell how the little insect produces the flashes of light we see twinkling about us on dark nights. Careful scientific tests have proven, however, that this light is produced with about one four hundredths part of the energy which is expended in the flame of a candle.

The Breeding Cockerels

By G. K. Riley

COCKERELS that are saved for breeding require fully as much attention as pullets as these males must also make a steady, vigorous growth if they are to be the kind of birds suitable for breeding. Cockerels should be culled frequently after they have reached the broiler age and this culling should be continued throughout the season until the birds remaining are all good enough to head breeding pens either on the home farm or in the hands of other poultrymen.

It is best not to isolate the cockerels entirely from mature hens or old males. A large flock of cockerels penned together will be apt to fight and this may cause serious blemishes that will injure the sale of the birds for breeders. They can be allowed to run with a few mature hens and one or more cock birds. The old stock will keep down the fighting instincts of the cockerels and they will be more subdued in disposition and more satisfactory as breeders when they are placed with hens or pullets in the spring. However, a large flock of cockerels should not be permitted to range with pullets which are being developed rapidly as egg producers. These young males are rough around the feed hoppers and it is bad for the pullets.

Cockerels need a balanced ration. They must have the kind of food which produces bone and muscle as well as fat. The poultryman wishes his cockerels to attain size in order that they may transmit that characteristic to their offspring. The large quantity of feathers which the bird grows need the materials in a balanced ration so that the feathering process will proceed rapidly. Corn should not be fed exclusively to the breeding cockerel, but it should be combined with boiled oats, sour milk and wheat screenings when they can be obtained. A dry mash containing bran in large quantities will be useful in promoting rapid growth. Ground bone and beef scrap are of special value and very necessary when there is not an abundance of sour milk. Green food is important if the birds are fenced on a range deficient in all kinds of green food and it must be supplied. The ration that is good for the growing pullets is good for the cockerels and just because the pullets are to produce eggs is no reason why they should receive heavy feeding and the cockerels should get along on short rations. There is little danger in overfeeding growing cockerels if they are given a variety of food. There is a danger of underfeeding them and finding a collection of partially stunted birds to go into the breeding pens next spring.

CONTROLLING BOWEL TROUBLE

SOMETIME ago I saw an inquiry in the Michigan Farmer for a cure for blackhead in turkeys. Your writer says there is no cure. I am so successful with my treatment that I call it a cure.

When I find a turkey refusing to eat, with bowels loose, I shut him up, not in too close quarters, and give him water with carbolic acid. One pint of water and three drops of carbolic acid will do. No other water should be given. If he does not drink it, put three or four teaspoonfuls down him, two or three times a day. Feed no corn, but keep a little moistened bread, a little wheat and some gravel before him. Apple, cabbage, grass he will eat, but as his appetite comes back to him do not feed too much.

When the droppings begin to look natural let him have what he wants. From four to seven days he should begin to recover rapidly.

If he is rather weak when turned out, watch that the other turkeys do not get him down and trample him to death. I have not tried this treatment on young turkeys as I drive my turkeys to the fields when they are two weeks old and they seldom come to the house before September, or sometimes in November.

This treatment is good for chickens with cholera or any bowel trouble.

MRS. M. N. BRYANT.

CAN THE ROOSTERS.

THIS is the time of the year to swat the rooster again. That is, swat him if you are interested in having the eggs from your flock remain fresh.

What shall be done with him or them? Those roosters that are to be used as breeders later should be placed in a separate pen, or even in a well ventilated, clean coop. The cull roosters may be killed and canned according to directions for canning furnished by the extension service of the Ohio State University. This places a supply of chicken in the housewife's hands for that unexpected guest. It also stops the expense of feeding to a later date for killing. Another method of disposing of the cull rooster is selling them to your local dealer.

CHICKS WITH SORE EYES.

I have about ninety R. I. R. incubator chicks two weeks old. They have killed several chicks by pecking each other's eyes. At one time there were twenty-five afflicted. Apparently the lower lid gets a scale on it which the chicks pick off, leaving an exposed sore and in a few minutes they have nearly blinded the chick. Have noticed two that had a watery discharge from the beak. Otherwise the chicks seem normal. If not too badly hurt, isolation and peroxide have proved effective for the wounded chicks. But why should the chicks behave so and can you suggest a remedy? R. B. C.

Chicks sometimes have sore eyes because of dusty litter in the brooder house. Coal-burning brooder stoves make the house very dry and the scratching of the birds will keep the air full of dust. The watery discharge may be from slight colds caused by crowding and overheating, followed by slight chilling. Chicks may peck at each other's eyes for want of other things to attract their attention. When they have plenty of range outside they can keep busy running and scratching and seldom pay as much attention to each other as when closely confined in the brooder house. The peroxide wash you have used may control the trouble and it will not appear as the chicks become a little older and can range where green food and worms are abundant.—R. G. K.

ENCOURAGING THE "SON TO SHINE."

(Continued from first page).

are trips to Europe, free educational advantages and other worthwhile rewards. The parent of any boy or girl who wins at one of these national shows will certainly have an unbounded pride in the youth.

In view of the remarkable success attending the work among the boys and girls of the country, and the influence their work has had upon the older people, it truly seems that the old adage which has been repeated to the rising generation for centuries, and which reads, "Children should be seen and not heard," might well be changed to, "Parents, listen to what the children have to say." Anyhow, it would seem important that every parent do his or her utmost to encourage the "Son to Shine."



FertilEarth

Agricultural Gypsum
(LAND PLASTER)
"Makes Crops Grow"

Healthy plants repel disease, require less water and survive parasites. Sulphur, calcium and nitrogen are three of the vital plant foods that keep crops healthy and assure larger yields. **FertilEarth** supplies these three foods to plants in an available form—sulphur and calcium directly and nitrogen indirectly. In thus keeping plants healthy it enables them to resist disease and parasites. **FertilEarth** can increase crops 500% and make worn-out farms fruitful. Try it on a small plot.

Write for booklet. **FertilEarth** is sold everywhere.

Helps Plants Resist Disease

GRAND RAPIDS PLASTER COMPANY

Established in 1856 — Manufacturers of

FertilEarth Agricultural Gypsum "Makes Crops Grow"	Climax Wood Mortar "For Plastering Fine Homes"	Hercules Wall Plaster "For Plastering Larger Buildings"
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Chicks Chicks

Great price cut for June and July deliveries to lower than pre-war prices. Better chicks at a real bargain price. **LOOK**

Pure S. C. W. Leghorns	\$9.00 a 100, \$4.50 for 50
Pure Barron Eng. Leg.	11.00 a 100, 5.50 for 50
Pure S. C. Anconas	11.00 a 100, 5.50 for 50
Pure B. P. Rocks	14.00 a 100, 7.00 for 50

Hatch every Tuesday, order direct. Prompt shipment on all varieties by Parcel Post mail. Full count strong lively chicks on arrival. For quick service and an entirely satisfactory deal send us your order. 13 years reliable dealings. Fine instructive catalog and price list free.

W. Van Appledorn
R. 7, Holland, Mich.

Winter Laying Pullets

now eight weeks old. Anconas and White Leghorns, Brown Leghorns, Buff Leghorns, Rocks, R. I. Reds, Wyandottes, Black Minorcas. Dollar and up as they grow older.

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DAY-OLD CHICKS

\$16.00 per 100 and up. Hatching eggs, \$2.00 to \$15.00 per setting and \$9.00 to \$15.00 per 100, from 25 varieties of pure bred, farm raised fowls: Chickens, Geese, Ducks, Turkeys and Guinea fowls. Price list and circular free. Plenty of nice breeding stock. Book now for early spring delivery. **WILMINGTON HATCHERY & POULTRY CO.** Wilmington, Ohio.

Fowler's Buff Rocks Egg prices cut one-half for balance of season.
R. B. FOWLER, Hartford, Mich.

S. C. WHITE LEGHORN CHICKS
Send for Catalog SNOWLAKE POULTRY FARM, Route 1, Grand Rapids, Michigan

Barred Rocks egg contest winners, eggs from strain with records to 250 a year. \$2.00 per setting prepaid by P. P. Circular free.
FRED ASTLING, Constantine, Mich.

John's Big Beautiful Barred Rocks are hen hatched, develop quick, good layers, fine show quality, 30 eggs \$3.50, 50 \$5. Postage paid, Photos, circulars.
JOHN NORTON, Clare, Mich.

Barred Rocks 8 to 12 week pullets, cockerels, hens and cock birds. Leading pen at M. A. C. for December averaging 22 eggs each. 1 pullet laid 27 eggs in both Dec. and January. 1 pullet laid 80 eggs in 91 days, winners at largest shows in state. Write for price list.
G. Caball, R. 4, Hudsonville, Mich.

LOOK. BABY CHICKS

at 8 cents and up. Announcing our summer prices for 1921.

W. Leg.	10 cents	Buff Leg.	11 cents
Br. Leg.	11 cents	Anconas	12 cents
Barred Rocks	13 1/2 cents	Reds	13 1/2 cents
Buff Rocks	13 1/2 cents	W. Wyandottes	15 cents
Broilers	8 cents		

Deduct 5% for orders of 500 or more, 10% for orders of 1000 or more. We prepay parcel post charges and guarantee live delivery. Send for free catalogue and earliest delivery date.
Ohls Poultry Yards & Hatchery, Marion, Ohio

BABY CHICKS of Superior Quality

Hot from the Hatchery, right to your door safely, by prepaid parcel post. BIG Strong, fluffy fellows hatched from eggs of selected flocks, and under our own supervision. **ROCKS, LEGHORNS, ANCONAS, REDS and MINORCAS.** Chicks that live and grow into money. Bred for EGG PRODUCTION and the SHOW ROOM. Save money by sending for our catalogue NOW. **THE SUPERIOR CHICK HATCHERY,** Lock Box 197, Prairie Depot, Ohio.

Extra Good Chicks

Plan now on more eggs next winter. June and July chicks lay when eggs are high. Eng. White Leghorns, \$11-100; Brown Leghorns, \$11-100; Anconas, \$12-100. Postpaid anywhere. Catalog free.

Monarch Poultry Farms and Hatchery,
Zeeland, Mich.

LOOK [75,000] CHICKS
Our Hi-Grade profit paying Bred-to-Lay, M. A. C. tested and exhibition chicks, at reasonable prices. Hatching eggs, 8 varieties, Circular FREE.
Lawrence Poultry Farm, R. 7, Grand Rapids, Mich.

Chicks, Pullets and cockerels. Thorough-bred Barron Leghorns \$9.00; Rocks \$11.00; S. C. R. I. Reds \$13.00 per hundred. Eight week old pullets and cockerels White Leghorns, Rocks and Reds at bargain prices. Write me your wants. Catalogue. **Brummer's Poultry Farm, Holland, Mich.**

Barron S. C. W. Leghorn 8 and 10 week old pullets at special low prices. A pleased customer or no sale. **Hudsonville S. C. W. Leghorn Ranch, Hudsonville, Mich.**

R. C. Br. Leghorn Eggs, \$1.50 for 15. Pekin duck, \$1.50 for 3. W. Chinese Goose eggs, 40c each. **MRS. CLAUDIA BETTS,** Hillsdale, Mich.

BEST Breeds, Chickens, Ducks, Geese, Turkeys, Guinea Hares, Dogs, Stock and eggs. Write your wants. Catalog free. **H. A. Souder, Box 94, Sellersville, Pa.**

Chicks, for May and later delivery. Leghorns 13 1/2 S. C. Reds 15 dollars hun. Circular **FREEPORT HATCHERY, Box 12, Freeport, Mich.**

Baby Chicks \$10 a 100 and up.

Postage PAID. 95% live arrival guaranteed. FREE feed with each order. 40 breeds chicks, 4 breeds ducklings. Select and Exhibition grades. A hatch every week all year. Catalogue free. Stamps appreciated.
NABOB HATCHERIES, Gambier, Ohio

100,000 CHIX 11c UP.

Best selected utility trapnested exhibition stock ever produced. Always 2,000 chix on hand 5 to 15 days old. 18 varieties. Hatching eggs, Hens, ducks. Early bookings, avoids disappointment. Catalog.
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PULLETS

4,500 White and Brown Leghorn and Ancona 8 weeks old pullets; also 10,000 yearling Leghorn and Ancona hens. Send for prices and description of stock.

SIATE FARMS ASSOCIATION,
Desk 1, Kalamazoo, Mich.

USEFUL ANCONAS June and July chicks lay before cold weather. Eggs half price \$6.50 per 100, \$3.50 per fifty. Hogan tested, beauty and utility combined. Specialty breeder S. C. Mottled Anconas. Send for booklet. (Useful facts about Useful Anconas). It is free. **College View Farm, R. 3, Hillsdale, Mich.**

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Both Combs. Michigan's Greatest Color and Egg Strain. We are offering some unusual bargains in Chicks and Hatching eggs for June and early July. Write for Free Catalog.
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Baby Chix—12,000 Standard Quality every Tues. at greatly reduced prices; Mottled Anconas, English and American White Leghorns, Brown Leghorns and Barred Rocks; all single comb. Parcel Post paid, safe arrival guar. **Knoll's Hatchery, R. 3, Holland, Mich.**

HEASLEY S. C. Buff Leghorns. eight-week-old pullets and cockerels and breeding hens at bargain prices. Bred from officially certified egg bred winners, original Dr. Heasley flock. Chicks at special prices. **Henry DeFree, R. 8, Box 137, Holland, Michigan**

English White Leghorns chicks 10c, pullets 75c and up. Our choice breeders reasonable. Discount on large orders. **Robt. Christopher, R. 4, Holland, Mich.**

RHODE ISLAND WHITES

win over all breeds at the egg laying contest. 30 eggs \$5; 50 \$8; 100 \$15 order from this ad. Some chicks.
H. H. JUMP, R. 5, Jackson, Mich.

S. C. Black Minorcas Eggs from No 1 pen will be \$1.50 per setting of 15, for the balance of the season.
R. W. Mills, Saline, Mich.

PULLETS: Extra selected, high grade Barred Rock and White Leghorn pullets. 1 lb. and over at right prices. **Model Poultry Farm, R. 4, Zeeland, Mich.**

Quality Chicks Black Minorca, Light Brahma, 25c each. Barred Rock, R. I. Red, 15c each. **Tyrone Poultry Farm, Fenton, Mich.**

White and Brown Leghorn Chicks from selected flocks 10c each for delivery June 1st and every Wed. thereafter. Other breeds 12 cts. Order from this ad.
DERR & ADAMS, Litchfield, Mich.

White Wyandottes: 207 egg average. Hatching eggs, \$2.00 per 15. Baby chicks 28 cents each. Cockerels, hens and pullets.
FRANK DeLONG, R. 3, Three Rivers, Mich.

White Wyando'te and Barred Rock eggs, half price balance of season. **HOWARD GRANT, Marshall, Mich.**

Pullets S. C. W. Leghorns for June, July and August 8 to 10 weeks old \$1 each. **HENRY WATERWAY, R. 4, Holland, Mich.**

Additional Poultry Ads. on Page 775

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THE HOME OF
Imp. Edgar of Dalmeny
Probably
**The World's Greatest
Breeding Bull**

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

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

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

Send for Illustrated Catalogue.

WILDWOOD FARMS
ORION, MICHIGAN

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

Woodcote Angus

Trojan-Erica and Blackbirds (Blackcaps)

Imp. Elcho of Harviestoun.

Imp. Edgardo of Dalmeny

Write for 1921 Sale List.

Woodcote Stock Farm, Ionia, Mich.

CLOVERLY ANGUS

Cows and Heifers Bred to

Blackcap Brandon of Woodcote 2nd

For Sale

GEO. HATHAWAY & SON, Ovid, Mich.

REGISTERED Aberdeen-Angus. Ten heifers, six

bulls from eight to fourteen months. Best of

breeding, the growthy kind that make good. Reason-

able. Inquire F. J. WILBER, Olio, Mich.

Reg. Aberdeen Angus

bulls and heifers of the very best of breeding, from

12 to 15 months of age. For next 30 days will price

bulls at \$100.00. Real bargains. Inspection invited.

RUSSELL BROS., Merrill, Mich.

REGISTERED Guernseys. Bull calf ready for light

service—out of our old Foundation Cow—Primrose

Bessie—and one of the best May Rose Bulls in the

state. \$100 buys him. Never had a reactor—no abortion.

Herd Fed. Tested. J. M. Williams, No. Adams, Mich.

GUERNSEYS—REGISTERED BULL CALVES

Containing blood of world champions.

HICKS' GUERNSEY FARM, Saginaw, W.S. Mich.

Guernsey Bulls of May Rose Breeding

Their dams have records

420 to 650 lbs. fat also a few cows and heifers are

offered. H. W. Wigman, Lansing, Mich.

For Sale 5 young imported Reg. Guernsey cows

for \$250 each. Also May Rose herd

bull; his 5 nearest dams average 725 lbs. fat. \$300

E. A. BLACK, Howard City, Mich.

Guernsey bulls, grandsons of Carrie of Hillhurst

3rd A. A. Class Leader, and out of cows on test.

Also a 2 yr. old out of a 3 1/2 yr. old with a 600 lb. record.

Priced to sell. Federal tested. Satisfaction guaran-

teed. G. W. and H. G. RAY, Albion, Mich.

Reg. Guernsey bulls for sale cheap. State T.B. test-

Red and from good producing and A. R. cows. Age 1

to 12 mo. O. E. Lambert & Sons, Linwood, Mich.

Guernsey prices. Tuberculin tested. Send for

sale list to day. G. A. Wigent, Watervliet, Mich.

Guernsey Bull grandson of Langwater King of May

3 yrs. old, quiet and sure, price right.

Apply The Jennings Farms, Bailey, Mich.

WinnWood Herd

Registered

Holstein-Friesian Cattle

We breed them to sell. If you

are looking for seed stock, we

have it.

John H. Winn, [Inc.]

Rochester, Mich.

USE PURE-BRED SIRES!

Estimates furnished by the Dairy Division of the

United States Department of Agriculture show

that the dairy cows of the country average only

4,500 lbs. of milk per year.

A good Holstein bull will increase the production

of the ordinary herd 0 per cent in the first gener-

ation.

Let us help you find a good one to use on your

herd. You cannot make a better investment.

The Michigan Holstein-Friesian

Association

H. W. NORTON, Jr., Field Secretary,

Old State Block, Lansing, Michigan

Holstein Friesian heifer and bull calves, purebred

registered and high-grade. Price \$20 up.

Splendid individuals and breeding. Write as your re-

quirements. Browncroft Farms, McGraw, N. Y.

Blythefield Farms

Settle your Herd Sire problem now by getting a
thirty pound record pure bred Holstein bull calf
from Blythefield Farms. Address
JOSEPH H. BREWER, Grand Rapids, Mich.

Reg. Holsteins for sale at all times either

sex. Bulls or heifers, prices

reasonable. Write or come and see them.

HENRY S. ROHLFS, R. 1, Akron, Mich.

Here Is a Good One

Born June 2 1920 by Maplecrest De Kol Hengerveld,
a sire having three sisters each having records of over
1200 pounds of butter in a year. Two of them former
world champions, calf's dam by an own brother to
Highland Hartog De Kol yearly record of 1247.95
pounds. This combination of breeding will give re-

sults. HILLCREST FARM, Kalamazoo, Mich.

"Top Notch" Holsteins

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

Our herd is rich in the blood of Colantha 4th Jo-
hanna, the only cow that ever held all world's records
in every division from one day to one year at the same
time. She produced 651.70 lbs. milk in 7 days. We are
offering for sale a bull, whose dam exceeds this record
by over 7 1/2 lbs. in 7 days.

His dam's records are:

Milk 7 Days 1001 lbs.

Butter 7 Days 659.3 lbs.

His name is

KING VALE CORNUCOPIA WAYNE, No. 312599

Born February 6, 1920

His dam and sire's two nearest dams average

Butter 7 Days 33.02 lbs.

Milk 7 Days 607.3 lbs.

Handsomely marked about one third white.

\$250.00 f. o. b. Howell.

MCPHERSON FARMS CO., Howell, Mich.

All herds under U. S. Supervision.

A Proven Blood Line

KING SEGIS transmitted to his sons the power to
transmit to their daughters the greatest of produc-

tion over long periods. It is his offspring that has

recently made the greatest yearly production ever

dreamed of 37,381.4 pounds of milk in a year.

We have for sale at moderate prices.

Beautiful individuals of show type KING SEGIS

BULLS.

GRAND RIVER STOCK FARM,

315 N. East Ave., Jackson, Mich. C. J. Spencer, Owner,

Under State and Federal Supervision

A Good Note accepted in payment of finely bred reg-

istered Holstein bull calves. Quality

of the best, and at prices within reach of all. Write.

GEO. D. CLARKE, Vassar, Mich.

The Traverse Herd

We have what you want in BULL CALVES, the large,

fine growthy type, guaranteed right in every way.

They are from high producing A. R. O. ancestors

Dam's records up to 30 lbs. Write for pedigrees and

quotations, stating about age desired.

TRAVERSE CITY STATE HOSPITAL

Traverse City, Mich.

Cluny Stock Farm

Offers

Cluny Konigen Colantha Silver 326205

Born May 29, 1920

A white bull with few black spots.

His sire a 30 lb. son of King Segis Pontiac Konigen.

Sire's 7 nearest dams average 32.301 lbs. butter 624.1

lbs. milk in 7 days.

His dam has a Jr. 3 year old record of 17,683 lbs.

butter from 418.7 lb. milk and is a granddaughter of Colan-

tha Johanna Lad.

2nd dam—a 21 lb. cow that our barn records show milk-

over 145,000 lbs. in 14 milking periods producing 15

calves.

Pedigree on application.

Price \$250.00. Federal Accredited Herd.

R. Bruce McPherson, Howell, Mich.

Reg. Holstein Bull ready for heavy service, choice

individual and extra well bred. Dam has

record of 21 lbs. butter and 534 lbs. milk in 7 days.

Priced for immediate sale. Send for photo and ped-

igree. MERLE H. GREEN, Ashley, Mich.

Reg. Holsteins and Berkshires, most any age, either

sex, priced according to other commodities. Write

or come. B. B. REAVEY, Akron, Mich.

HEREFORDS

Cows with calves at side, open or bred

heifers of popular breeding for sale. Also

bulls not related.

Allen Bros. Paw Paw, Mich.

616 So. Westnadge Ave.,

Kalamazoo, Michigan

Thumb Hereford Breeders Association

now offering some excellent young males and fe-

males of choice breeding. Can furnish one or a

carload. Priced right. Your inspection solicited.

Jas. R. Campbell, Secretary, Bad Axe, Mich.

FOR SALE: Full-blooded high-class Hol-

stein Bull.

Black & White Farm, Fremont, Mich.

Registered Jersey bulls, some ready for

Oxford's Champion Fox 168651, out of Oxford Daisy's

Princess. Register of Merit record 8311 lbs. milk; 468

lbs. butter with first calf, milked 50 lbs. per day with

second calf. Sister to Sadie's Crown Princess 16578 lbs.

milk, 1651 lbs. butter in one year. The dams of these

bulls are high producers, many of them are prize

winners. Prices very low, quality considered.

O. S. BASSETT, Kalamazoo, Mich.

BUTTER BRED JERSEY BULLS

CRYSTAL SPRING STOCK FARM,

Silver Creek, Allegan County, Michigan.

The Wildwood Farm

Jersey Cattle. Majesty strain. Herd on State accred-

ited list. R. of M. testing done. Bulls for

sale. ALVIN BALDEN, Phone 143-5, Capac, Mich.

Thorobred Jersey Bull Calves Hood Farm

breeding. State

and Federal accredited list, \$25.00 each. Also one

yearling bull ready for service. Pedigrees on request.

L. W. JAYNE & BEN BRAWT, Fenton, Mich.

JERSEY BULLS Ready for Service.

Raleigh-Oxford

and—Majesty breeding. Meadowland Farm, Water-

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Lillie Farmstead Jerseys

Bull calves from

R. of M. cows,

Coopersville, Mich.

Registered Jersey Bulls ready for service from

R. of M. dams. T. B. tested. Will give time.

SMITH & PARKER, R. 4, Howell, Mich.

Jersey Bulls For Sale ready for service from R. of

M. dams. T. B. tested. Will give time.

SMITH & PARKER, R. 4, Howell, Mich.

Milking Shorthorns Young bulls with excellent

pedigrees from best mil-

kers. O. M. YORK, Millington, Mich.

Milking Shorthorns, bulls and heifers 5 mo. to 1

year old for sale at reduced prices to make room

for younger stock. E. H. KURTZ, Mason, Mich.

BIDWELL SHORTHORNS

BUY A BULL

that will put weight on your dairy calves—the dif-

ference will soon pay for the bull. Now selling good

Scotch and Scotch-topped yearlings, reasonably priced.

We guarantee every animal to be a breeder. Federal

Test. One hour from Toledo, Ohio, N. Y. C. R. R.

BIDWELL STOCK FARM,

Box D, Tecumseh, Michigan

Shorthorns. Bull calves for sale from the

best milking blood obtainable.

ROSEMARY FARMS, Williamston, Mich.

Richland Shorthorns

We offer a few choice Scotch heifers with calves

at foot. This is good foundation stock and the

calves are all from top sires. Prices reasonable.

Write your wants and see the cattle.

C. H. PRESCOTT & SONS,

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

The Maple's Shorthorns

Kirklevington Lad, by Imp. Hartford

Welfare, in service. Stock for sale.

J. V. WISE, Gobleville, Mich.

Huron County Shorthorn Breeders Ass'n.

offer for sale Scotch and Scotch topped males and

females of all ages. 300 head to select from. For

information address Jas. R. Campbell, Secretary,

Bad Axe, Michigan.

BUY SHORTHORNS of Central Michi-

gan Shorthorn

Breeders' Association at farmers' prices. Write for

sale list to M. E. Miller, Sec'y, Greenville, Mich.

Shorthorn Bull For sale. Fames Pride

724762. Two yrs. old nice

roan with star in forehead. Very gentle and a fine

specimen of the breed. Price \$225.00.

Veterinary.

CONDUCTED BY DR. W. C. FAIR.

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

Chronic Indigestion.—I bought a calf in the fall of 1919; he failed to thrive the first winter and when spring came he was thin. Last summer he did not do well, but gained in flesh a little, but this spring he is in bad shape. I fed him silage, corn stover, grain and stock food during the winter. F. L., Vanderbilt, Mich.—Mix equal parts of powdered gentian, red cinchona, fenugreek, baking soda, salt, and give a tablespoonful or two at a dose twice a day. Grass is the best food.

Sidebone.—I have a valuable horse that is lame in left front leg. Our veterinary tells me the lameness is caused by sidebone, but if this be true, the bunch is small. He applied one blister, the horse is no better. Would you advise firing? E. L. T., Alto, Mich.—Apply one part iodine and ten parts fresh lard to the bunch two or three times a week. Lower his heels and give shoe rolling motion.

Indigestion.—Have a cow that came fresh four weeks ago which is not thriving. She seems to be most fond of dry oat straw. F. C. H., Clarion, Mich.—Give her one pound of epsom salts as a cathartic, then give her one ounce of powdered gentian at a dose twice a day. Grass is the best feed for her.

Malignant Sore.—About the middle of last summer a sore came on the fore part of cow's udder, which has never healed. A crust forms, or a sort of scab comes on top of sore. W. C. P., Beaverton, Mich.—Apply equal parts of oxide of zinc and boric acid to sore twice a day. Occasionally apply tincture of iodine. In my practice I frequently burn a sore of this kind with a red hot iron; this stimulates a healthy action, then wound heals.

Muscular Rheumatism.—We have a black cow six years old. Just before a storm she shows lameness in right fore and left hind legs. She has bunch on knee, also lost her last calf. R. B., Homer, Mich.—Give her a teaspoonful of nitrate of potash in feed or water three times a day, during stormy and changeable weather.

Failure to Come in Heat.—I have four cows that fail to come in heat, but everyone of them seem to be in perfect health. R. H. M., Harbor Beach, Mich.—Give each cow forty grains of ground nux vomica and sixty grains of ground capsicum in feed twice a day.

Stiff Pigs.—Have a litter of pigs that are four months old, which are stiff and sore. The hind legs of one swelled and it died. E. D. Y., Linden, Mich.—Give each pig five grains of sodium salicylate at dose twice daily, feed less corn.

Rheumatism.—Brood sow three and a half years old is stiff and sore. She is disinclined to walk, has generally raised nice large litters of pigs, until this fall. What had I better do with her? Mrs. C. M., Springport, Mich.—Give her ten-grain doses of salicylate of soda three times a day. Her history is such as to cause doubt regarding her permanent recovery. Perhaps it would be wise to market her to butcher. You have fed her too much corn. She also lacks exercise.

Weak Calf—Dead Twin Calves.—We have a cow that gave birth to a weak calf last year. Calf came at proper time but lived only a few days. This year she had twins, both came dead. What had I better do with her? I might add that she is apparently in good health. G. W. L., Jasper, Mich.—If she is a good milk-producer and profitable, breed her again; if not, fatten and beef her.

Enlarged Withers—Eversion of Uterus.—Ever since harvest time the withers of my five-year-old mare has been considerably enlarged. Veterinary cut into bunches, found no pus. Had applied liquid blister, also blue vitriol, neither seemed to help. His general health is good. Have a three-year-old cow that had eversion of womb when she last calved, will she be likely to have the same ailment again? C. T., Clifford, Mich.—Apply equal parts of oxide of zinc and boric acid to wound twice a day, when withers suppurate, have veterinarian open abscess freely in order to allow perfect drainage. Be sure to exercise the cow before calving, and open bowels at calving time.



Start the Young Pigs Right

By Giving Them

Semi-Solid Condensed Buttermilk

This buttermilk is pure and fresh, taken direct from our churns. It is pasteurized and concentrated to about one-seventh of its original volume by boiling it down at low temperature under a vacuum. Every pound of it is solid food. It contains no indigestible matter. This is the best feed known for hogs or poultry. Send for our descriptive booklet and price list for any quantity desired.

Manufactured and sold direct by
J. A. LONG COMPANY, 304 E. Elm Street, Union City, Ind.

O. D. ARMY BLANKETS

genuine O. D. Blankets that cost the Government \$5. Special purchase permits this low price.

\$7.95 Army Officers' Shoe, cordova calf, rubber heels—stylish and long wearing. 485

Goggles, with rubber frames. They keep 49c the dust from your eyes.

Write for our Bargain List. Send cash and postage with order. References: Peoples State Bank, Detroit. Money back if you want it.

EPP'S

64 Cadillac Sq., Detroit, Mich.

Shoo-Fly



For keeping flies, gnats and many other insects off animals. Used and endorsed since 1885 by leading dairymen. Cows give 25% to 35% more milk during fly season if sprayed with Shoo-Fly. \$1.50 worth saves \$20 in milk and flesh alone on each cow in a single season. Excellent for galls. Alays itching. Aids in healing cuts and sores. Excellent for lice and mites in poultry houses. Send \$1.50 for enough Shoo-Fly to protect 10 cows 2 weeks, also our 3-tube gravity sprayer. Money back if not satisfactory. Name Express Office. Booklet FREE. SHOO-FLY MFG. CO., 1334 N. 10th St., Phila.

\$3.75 C.O.D.



Black Heavy Calf Skin Farm Work Shoe

Solid leather, all through. Nailed and sewed sole. Dirt proof tongue. Send your name and pay the mail man. Wear 60 days. Your money back if not satisfied. We pay postage. Sizes 6 to 11.

The Double Wear Shoe Co. Grand Rapids, Mich.



\$6.40 BALE

50-lbs. gross 500 ft. to lb. insect proof. Ton lots. \$6.30.

7-S Pure Manila Hay Rope 6 1/4-c ft. Satisfaction guaranteed. Quick shipment.

Write for Folder B. A. H. FOSTER CO. Allegan, Mich.

Feeders Attention

We can sell you Salvage Oats for feeding at prices low enough to store until Fall if you have no stock on feed now. This is the opportunity. Write at once for samples and prices delivered in carlots.

C. E. Dingwall Co., Milwaukee, Wis.

McCaffrey's Hay Manager

Now With
Geo. E. Rogers & Co.

We solicit your consignments. Liberal advances on all shipments.
Geo. E. Rogers & Co., 601 Wabash Bldg., Pittsburgh, Pa.

Eggs

Our trade on fancy poultry farm eggs is increasing daily. Therefore we are in a position to pay liberal premiums above the Chicago market for fine new laid stock.

Special premium for whites. We solicit your shipments. Ship via Express.
AMERICAN BUTTER & CHEESE COMPANY, Detroit, Mich.
2034 Howard St.

HAY

Ship E. L. RICHMOND CO., Detroit. ESTABLISHED 1893. Highest Prices—Prompt Returns.

Kentucky Tobacco 3 years, old, aged in bulk, the best and cheapest smoke on earth. 5 lbs. \$1.00 postpaid. Freight and express shipments. 50 lbs. \$6.00; 100 lbs. \$10.00. S. ROSENBLATT, Hawesville, Ky.

WANTED

Learn how anyone can own a high grade tractor on the "Easy Payment Plan". Address P. O. Box 1130, Indianapolis, Indiana.

Farms and Farm Lands

Fine 80 Acre Farm and Complete Outfit for Only \$1500 Down

80 acres, 50 acres cleared, remainder pasture, clay loam soil, fuel for home use, good orchard, four room frame house, good barn \$240, good orchard, well and windmill, short distance to small town, 1/2 mile from fine lake, with this place goes one third of crops, one team of horses, two cows, one new wagon and stock-rack, double-harness, mower, hay-rake, binder, plow, spring-tooth drag, spike-tooth drag, and a number of small tools. Possession of buildings and pasture given immediately and remainder as soon as crops are off. Price \$3500. Write W. F. UMPHREY, Ellettsville, Mich.

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Wanted to Hear from owner of land for sale. O. K. HAWLEY, Baldwin, Wisconsin.

FARMS Poultry, truck, stock, and grain farms cheap. FIGGS & NOCK, Salisbury, Md.

HOGS

Duroc Bred Gilts

for Sept. farrow from prize winning stock, at \$25 and \$35. Spring boar and sow pigs of Orion Cherry King, Col., and Pathfinder breeding.

W. C. Taylor, Milan, Mich.

Reg. Duroc Boars wt. 125 lbs. \$30.00. Fine J. R. HICKS, St. Johns, Mich.

Duroc Jersey Boars of all ages, big, heavy boned smooth kind, real herd boars and priced to sell. First check for \$50 gets a 400 lb. April yearling, a grandson of Panama Special. Write for pedigree or come and see. Visitors always welcome. Satisfaction guaranteed. Thos. Underhill & Son, Salem, Mich.

DUROC SOWS and gilts bred to Jacks Cherry Orion King No. 169259 Son of the \$10,000 boar owned by Longview Farm, Le Summit, Mo. also young boars ready for service out of good sows. Apply THE JENNINGS FARM, Bailey, Mich.

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

Registered Duroc Pigs \$10 Each Write your wants. F. A. Lamb, Cassopolis, Mich.

Duroc Jerseys Am booking orders for spring pigs. Few fall gilts. E. D. HEYDENBERG, Wayland, Mich.

DUROCS A few choice, ready for service, boars for sale. HARRY FOWLER, Sturgis, Mich.

O. I. C's. Last fall gilts bred to farrow in Aug. boars for service, also spring pigs for sale. MILO H. PETERSON, Ionia, R. 2, Mich. Elmhurst Farm.

O. I. C. Swine Strictly Big Type with quality. A few gilts bred for last of April, and May farrow. A few Sept. and Oct. fall pigs either sex. Extra good ones. Of our State Fair prize winning blood lines. Will ship C. O. D. and record them free. NEWMAN'S STOCK FARM, R. 1, Marlette, Mich.

O. I. C's Choice gilts for April and May farrow, also fall pigs. Booking orders for spring pigs. A. J. BARKER & SON, Belmont, Mich.

Write for Prices on O. I. C. pigs of March and April farrow. Both sexes, Sire C. C. Callaway Boy. Good long ones the kind that fills the Pork bbls. Some good Jersey bull calves of the Albertas Jubilee kind. All stock reg. in buyer's name. VILLAGE STOCK FARM, Jeddo, Mich.

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

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

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

O. I. C's. one yearling boar, last fall gilts bred for next fall farrow; this spring pigs not akin, big growthy stock, reg. free. City's phone. 1/2 mile west of Depot. OTTO B. SCHULZE, Nashville, Mich.



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

O. I. C. HOGS

all ages sired by Callaway Edd 1918 world's grand champ. boar and C. C. Schoolmaster 1919 world's grand champion also Wonder Big Type and Giant Buster. Write your wants, all stock shipped on approval.
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O. I. C's. Special prices on spring stock. Must be sold to make room. WEBER BROS. Phone R. O. 408, 10 mile Rd. W., Royal Oak, Mich.

O. I. C's. Special prices on choice pigs of March and May farrow by C. C. Big Callaway. C. J. Thompson, Rockford, Mich.

O. I. C. Big type serviceable boars, weigh from 150 to 250 lbs. Gilts bred for May and June farrow. Write for prices. G. F. Andrews, Mason, Mich.

O. I. C's choice boars and spring pigs at farmers prices. CLOVER LEAF STOCK FARM, Monroe, Mich.

O. I. C. GILTS Bred for June and July farrow. H. W. MANN, Dansville, Mich.

Spotted Poland Chinas

The hog with more outcrosses than any other breed. Which insures vitality and prolificacy. Why breed and feed grade hogs when you can buy registered hogs at special low prices. Write me your wants in bred gilts, boars or spring pigs. Cholera immuned. Satisfaction guaranteed.

SAMUEL GERBER R. 4, Bluffton, Ind.

L.T.P.C. \$15, \$20 & \$25

Our top notch stretchy boar pigs are weaned and ready to ship. They are sired by such boars as Harts Block Price Cline's Big Bob, Right Kind Clan and Leonard's Big Bob. HART, FULCHER and CLINE, Address F. T. Hart, St. Louis, Mich.

Big Type Poland Chinas. Choice spring boar pigs \$15 each when 8 weeks, sired by Clansman Buster and their dam being a prize winner at the State Fair. Also gilts bred for Sept. farrow for \$40 and up. DORUS HOVER, Akron, Mich.

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Big Type Poland Chinas. A great litter by Checkers; dam a grand-daughter of Giant Buster, are for sale now. They were farrowed Mar. 11, and were purchased of Jim Bloemendaal, Alton, Ia. in dam. Do you want the best the breed produces? Come over and see them. Wesley Hile, Ionia, Mich.

Leonard Farm BIG TYPE P. C. boar pigs at weaning time, \$35 from Mich. Champion herd. Satisfaction guaranteed. Call or write. E. R. LEONARD, R. 3, St. Louis, Mich.

Big Type P. C. some very choice boars double immune, out 1100 lb. sire and mammoth sows from Iowa's greatest herds. E. J. Mathewson, Burr Oak, Mich.

Big Type Poland Chinas at lowest prices. Both sows and gilts. G. A. BAUMGARDNER, R. 2, Middleville, Mich.

Cows bred for spring litters all sold. Have some choice gilts bred for Aug. litters, also some Sept. boars for sale. Clyde Fisher, R. 3, St. Louis, Mich.

I. T. P. C. few choice bred gilts sired by T's Clansman 1920 Gd Cham, bred to Smooth Buster 1st Jr. yearling 1920 A. A. Feldkamp, Manchester, Mich.

For Sale: Poland China Pigs, Both Sex. Fred Jewson, Walnut Ridge Farm, Allegan, Mich.

L. T. P. C. Nothing for sale at present. W. J. HAGELSHAW, Augusta, Mich.

Hampshire bred gilts now ready for Aug. and Sept. farrow; spring and fall boar pigs at a bargain. JOHN W. SNYDER, R. 4, St. Johns, Mich.

Hampshires

1914 A few choice boars of this spring farrow that sure will improve your herd if used for herd boars. They are bred right and are right, and will produce right. Write for description and prices. We are glad to answer inquiries.
Steuben's Hampshire Farm, Angola, R. 3, Ind.

Pine Grove Hampshires

Bred sows all sold. We are offering 100 spring pigs of excellent breeding and quality. Either sex, at a bargain. GEO. COUPAR & SONS, Marlette, Mich.

POULTRY

Special Sale on Pullets

We will have a special sale on our Bred-to-lay April hatched Single Comb White Leghorn pullets at 75 cts. each. Sale starts now and ends July 4th.

This stock is No. one quality produced on our own farm, from high quality stock and is fully guaranteed. Take advantage of this opportunity to secure good stock at a reasonable price. This offer will not be repeated this season as we are selling our own stock only. Order direct from this ad. and save time.

Macatawa White Leghorn Co. R. 1, Holland, Mich.

June Chicks Buy 'em Near Home Hatches each Monday and Tuesday. Brown and White Leghorns, \$12.00 per hundred. Barred Rocks \$15 per 100. Red, \$13.00 per 100. Add 50c for half and quarter hundred. Please name second choice. Prepaid and guaranteed live delivery.
Washtenaw Hatchery, Ann Arbor, Mich.
We Close July 1.

CHICKS AT REDUCED PRICES

after June 15th and during July S. C. W. Leghorns \$10.00 per 100; Barred Rocks \$12.00 per 100. Parcels Post paid 100% safe arrival. Circular.
Sunnybrook Poultry Farm, Hindsdale, Mich.

LATEST MARKET REPORTS

GRAIN QUOTATIONS

Tuesday, June 21.

Wheat.

Detroit.—Cash No. 2 red \$1.35; July \$1.29; No. 2 white \$1.28; No. 2 mixed \$1.30.

Chicago.—No. 2 red \$1.36@1.37½; No. 2 hard \$1.36½@1.38; July \$1.28½; September \$1.23.

Corn

Detroit.—Cash No. 2 yellow 62½c; No. 3 yellow 61½c; No. 4 58½c.

Chicago.—No. 2 mixed 61¼@62¼c; No. 2 yellow 62½@62¾c.

Oats.

Detroit.—Cash No. 2 white 40c; No. 3 white 38½c; No. 4 white 35½c.

Chicago.—No. 2 white at 37¼@38c; No. 3 white 36½@37¼c.

Beans.

Detroit.—Immediate and prompt are lower at \$3.50 per cwt.

Chicago.—Market is steady and demand good. Hand-picked Michigan beans choice to fancy at \$4.20@4.50; red kidney beans \$9@9.25.

New York.—The market is quiet. Choice pea \$4.60; do medium at \$4.75; red kidney \$11.50.

Rye.

Detroit.—Cash No. 2 rye is higher at \$1.23.

Seeds.

Detroit.—Prime red clover \$13.50; October \$11.75; alsike \$14; timothy at \$3.15.

Hay.

No. 1 timothy \$19@20; standard and light mixed \$18@19; No. 2 timothy \$16@18; No. 1 clover mixed \$14@15; No. 1 clover \$13@14; rye straw \$13.50@14; wheat and oat straw \$12.50@13 per ton in carlots at Detroit.

WHEAT

Wheat prices declined sharply during the past week largely as a result of country offerings of the new wheat for early shipment. Cash wheat buyers were disposed to await this movement from the southwest. Many farmers are anxious to sell as soon as the threshing starts, appearing to fear a further decline later in the season. How much of a decline will occur, it is impossible to say, but no factor will be of more importance than the rate at which farmers sell. Crop reports during the past week have been unfavorable on the whole. Deterioration from weather and insect pests have been reported in Ohio and in the western states while drouth is threatening spring wheat in the Dakotas and unconfirmed reports of the serious species of black rust have been sent in from the same sections. Also early threshing returns have been disap-

pointing in Kansas, Missouri and Illinois.

CORN

The leading corn surplus states report the new corn crop in unusually fine condition thus far. Prices for cash corn are not far above the lowest point of the season but the market is displaying a firm undertone as a dry weather scare during July or August which will advance prices is anticipated.

OATS

Some of the important oat-producing sections report dry weather damage and the crop condition elsewhere is spotted. Prices are expected to respond to some extent to crop damage although the stocks are unusually large and the time is short until the record acreage of new oats will be ready for harvest.

FEEDS

Millfeeds again displayed weakness and are selling at the lowest prices in eight years. Further declines have been forecasted by some of the trade interests as soon as new wheat begins to be milled in volumes. Production at present is light but demand is extremely slack and the result of good pastures and the availability of new hay.

HAY

Hay markets have been steady during the past week, chiefly as a result of light receipts as the demand is far from brisk. The harvest of new alfalfa has been delayed by heavy rains in Nebraska and parts of the southwest.

WOOL

Wool market sales continue at a moderate rate at unchanged prices. Mill activity continues and demand for cloth is satisfactory but mills are buying wool only as they book orders since stocks of wools are large enough to enable them to buy to advantage on short notice. Boston prices are as follows: Michigan and New York fleeces, delaine unwashed 35@36c; fine unwashed 30c; half-blood unwashed 29@30c; three-eighths blood unwashed 27@27¼c; quarter-blood unwashed 26c.

BUTTER

Butter prices advanced again last week in spite of liberal receipts and most of the advance was retained at the close of the week. Consumptive demand remains strong and buying for storage is brisk except upon sharp upturns. Undergrades have been disposed of without difficulty as receipts of these grades are running smaller than usual for this season of the year. Prices for 92-score fresh butter as

quoted by the bureau of markets are: Chicago 32½c; New York 33c. At Detroit fresh creamery in tubs is quoted at 29c per pound.

EGGS AND POULTRY

Receipts of eggs at the four leading cities declined substantially below the preceding week and prices held unchanged although the movement into cold storage remains rather heavy. Poultry receipts contracted and prices, especially upon hens, advanced rather sharply.

COMING LIVE STOCK SALES.

Guernseys.—October 19, Michigan State Sale, Lansing, Mich. F. E. Fox, Waukesha, Wis., Sales Manager.

Aberdeen-Angus.—September 23, Eastern Aberdeen-Angus Breeders' Association Sale, Eastern States Exposition, Springfield, Mass. F. W. Barnham, Greenfield, Mass., Secretary.

Aberdeen-Angus.—October 12, Indiana Aberdeen-Angus Breeders' Association Sale, Indianapolis, Ind. Prof. C. F. Gobble, Lafayette, Indiana.

Live Stock Market Service

Wednesday, June 22.

DETROIT

Cattle.

Market very slow; quality common; mostly all grassers.

Best heavy steers \$ 7.00@ 7.75
Best handy wt bu steers 7.50
Mixed steers and heifers 7.00

Handy light butchers 6.00@ 6.55
Light butchers 3.00@ 5.00
Best cows 5.00@ 5.25

Butcher cows 3.50@ 4.50
Common cows 2.50@ 3.25
Canners 2.00@ 2.50

Best light weight bulls 4.75@ 5.00
Bologna abulls 3.50@ 4.50
Stock bulls 3.00@ 4.50

Feeders 5.50@ 6.25
Stockers 3.25@ 5.00
Milkers and springers \$ 40@ 75

Veal Calves.

Market opened steady, but closed at 50c lower.
Best \$10.50@11.00
Others 4.00@ 8.00

Hogs.

Market steady.
Mixed hogs \$8.75
Pigs 8.85
Heavy 8.25

Sheep and Lambs.

Market dull, quality common.
Best lambs \$10.50@13.00
Fair lambs 9.00@10.00
Light to common 5.00@ 7.55
Yearlings 4.00@ 8.50
Culls and common 1.00@ 2.00
Fair to good sheep 3.00@ 3.55

CHICAGO

Hogs.

Estimated receipts today are 25,000; holdover 5,604. Market active and 10c lower, mostly steady. Bulk of sales at \$8.40@8.75; tops \$8.80; heavy 250 lbs up medium, good and choice \$8.40@8.65; medium 200 to 250 lbs medium, good and choice \$8.55@8.75; light 150

to 200 lbs common, medium, good and choice \$8.55@8.75; light lights 130 to 150 lbs common, medium, good and choice at \$8.35@8.75; heavy packing sows 250 lbs up smooth \$8.10@8.40; packing sows 200 lbs up rough \$7.85@8.10; pigs 130 lbs down medium, good and choice \$8@8.60.

Cattle.

Estimated receipts today are 12,000. Dry-fed steady; others lower. Beef steers medium and heavy weights 1100 lbs up choice and prime \$8.60@9.25; do medium and good \$7.50@8.65; do common \$6.50@7.50; light weight 1100 lbs down good and choice \$8.25@9.25; do common and medium at \$6@8.25; butcher cattle heifers, common, medium, good and choice \$4.25@8.25; cows common, medium, good and choice at \$4@6.65; bulls bologna and beef \$4@6.50; canners and cutters cows and heifers \$2@4; do canner steers \$2.55@3.55; veal calves light and handy-weight, medium, good and choice at \$8@9.75; feeder steers common, medium, good and choice at \$5.75@7.55; stocker steers common, medium, good and choice \$4.25@7.25; stocker cows and heifers common, medium, good and choice \$3@5.50.

Sheep and Lambs.

Estimated receipts today are 18,000. Lambs are 50c lower; sheep steady. Lambs 84 lbs down medium, good, choice and prime at \$9.50@12.75; do culls and common \$5.50@9.25; spring lambs medium, good, choice and prime at \$6.50@10; ewes medium, good and choice \$3.50@5.50; ewes cull and common at \$1@3.25; breeding ewes full mouths to yearlings \$3@5.75.

BUFFALO

On this market heavy hogs brought \$9@9.25; mixed hogs \$9.50; others at \$9.50@9.75. Lambs and calves sold for \$12 per cwt.

INDEX TO Vol. CLVI.

From January 1, 1921 to July 1, 1921

Editorial.	Good feeding is essential.. 58	"Signs" of the times.....660	Cooperation between city and country466	Predatory animals, controlling435
Background of success, the660	Grain marketing meetings328	Special session, the, 680, 636	Cost of government520	Progress of packers' control bill608
Capital for farm success.....660	Growing cattle feeds.....464	State financial problem.....368	Cost of government520	Recreational work466
Choosing work on the farm604	Improving forage markets.....552	Taxation problems216	Curb market for Pontiac.....656	Road legislation.....718, 719
Clearing commodity sales.....432	Quality of cream432	Sugar beet situation604	Emergency tariff reenacted434	Sales tax opposed.....718
Clover seeding problems.....238	June 14, flag day.....712	Summer reading important464	Enormous tonnage hauled.....740	Snell forestry bill374
Commodity price figures.....238	Keep up the social meetings26	Test all farm seeds.....288	Farmers favor rural police 4	State department of agriculture332
Cooperative grain marketing496	Legislative plans and problems58	This year's seeding problems26	Federal warehouse act, 28,260	income tax law380
County government again.....58	record572	Touring and learning712	Fishing in great lakes.....459	legislation468
Current business events.....238	Live stock meeting.....2	Training future leaders.....136	Flint municipal market.....530	parks open685
Dairy outlook improves.....464	Marketing farm products.....368	Watching our wood supply572	Freight rates to benefit Michigan potato men.....532	Tariff vs. embargo.....434
Developing home markets.....464	Marketing farm machinery328	production problems604	Government will sell harnesses468	Tourists meet at M. A. C. 265
Do not overlook the hog.....712	Meeting agricultural competition552	Where diversity helps.....636	Grain future trading bill.....662	Trade commission proposes curb on trading in grain4
Emergency tariff measures408	Michigan leads with Rosen rye660	Why a family garden?.....176	Halliday, H. H., chosen as agricultural commissioner528	Traffic between the two peninsulas554
Equipment prices reduced.....552	National tractor show.....136	Will solve mutual problems604	Homes, they desire.....740	Transportation rates too high576
Farm bonds for farmers.....572	Neighborhood customers, the26	Working with nature.....680	Huron county farm news.....743	up282, 330
Farmers' national program552	Playing the game square.....528	Agricultural News.	Immigration restricted689	Washington letters, 4, 62, 146, 220.
pay the freight136	Potato market, the.....528	Agricultural department bill380	Lime, value of740	Western Michigan boosters active704
week program112	Progress and reactions.....496	American representative at Rome317	M. A. C. drainage conference433	Wireless market reports.....498
Farming and the farmer.....176	Protecting cut-over settlers136	Bills to investigate agricultural situation706	establishes library extension service673	Farm.
Federal farm loan law stands328	Public industrial interests.....2	Branch county news.....653	More efficient government service299	Agrarian movement in Canada257
Fighting forest fires.....712	Railroad rates and business528	Chinchbug outbreak probable740	Paekers control legislation285	Alfalfa crops better531
Forecasting the future.....112	Raising better horses.....216	Cold storage act298	Pageant at M. A. C.691	field, oldest691
Forward to the farm.....112	Record association service 88	Collective bargaining706	Poultry culling pays.....740	more popular565
Freight rate problems.....408	Salesmanship on the farm 2	Community meetings446		
Future economic balance.....256	School on the farm, the.....572	Conference at M. A. C.687		
General price reductions.....636				

Annual sweet clover, 289, 434	Training cloverland farmers 663	reau 70, 336	Poultry, breeds of 372	Lumps in the teats 402
Automobiles on the farm, 336	Trees around the home 527	Other state farm bureaus 232, 296, 370, 436, 467, 502, 556.	houses, types of 355	Luxation of stifle 283
Beans in Huron county, 555	Trucks vs. teams 704	Pooling commodities 465	queries 519	Malignant sore 131
situation 89	Upper Peninsula News, 7, 36, 66, 94, 118, 150, 186, 248, 302, 340, 382, 416, 442, 474, 508, 534, 577, 612, 644, 666, 686, 742.	Potato exchange, a pattern 438	Quack grass, destroying of 31	Mammitis-mastitis 211, 631
Beet acreage 707	Ventilate the hay mow 564	federate 715	Quart weights of feeds 19	Mange in rabbits 491
problems 139	Wheat and rye promise well 525	growers' exchange joins farm bureau 436	Railroad fences, upkeep of 640	Necrobacillosis 323
production, cost of 605	When school days are over 635	producers' association 184	Ration deficient in protein, 267	Nodular disease 402, 459
Better results from oats, 369	Why a soil survey? 565	Referendum for farm bureau 662	Renting orchard on shares 487	Over-feeding 567
Business outlook 133, 656	Woodlot, value of 615	Seed business grows 576	Rights of lessee from life tenant 688	Paralysis, 323, 363, 459, 567
Clearing land pays 615	Farm Organizations, (Social, Breeders, Cooperative Marketing).	sold by farm bureau 436	closure 688	Partial loss of power 599
farms 737	Advertising northern Michigan 466	State fair scandal 85, 87	on shores of great lakes, 640	Pinworms 429
Climate and the corn crop, 367	Agricultural bill passes 412	State fair exhibits 740	under land contract, 504, 610.	Preventing heat 631
Clover roots 465	club entertains speakers 247	farm bureau annual meeting 178		Puffy hock joint 491
seed prices 293	extension work at Marquette 493	Sugar beet contracts 532		Punctured leg 53
Consolidated school articles, 255, 331, 407, 571, 713.	Northern alfalfa seed for Michigan farmers 740	Washtenaw farm bureau banquet 10		Rheumatism 53, 283
Corn for famished China, 4	American farm bureau will sell grains 260	Wisconsin farm bureau 224		Ringworm in cattle 363
growers' experience 607	Beet growers' campaign, 468	Wood being made into goods 436		Scours 323, 491, 631, 706
prices 376	Breeders' association organized 493, 564	Wool dealers meet 549		Sore feet 730
yields, planning for big, 551	Brody, Clark L., chosen secretary of farm bureau 256	pool, the, 60, 290, 468, 502, 556, 606, 636, 638, 677, 680, 688, 714, 740.		eyes 754
Crow, controlling the 705	Cloverland branch of the farm bureau 528			neck 631
Cutting timber 3	round-up 377			shoulder 53
Cutworm, controlling the, 605	Committee of fifteen, 55, 290, 682.			tail 323
Demonstrates uses of light soils 629	Condensed milk market, 739			Spavin of larynx 171
Emergency forage crops, 433	Cook declines presidency of beet association 576			Stifle injury 525
Extend farm loans 188	Cooperation in Michigan, 717			Stocking 283, 429, 655
Farm buildings in Michigan 434	Cooperative buying increases 569			Stringhalt 547
business outlook 601	vs. speculative marketing 294, 330, 371			Stringy milk 283
forestry 111	Criticizes farm bureau 376			Sunflowers as food 491
statistics 498	Crop improvement association 184			Supporting udder 171
tenancy 59	County agents vs. farm bureau 295, 502			Surfeit 655
to-market roads 677	agricultural agents for Michigan 257			Sweeney 754
woodlot 415	fairs 582			Teat obstruction 730
workshop, a 280	government 60, 180			stricture 599
Farmers demand credit and cooperation 147	Directors of U. S. Grain Growers, Inc. 529			Too much bowel action, 429
in Thumb active 206	Elevator exchange saves money 532			Toxemia 567
Farming light soils 333	Elevator exchange to increase sales 740			Tricophytosis 363
Fertilizer for potatoes, 432	purchased by farmers 569, 576			Tuberculosis 171
Fire protection for forests, 498	situation in Midland 554			Udder ailment 754
First bean laboratory in Michigan 375	Farm bureau and credit, 55			Unthrifty cow 675
Five-horse evener 500	business increases 576			colts 754
Forage crops 609	executive committee meets 217			horse 491
Freight rates must be cut, 408	expenses 412			sow 402
Getting production cost, 23	membership growth 220			Urinary ailment 655
Good roads vs. motor trucks 223	notes, 23, 26, 60, 88, 114, 224, 258, 290.			Warbles 525, 599, 754
Grasshoppers, controlling 558, 689	loan bonds delayed, 434			Wart on eyelid 131
poison for 575	organizations do farm work 434			on neck 53
Harvesting the ice crop, 113	Farmer and the college, 57			teats 402, 754
High-testing phosphates, 432	public 25			Weak heart 730
Improved crop varieties, 135	Farmers and bankers get together 69			Weakness 631
Keeping the highways open 358	ratify grain plan 496			Wheezing 491
Labor for farms 470	auto tour 127, 583			White scours 323, 706
prices lower 615	institute at Menominee, 470			Worms 323, 402, 655
situation 338	program 92			
Lantern, the 383	week, 60, 114, 125, 138, 140, 177, 239, 240, 246.			
Legal powers of farmers, 137	Financing cooperatives 369			
Lighting plants in Michigan 218	Forest producers organized 434			
Limestone, cost and value of 707	Freight rates 688			
Maple syrup making 296	Grain marketing plans, 323, 328, 330, 682.			
Market outlook for potatoes 493	Grain housing, seeking improvement in 739			
Marketing woodlot crops, 34	Grange annual meeting, 6			
Michigan crop report, 109, 119	in Cloverland 569			
experiment station 735	Illegal interest rates, 95			
fox farms 33	International Grain & Hay Show 633, 679			
grains in foreign lands, 714	Joint stock banks defended by farm bureau 662			
Mid-state farm activities, 360, 371, 410, 435.	Legislative program of the farm bureau 30			
Muck farming problems, 437	Live stock exchange, 380, 657			
lands, to classify 530	Market crop report, 657			
National crop report 405	Marketing problems, considering system wasteful 292			
Native trees on farm 431	Michigan farmers' automobile tour 467, 736, 737			
News from M. A. C. 260	grain growers' endorse national plan 210			
Oat prices 574	highway activities 409			
Paint now 536	potato growers' opportunity 95			
Potatoes, greater production per acre 467	well organized 380			
growers discuss marketing 37	More readjustment needed 173			
on sweet clover stubble, 294	National tractor show, 222			
Prices of agricultural products 439	New members of board of agriculture 259			
farm products decline, 282	Onion growers' pool interests 497			
Protecting crops 3	Organizations aid farm bu-			
Pulling stumps 317				
Robust beans 691				
Rotating crops on muck, 64				
Roughage supplies 295				
Rural life and the young farmer 87				
Rye on sweet clover stubble 223				
in winter wheat 754				
production in Michigan, 689				
Sales and expense record 5				
Seed corn test 49				
pedigree important 285				
prices tumble 468				
thresher 149				
Seeding clover with oats, 409				
Shade trees by the roadside 565				
Shall I grow beans this year? 607				
Soldering 583				
Soybeans 61, 182				
Spreading straw 63				
Studying light soils 717				
Sugar beet acreage 633				
contracts 359				
production 291				
Sunflower crop, the 557				
Sweet clover, why raise, 471				
Taking the guess out of farming 141				
Title drainage 495, 553, 573				
Timothy prices 378				
Tool shed 191				

Holstein breeders meet at Niles	253	Nitrate of soda for orchards	144	Linens for the household	124	Financial diagnosis, a	101	Forest of Hon. George B. Horton	111
makes a good record	677	Orchard demonstration	506	Little flier in poultry	700	Goodwill everywhere	198	Fruit trees injured by rodents	435
Sales at good figures	755	Pruning trees	167	Michigan girl works her own "twenty"	562	Is our civilization christian?	696, 723	Geese	226, 316
Horse, a serviceable type of	151	bush fruit	301	Midwinter vegetables	201	Kingdom within, the	158	Gladden, Mr., and Keweenaw Bay Pig Club	242
for market	499	Peas for canning	637	Nature's danger signals	394	Michigan's round-up leads	239	Grain improvement	135
markets decline	632, 656	Plum rot	690	Dean at M. A. C., the new	352	Guernsey cow takes prize	320	herd sire of A. B. Calkins	424
Incorporate sales association	547	Porch climbers	614	One-dish meals	200	W. W. Wigman	179	Halladay, Herman H.	528
Insuring better stock	33	Rabbits injure brambles	10	Pamphlets for mothers	201	Hand seed thresher	149	Happy days in spring	660
Is live stock farming safest?	555	Red raspberry culture	744	Patchwork—old but new	274	High-grade sire	82	Hogs	529
Jackson county dairy notes	456	Rodents injure fruit trees	435	Pattern service, 161, 241, 275, 395, 485	274	Hog receipts and prices	115	Home demonstration agent	240
Kosher stock	596	Seed peas	642	Pillow slip decorations	102	from France	463	Horticultural exhibit at M. A. C.	175
Light run of cattle	253	Spray for apple scab	578	Rhubarb jam	749	Ice harvesting	113	Infected flock section	91
Live stock association program	55	Spraying, things learned about	614	Schoolma'am, the poor	422	International Grain & Hay Show scene	679	Iron kettle modernized	313
shipping report	505, 554	Standardized containers	680	Score one for the new girl	274	Jones, "Cookie"	81	Kea destroying sheep	128
auctions	321	Strawberry bed	49	Sewing helps for spring	450	Kitchen conveniences	622, 726	Lamb receipts and prices	180
commission house for Detroit	549	patch, the	578	Shiawassee county activities	749	Lane, Lucas B.	415	Leguminous crop	333
committee reports	498	black root	614	Sound minds and healthy bodies	327	Lighting plants in Michigan	218	Lincoln, Miss Helen V.	104
exchange delegates meet	222	everbearing	665	State Grange, women's interests at	124	Linen	124	Making home in U. P.	787
in Michigan	228	Tent caterpillars	690	Stitch in time, the	78	Marking farm seeds	141	Machine shed	375
meeting	90	Thin garden crops	690	Stocking repairing	44, 648	Michigan club leaders	524	Grangers at annual meeting	1
receipts	461	Trouble with cucurbits	720	"Trifles," are they	200	McPherson, M. B.	290	Nicolson, Mr. J. W.	439
Locating dairy leaks	50	Use strong dormant spray	375	Virgin wool or rag-bag shoddy	312	Oat prices	574	One-dish meal	200
Manufacturing wool into cloth	380	Poultry and Bees.		Tragedy of old age	748	Onion growing	497	Patchwork designs	274
Mark your pigs	575	Beekeeping in Michigan	329	Women's congress	240	Poultry houses, 29, 204, 454, 482, 486, 672, 700	294	Preparing the corn ground	522
Market milk cost	597	Blackhead in turkeys	518	Boys and Girls.		Preventorium scenes	78	Prize corn crop	542
problems	294	Brooding by hundreds	68	"Achievement Day" observed	698	Red Polled sire	314	Reforestation work in the United States	432
Meat packers close plan	434	Brood coops and poultry	486	Attending the International	104	Rye on sweet clover stubble	223	Repairing stone-paved hill	287
Michigan law on licensing sires	520	Broody hens vs. egg production	544	Attention of young feeders	424	Rye, Rosen	439	School buildings and children	259
Milk for children	653	Chinese egg industry	486	Boy used his brains	356	Roomy farm house	514	Schurr, Miss Eva K.	670
scales bring profit	298	Egg markets	329	Boys mourn the death of "Cookie" Jones	81	Rye owned by P. P. Pope	248	Self-feeder illustration	219
sold direct	434	February poultry notes	126	Boys' and Girls' Clubs	356, 725	Soy beans	61	Spragg, Prof.	135
will demand clean	299	Feed the bees now	453	scholarship at M. A. C.	650	State farm bureau officers and executive committee	217	Steers	555, 575
Milking time	488	Fine feathers or eggs	164	work	517, 699	feeding day at M. A. C.	661	Michigan-fed and bred	681
Minerals in swine rations	457	Giving baby chicks good care	398	Calf club in Iron county	591	native beef prices	531	Stump blasting	437
Molasses for feed	575	Goslings, how to raise	396	Champion bean grower	424	Sugar beet field	139, 573	Sweeney, Miss Mary	352
Number of live stock decreases	213	Goose farming	544	Club items	289, 590	Sweet clover, White Hubbard annual	289	Tiled land	496, 553
Poland-China sale	131, 208	Handling the incubator	278	members in Cloverland	315	Timothy seed prices	378	Tool shed plan	191
Polled Hereford cattle	202	Hens, a living from	414	scholarships are announced	455	Tractor on farm, 87, 409, 603, 605	605	Trees around the home	527
Preparing for strong lambs	320	adopts chicks	487	work in song	454	Truck vs twenty teams	704	Untilled field of corn	499
Provisions decline	69	Hen habits	752	Community meetings well attended	563	Waiting to unload 1921 clip of wool	685	Wallace, Henry C.	356
Pure-bred hogs pay	530	Home-grown poultry feeds	204	Corn club story	542	Wheat	287, 371	White Holland turkeys owned by Mrs. Edw. Colling	278
live stock	292	Keep the chicks growing	672	Country boy's creed	16	Winter scene	58, 358	Woman's building at M. A. C.	711, 735
stock	361	Leg bands	728	Cow-testing club	483	Woodlot transformed into lumber by portable sawing outfit	463	Woodpile	137
Record milk yield	549	March poultry notes	316	Crafty raft	517	"Wood Day" at Charlotte	637	Workshop plan	280
Red Polled cattle	314	Mating the breeding flock	396	Effects of smoking	315				
Reduced fares to big sale	629	Poultry ass'n meeting	226	Farm and home work a good game	590				
Register the good pure-bred	520	houses and yards	29	boys to be state fair guests	699				
Ridding flocks of tuberculosis	91	culling profitable	673	Father should spend time with son	542				
School for veterinarians	717	houses and yards	29	Getting the right start	276				
Scope of dairy industry	743	hints	18, 354	Girls' club work in Indiana	591				
Selling cream on its merits	335	show at M. A. C.	244	Giving baby chicks good care	398				
pure-bred stock	575	Pure-bred poultry pays	487	How animals fight	128				
Sheep industry, our	469	Rabbit diseases	728	do you help most?	315				
market outlook	69	Review of egg market	752	I raised my pig	398				
markets	180	Selecting birds	380	to make a bench	46				
Shipping association elects officers	569	Senate approves new egg law	554	to tell a story	482				
organized	597	Setting the hen	518	International club judging contest	671				
Shorthorn sale at East Lansing	359	Seasonable poultry notes, 126, 316, 452, 594, 626, 703	703	Junior club activities	16				
Silage from sunflowers	303	Turkey and chick management	544	Local club leaders	524				
Sour milk	581	When shall we market the poultry?	294	Pin-money methods	750				
Steer feeding day at M. A. C.	604, 661, 681	Why are hens too fat?	164	Pointers	483				
Stock shippers meet	142	Household.		Polled Hereford cattle	202				
Surplus milk outlet	380	Activities among Michigan farm women	240	Potato crop, my 1920	243				
question	466	Altering patterns	394	Poultry lessons, 425, 454, 482, 516, 543, 563, 590, 625, 650, 671, 698, 750	243				
Treating calves for scours	705	Apple cookery, variety in	102	notes	243				
Tuscola farmers make live stock inspection tour	681	Are we fair to our feet?	352	President receives essay winner	591				
Use more milk	169	Bedtime toys	451	Red Polled cattle	314				
Value of milk in diet	743	Building the new home, 514, 622	514	Saved by an air hole	242				
Why cream will not churn	564	Canning pointers	727	Seen from a car window	47				
Wool and woolens	674	Child's account book	451	Shall I borrow to learn?	699				
pool for 1921, 60, 290, 463, 502, 556, 606, 638, 662, 677, 680, 688, 714	89, 573	Clothes moth, the	592	Ski-racing on	47				
slump, the	89, 573	Community club, a live	160	State club winners are announced	243				
statistics	157, 709	meetings in Shiawassee	622	Strong chicks thrive	277				
Horticulture.		Cooking in iron	313	Successful plan to keep young folks interested	698				
Annuals, attractive	649	Coverlet from scraps	451	Summer school M. A. C.	751				
Blackcap raspberries	34	Dinner for tomorrow, 727, 749	749	Things to do when it storms	104				
Bordeaux mixture	507	Double boiler, an improvised	45	Trip to the International	80				
Buying nursery stock, 70, 148	570	Dress forms, how to make	484	Upper peninsula club notes	357, 563				
Cankerworm control	570	Dressmaking aids	275	Value of education	625				
Canning crop data	444	Drinks for summer	701	Vegetable garden, my	16				
Cold storage plant at Benton Harbor	440	Economics course revised	593	Word to parents of club members	698				
Dehydrating vegetables	615	Estimating table costs	161	Young folks give pointers	724				
Destroying orchard brush	473	Farm home carefully planned, a	540	Youth teaching the new agriculture	162				
Fruit damaged by freezing	466, 554	Girl graduate, the	670, 726	Magazine.					
farmers' plan cooperative action	468	Gnats on house-plants	161	Bible and a square deal	76				
growers' conference called	265	Hand lotion	45	Blind men	236				
cooperate	374	Helps for home-makers, 201, 515, 623, 648	201, 515, 623, 648	Blue laws, revising the	669				
rackages too high	622	Hints for the home dyer	79	Christianity and the next war	646				
Garden notes, 570, 578, 652, 665, 720	126	Home demonstration agent activities, 14, 44, 422, 485, 515, 701, 726, 120	14, 44, 422, 485, 515, 701, 726, 120	Clan Call, the, 386, 418, 446, 478, 510, 538, 560, 586, 618, 647, 668, 694, 722, 746	478, 510, 538, 560, 586, 618, 647, 668, 694, 722, 746				
Grape growers meet	126	economics building at M. A. C.	14, 450	Easter means what to you?	420				
anxious over tax	719	grounds, beautifying the	562, 592, 649	Farmers' Week visitor, a	420				
Hawks, war on	652	Household efficiency discussed by women	726	Fighting diseases with a tooth brush	77				
Horticultural exhibit at M. A. C.	175	helps, 103, 313, 423, 485, 515, 623, 670, 701	103, 313, 423, 485, 515, 623, 670, 701						
society meet	184	How much do you eat?	78						
Huckleberry growing	655	Ink stains from wash goods removing of	79						
Kentucky wonder beans	301	Ideal kitchen	748						
Lawns, how to make	711	Kitchen utensils, selection of	670						
Marketing, fruit	461, 506	Labor-saving devices	450						
Michigan's fruit crop	219	Leader of home demonstration, the new	44						
New York fruit growers meet	116	Less don'ts	125						