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VOLUME CLV. NUMBER SIX

DETROIT, AUGUST 7, 1920

CURRENT COMMENT

The Official Test

THERE is probably nothing that has promoted the interest in purebred dairy stock so much as official testing as conducted by the four leading dairy breed associations. These tests have brought the good cows of the breeds to the front, and provided means whereby the scrub cow with a pedigree could be weeded out. While breeders of dairy cattle made great progress before they had official records to guide them in selecting and mating their animals, much of the good work consisted in developing an improved type rather than increasing production at the pail. Breeders of today, however, must center their efforts upon breeding high-producing cows. With official records as a guide the problem of breeding dairy cattle is reduced to almost a mathematical science. It is interesting to note that official testing has proved the master-key in unlocking the mysterious forces of heredity and putting them to work for mankind.

As purebred dairy cattle increase in numbers two forces are constantly battling for supremacy—one of improvement, the other of deterioration; the former in the hands of skillful breeders, the latter in the hands of unskillful breeders. In the conflict between these contending forces the gulf is constantly widening until on the one hand some of the animals of the breed are no better than scrub cattle, while the other forces are progressing along well defined lines. As the herd is being developed it is important that some kind of milk and butter-fat records be kept in order that the owner may foster and encourage the forces he desires to perpetuate in the easiest and most natural way. Such progress is possible in no other way than through the use of accurate records. Official testing furnishes accurate records in such reliable form that the new breeder as well as the skillful moulder of animal form and function may safely use them as a basis of selection in purchasing new animals for his herd, and in conducting his breeding operations from year to year.

The breeder who neglects official testing finds it especially hard to dispose of his surplus bulls at remunerative prices, and often, far too often, he appears willing to sacrifice his profits from that source while he is rearing his young heifers to add to his herd. Besides, he has been lectured to, over and over again, by dairy experts and some of his breed publications that buyers of purebred stock prefer animals from the herds of men

who have an established reputation in the breeding world. Of course, well-known breeders have an advantage in selling bull calves at advanced prices. There never has been a time, however, when the breeder who made no violent outcrosses, developed his best heifers and made good milk and butter-fat records with them, could not find a ready sale for all the really good bull calves he could produce. Breeding along approved lines and testing all of the good females for official records is, after all, the only logical course to pursue in building up a herd of purebred dairy cattle. It frequently happens that some cow of the breed, a near relative of some of the animals in the new breeder's herd, makes a great record. Then, if he has conducted his breeding along lines similar to those practiced by other good breeders and made a few credible official records, he is in a position to capitalize on the records made by the old established breeder.

Failure to recognize the value of official testing as a complement to the business of breeding and selling registered dairy cattle is proving a stumbling block to more than one man's progress. When prospective buyers of breeding stock begin to inquire about the official records of the dams and granddams of this and that animal he offers for sale, he awakens to a realization of the fact that it is impossible to cash in on individuality and pedigree unsupported by official records. Such records not only add to the value of the cow as a breeding proposition, but they add to the value of all the calves she has ever produced and all of her descendants for several generations. It is discouraging, indeed, for one to invest good money in foundation stock, spend years of painstaking work breeding and rearing a herd of high-producing cows, only to discover that at the very time when success should be within his reach that buyers shun his animals because there are one or two bad breaks in their line of officially tested dams. And this is precisely what happens to all new breeders who neglect to put their cows on official test.

Extending the Golden Rule

THE slow forward march of civilization has been characterized by the doing of one lesson at a time. No argument is needed to convince that this is the age of the social problem. There is not only given to this generation the mission of dealing with the social question but it has to a very large degree a distinct consciousness of the responsibility. In spite of all the extraordinary achievements of the immediate decades—the mighty combination of political forces, miraculous scientific discoveries and transforming business methods, etc., there is in the heart of this present time a burning sense of social maladjustment—a consciousness that our economic development is somewhat out of line with our social ideals of liberty and equality.

Fortunately there never was a time when so many people were stirred to action by a call to social service as is seen today. The great interchurch world movement has met with a most hearty response from laymen and churchmen everywhere; our literature is overflowing with the desire to serve; the farmers and laboring classes are eagerly scanning pages and holding conferences to discover guidance through the maze of perplexities; class organization on an unprecedented scale, is consolidating the forces of those who have heretofore fought for rights or advantages single-handed; legislation that practically revolutionizes the earlier ideas of government is now offered freely and at this moment there are millions of citizens who seem

ready to subordinate other problems to those growing out of social life.

If the passing and coming generations are to be faithful to their responsibilities in dealing with this stupendous issue, they must act intelligently and with discretion. To do this amidst the present perplexing conditions is not an easy task. We venture, however, that the old enemy of social progress—selfishness—must again be put down and his present strangle hold on class relations be loosened. What the golden rule has done to bring men of the same class together and to develop the spirit of cooperation among those who are employed at the same kind of service, the socialization of that rule might do in overcoming the maladjustment of classes. There is in the idea of extending this rule to include classes food, at least, for the thoughtful consideration of all who are seeking to place business and society on a higher level.

Cooperation and Manhood

WHILE the anticipated economic advantage coming to the individual and to the community through cooperative effort furnishes the great motive for developing this movement so rapidly, the benefits derived from cooperatives do not stop with economic ends. Prosperity following the successful establishment of one of these institutions in any community constitutes merely the foundation for the further progress of the neighborhood and those concerned.

The forces which operate to develop an intelligent and loyal citizenship in a democracy, work in a similar manner to develop the members of a real cooperative enterprise. Here the members have a direct privilege bound up with a real responsibility, the same that a citizen of a state has in his representative government. Failure on the part of the members to understand or to believe in the principles of this movement is given as the greatest obstacle to its rapid spread over the state and nation. The most able managers of cooperatives are unable to make the organizations successful even in an economic way, without the mutual assistance of the members. And, on the other hand, those who aid most in making their association successful are not only the most intelligent and best informed members, but they also have breadth of vision, are steadfast in their purpose, and confident that the great cause of cooperation will ultimately win. These men are so anxious to bring victory that they are willing to labor and sacrifice to gain the end. From these observations of students who have made a careful study of the effect of cooperative organizations on individuals and on the community life, it is apparent that successful cooperatives furnish the communities in which they are located a wonderful school for the development of character of a high order.

Agriculture's Big Question

THE one question which will ever remain at the top of the list of agricultural problems is the question of soil fertility. It is at once fundamental and ever-present. No person can call himself a farmer until he reaches the point where he appreciates the need of maintaining in the soil the necessary plant food elements in such state that the plants may appropriate them to the utmost. Because these things are true, it is reassuring to see so many queries relating to the proper way to build up run-down land or to keep good land at its maximum producing power. The majority of these queries touch upon the use of either manure or commercial fertilizers.

While the returning of manure to

the soil will counteract in a large way the depletion of soil fertility, it is by no means the whole solution to the question. Fertile fields are not only the foundation for successful crop production, but are also the foundation for the successful breeding of live stock. It is impossible to produce the highest class of stock on farms that lack in the essential elements of fertility. Kentucky has justly become famous on account of her splendid horses. These she can produce because the land is naturally rich in lime, which element is essential in raising large strong-boned animals.

Every person who has enjoyed a few years' experience at stock raising and farming has had the value of stable manure as a fertilizer thoroughly impressed upon his mind. The larger and healthier plants and the increased yield of grain resulting from the use of manure have been too apparent to allow for questioning. But the merits of artificial fertilizers have not been observed so generally. Frequently the effect of artificial fertilizer cannot be accurately judged by the eye. A difference of twenty per cent in the yield of a crop will often be imperceptible. But that the results from the proper use of these commercial soil foods are just as certain as from the use of the stable manure, is testified to by the careful work of every important government experiment station and this testimony is supplemented by the practical experiences of thousands of progressive farmers.

And during these later years men have learned more accurately the exact part these fertilizers have in the great program of maintaining fertility. Less is heard about substituting and more about supplementing the supply of farm manure with the commercial goods. In fact, the great bulk of the work along this line goes to show that the soil delights in a mixed diet, that the best and, it now appears, the only way to permanently maintain or increase the fertility of our farms is by the judicious use of commercial fertilizers in conjunction with the use of manures, the growing of legumes and the generous application of lime.

News of the Week

Wednesday, July 28.

THE original plan for a peace conference with the Russian Soviet is supported, providing border states are represented at the conference.—Poland is asking the United States for army equipment and her moral aid in the present war with central Russia.—Two earthquake shocks disturb the inhabitants of Los Angeles, while a third is reported from Chile.—Air mail service from New York to San Francisco will probably be inaugurated by the post-office department September 1.—Greek troops capture the Turkish commander and his entire staff at Adrianople, which virtually ends Turkish control in Thrace.—Eastern states receive priority in coal shipments in the decision of the Interstate Commerce Commission.

Thursday, July 29.

DUTCH business interests take over oil properties at Baku near the Caspian sea.—Marshal Foch, of France, advises the Polish armies to fight.—Federal officials predict large reductions in clothing prices, while food prices will likely be little changed.—The Interstate Commerce Commission is petitioned by attorneys for live stock producers' organizations to agree upon some equitable method of applying whatever railroad rate increases may be approved by the commission.—Francisco Villa is reported to have surrendered to the Mexican government at Salinas, in the state of Coahuila.

Friday, July 30.

A BILL to deal with the disorders in Ireland will be introduced next week in the British House of Commons.—Advices reaching Washington indicate that Japan is pursuing a policy of assimilation in Siberia and China.—Canada's total exports increased \$45,000,000 the last twelve months.—Coal miners of the Wilkes-Barre district refuse to go to work following an order by their chairman to return or (Continued on page 162).

Uncle Sam's Men Who Serve You

An Organizer of a Nation-Wide System of Education and Research in Agriculture and Home Economics, is Director True, of States Relations Service.

By Capt. H. P. Sheldon

A GREAT winner of battles." That was the description I had of the man; and the search for him took me to the top story of a gray office building in Washington. I wanted to see this warrior—this man who fought the battles of the farm boy and farm girl, the farm woman, and the farmer himself. Quite naturally, I expected to find a typical fighter, a man lean of frame and strong of jaw; a man of steely eye and brief, curt address. But when a door opened and I stepped into the office of Dr. A. C. True, Director of the States Relations Service, United States Department of Agriculture, I met a man who had none of those marks which denote the warrior—excepting, perhaps, the eyes, which were steady and direct in their gaze. The man looked more like a scholar than a fighter; yet I had another's word for it that he was a winner of battles.

But was that all that my informant had said on the subject? Wasn't there another phase? Oh, yes! "He wins his battles without fighting them!" That was the rest of the sentence; the qualifying statement that helped me to reconcile this scholarly appearing man with his reputation of accomplishment. "Winning battles without fighting them!" Strategy instead of force of arms. Didn't a great general say that more battles are won by marching than fighting? Haven't history's greatest soldiers been scholarly men? I began to understand.

Dr. True is not a fighter in the sense of plunging against obstacles; rather he is a diplomat and wins his point by clearing away the trouble-making barriers. He has great faith in common counsel, mutual understanding, and broad-minded cooperation. In the days when Dr. True was beginning the task that was to be his life work he was often met by strong, sincere opposition from men or from organizations. When this occurred, did he rave and rant and argue and antagonize? Indeed he did not! He gave his opponent credit for a sincerity equaling his own, and then set about to find why their "minds did not meet," as the lawyers would put it. Nine times out of ten he found the obstacle, nine times out of ten it was only the confusion of two minds striving for the same worthy goal, but approaching along different paths, and nine times out of ten he succeeded in clearing the misunderstanding away and enlisting the support of his one-time opponent in the great cause for which he worked—the elevation of agriculture to its true rank as a profession, and the enlisting of effective cooperation of all worthy forces to this end.

Dr. True was educated at Wesleyan University, graduating from that institution in 1873. He attended Harvard University from 1882 to 1884. His education was classical and scientific, though it proved to be admirably adapted for the service he was to perform. His interest in agriculture came later, when the establishment of agricultural experiment stations and the development of the land-grant colleges opened the door to professional training in agriculture. Dr. True's work, after he

left college, was that of teaching, but he was soon called to Washington to organize and edit the Experiment Station Record, which is now recognized as the most complete review of scientific investigation in agriculture in the world. This was in 1889, and from that time on Dr. True's effort was directed toward organizing and establishing agricultural research on a sound scientific basis, putting agricultural subjects in pedagogical form—shaping the science of agriculture so that it could be more effectively taught in American colleges and schools—and making agriculture a recognized, honored, and useful profession.

"Judge a carpenter by his chips," is a homely way of stating the great truth that a man must be judged by the work he has done. Dr. True has heaped his bench with the right sort

sustaining by the work of the service. It has made important contributions to the scientific and practical knowledge of the economical and efficient use of the products of agriculture and to the subject of home economics in general through its investigations relating to foods, diet, clothing, and household equipment, work, and management.

To the inquiring person Dr. True will probably emphasize especially the contribution of the States Relations Service toward making the science of agriculture an accepted course in American educational institutions, but you will find many men high up in farming affairs who hold this accomplishment second to that of organizing and developing experiment station work under the Hatch and Adams Acts, or the cooperative extension work in agricul-

agents." The department aims to have one each of these useful citizens in every county in the United States. At present, the score shows one-third of the total number of counties supplied with both, one-third with men agents only, and one-third with none at all. The battle is not yet won—there is still much to be done in the way of organizing the cooperative forces throughout the country, but training men and women for the very exacting work of the profession, but the doctor is steadily scoring his quiet victories, and he will win for his idea, if there is any virtue in straight thinking, clear vision, and unwavering faith in the cause he advocates.

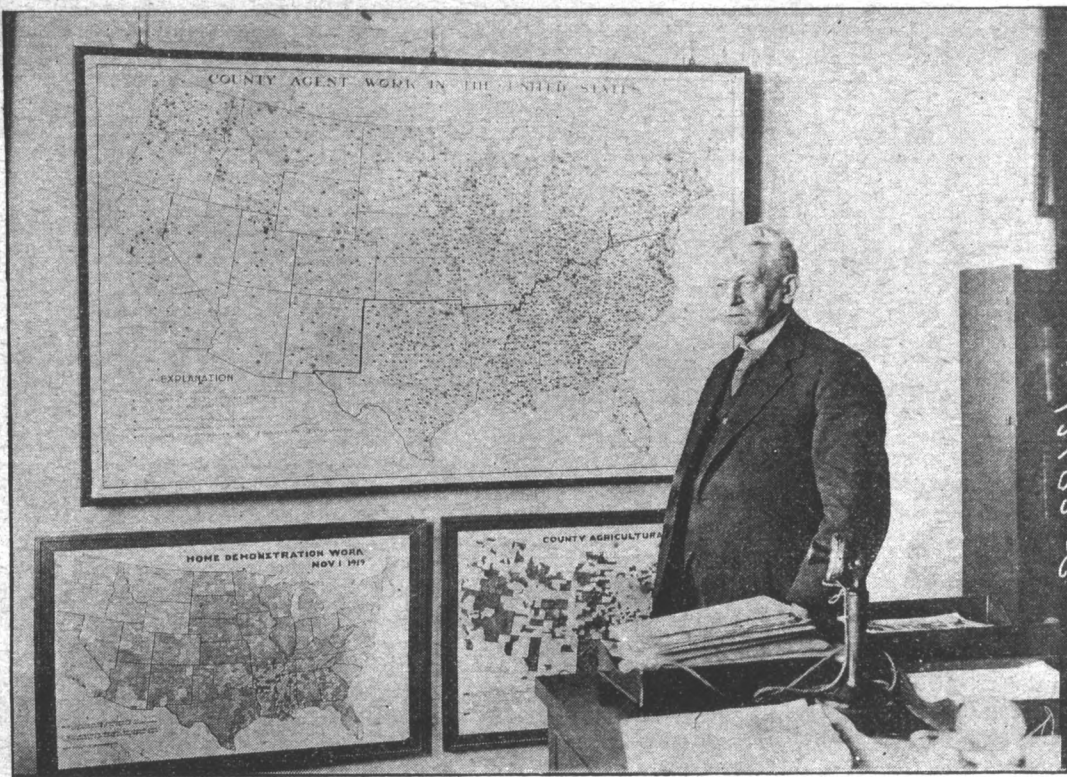
Dr. True's relaxations and recreations are what one might suppose them to be—travel, trout fishing, and botanizing. He loves to spend his vacations in the beautiful Champlain country of Vermont, where he finds ample opportunity to indulge in his favorite pastimes. His Vermont neighbors remember instances when, with the hay out, and a summer storm approaching, they have welcomed the appearance of the scholarly volunteer and his pitchfork. In these tasks as well as in the greater work of the office he holds, in the Department of Agriculture, Dr. True has been as loyal in nature as he is True in name.

OLEO MEN BUSY.

IT is evident that the oleomargarine manufacturers are making preparations to secure the removal of the tax on colored oleomargarine during the next session of congress. They are promoting a widespread propaganda, in which they are attempting to show that the tax is an increase of twenty-five to thirty per cent to the consumer, and is a hardship upon the people. Figures compiled by the Bureau of Markets show that production of colored oleomargarine increased from 8,000,000

pounds in 1918 to over 20,000,000 pounds in 1919, which they claim shows that there is a demand on the part of the people for colored oleomargarine. The total production of oleomargarine in the United States has increased from 143,157,238 pounds in 1912-13, to 348,975,925 in 1918-19, according to the commissioner of internal revenue. Unless dairy farmers use some timely discretion in regard to the men they select to represent them in congress and are organized for a systematic, wisely directed campaign in opposition to the oleomargarine interests at the beginning of the session of congress in December, they will very likely be unable to prevent the enactment of an amendment to the oleomargarine law removing the tax on colored oleo.

THE Department of the Interior announces that nearly 14,000,000 acres of Western lands were classified during the months of June under the stock-raising homestead law, which makes public lands available for entry for stock raising purposes in homesteads of 640 acres or less. More than 74,000,000 acres have now been classified as stock raising land since the passage of the act in 1916.



Dr. True is, and Looks Like, a Scholar, but he is also a Winner of Battles.

of chips. His tool has been the Office of Experiment Stations and its enlarged successor, the States Relations Service of the Department of Agriculture, and here are some of the finished products turned out by this bureau under his direction.

It has helped greatly to bring about the present system of agricultural experiment stations, which is "unsurpassed in the world for its efficiency and practical usefulness to agriculture."

It has been influential in putting the subject matter of agriculture and home economics carried out by the county agricultural agents, home demonstration agents, club leaders, specialists, farm bureaus, and publications.

A widespread revival of the production and conservation, by canning and other means, of fruits and vegetables for home consumption is a notable achievement of the extension workers of the service.

Alaska owes its agricultural awakening to the service, and hardy cereals and vegetables are now grown within a comparatively short distance of the Arctic Circle.

The agriculture of our insular possessions—Hawaii, Porto Rico, Guam, and the Virgin Islands—is also being developed and made more nearly self-

ture and home economics under the Smith-Lever Act. In the latter case there was a new idea in agricultural education to be tried out on a broad scale. If it should prove successful the extension system promised to be the most intimate and effective means for carrying precise and specific information to the farm people.

Thanks to the efficient organization which was built up, the extension system did work, and it worked so well that in the years since the first county agent went out to his work the number of county agents, home demonstration agents, club leaders, and extension specialists engaged in extension work has increased to about five thousand specially trained men and women—the infantry of the Department of Agriculture and the state agricultural colleges; the live, intimate, friendly personalities who help the farmer and the farmer's wife, as well as the boys and girls of the farm, in their daily battles with farm problems.

The ideal of service to the farmer that is the motive power back of every project of the Department of Agriculture is expressed by the States Relations Service, mostly in terms of agricultural and home demonstration agents—men and women county



Don Shepard and Three of His Shorthorn Cows.

EATON county offers a volume of subject matter for whomever would speculate on the possibilities of its diversified agriculture. Riding with Roy E. Decker, County Agricultural Agent, from Charlotte to Eaton Rapids and Diamonddale, and west to Pottsville, Grand Ledge, Mulliken and Sunfield, then on down the west side of the county through Vermontville to Bellevue, then over to Olivet and back to Charlotte; and visiting many farms within a radius of six miles of Charlotte with Ralph W. Tenny, Assistant County Agent and Club Leader, the Circuit Rider cannot help but emphasize the good qualities of the county in terms of productive farms, substantial buildings, good live stock and the many cooperative organizations which have earned the respect of the farmers by their close attention to business.

Luxuriant fields of alfalfa, clover, corn and small grains render the dairy industry capable of rapid expansion. Hand in hand with dairying goes beef, pork, mutton and wool production. The only limit to dairy production is the scarcity of farm help; while the limit to beef, pork, mutton and wool production is the lack of suitable land for grazing. In a county with so little cheap land farmers find it too expensive to feed beef cattle, hogs and sheep on a year-round basis. This, in a large measure, explains why purchased cattle and sheep are depended on to consume the home-grown feeds. The feeding of hogs, when conducted on a moderate scale, can be made to yield fair returns, but it is doubtful if it can be made highly profitable or to fit in with modern ideas of soil management. Not that the hogs remove more plant food from the feed they consume, but because it is difficult to get the resulting manure to the fields without heavy losses of fertilizing elements. The leading crops of the county are corn, rye, sugar beets, apples, truck crops, beans, alfalfa, mixed hay, wheat, oats, and small fruits. This year's acreage of beans and sugar beets is somewhat reduced as a result of unsatisfactory prices and the scarcity of competent farm help.

The farmers of Eaton county are well organized for business. The Farm Bureau has more than fifteen hundred members. The officers and members of the executive committee are alive to the needs of the farmer and determined to make the organization one of the best in the state.

ROY E. DECKER, County Agricultural Agent, is a graduate of Michigan Agricultural College, Class of 1915. Mr. Decker was born and raised on a farm in northern Indiana. After completing his work at college he taught school, served in the United States Army, and came to Eaton county one year ago. He has a keen insight of the agricultural and business problems of the farmers of the county which has gained their respect and

Ralph W. Tenny, Assistant County Agent and Club Leader, is a Michigan product. He graduated from M. A. C. in 1919, taught school at Charlotte one year and took charge of his present work in June, 1920. Mr. Tenny knows the problems of country boys and girls and how to interest their parents in such a manner as to insure their hearty cooperation in his club projects. In addition to club work he will assist Mr. Decker in his work, especially in the management of the new seed department.

W. L. Huber, President of the Eaton County Farm Bureau, is well known as an agricultural leader and progressive farmer. His farm, two miles west of Charlotte, is devoted to growing pedigreed grains, alfalfa and corn. Mr. Huber breeds Victoria swine and Barred Plymouth Rock chickens. His flock of Barred Rocks has been pronounced by expert poultrymen to be the best in Michigan.

J. B. Strange, vice-president, is a graduate of the M. A. C., owns and operates a productive three hundred and eighty-five-acre farm near Grand Ledge. He has a herd of sixty purebred Holstein cattle. His herd sire, Alcartra Pontiac Vale De Kol, is a bull of great individual merit and excellent breeding. His three nearest dams average thirty-one and seven-tenths pounds of butter in seven days. The majority of the females in the herd are of the Vee-man line of breeding. Mr. Strange is interested in apple growing and has twenty-five acres of Northern Spy orchard. He is recognized as a man of sound judgment and good executive ability.

John Loucks, of Charlotte, secretary-treasurer, in company with his sons, owns and operates Ardendale Farm. The farm is equipped with every modern convenience and is one of the show farms of the county. Loucks & Sons breed Holstein cattle and practice general farming. The Holstein herd is headed by Silver Creek Maplecrest Boy and numbers about twenty head. Mr. Loucks will do his part toward making the organization one of service to farmers.

T. A. Farrand, of Eaton Rapids, member of the executive committee, is a practical farmer and fruit grower. On his splendid fifty-acre farm he makes a specialty of growing fine apples. The leading varieties are Jonathans, McIntosh, Steele Reds and Maiden Blush. Mr. Farrand had charge of the South Haven Horticultural Station for four years and served as county agent of Eaton county for eighteen months. He has a thorough understanding of farm problems and can be depended upon to support any movements calculated to increase the profits of farming and make country life more satisfying.

Walter Grant, of Bellevue, member of the executive committee, practices confidence. Mr. Decker is a bachelor. a system of general farming on his splendid eighty-acre farm. He is a

Our Farm Bureaus

Riding Through Eaton County with Circuit Rider Finds Progressive

capable business man and is well liked in his community. During the membership drive he did more than any other person to make it a success in his community.

L. T. Bailey, of Diamonddale, member of the executive committee, practices general farming and stock raising. He is a man of sound judgment and has a thorough knowledge of the problems confronting the farmers of the county. Mr. Bailey is sure to prove a competent leader.

L. A. Parr, of Charlotte, member of the executive committee, is recognized as a man of good judgment and has always been loyal to movements to build up his community. Mr. Parr owns and operates a fine farm and practices a system of mixed farming and stock raising.

Bertrand Youngs, of Charlotte, member of the executive committee, owns and operates a one hundred and seventy-acre farm two and one-half miles west of Charlotte. He practices general farming and stock raising. Mr. Youngs is generally recognized as a

of M. A. C., and thoroughly qualified to represent his people in all matters relating to agricultural and organization work.

E. C. Corey, member of the executive committee, of Olivet, breeds good Milking Shorthorn cattle and practices general farming on his two hundred and forty-acre farm. Mr. Corey is president of the Olivet Cooperative Elevator and can be depended upon to aid in any movement calculated to benefit the farmers of the county.

Mrs. Paul Vahs, the only woman member of the executive committee, lives on a farm five miles south of Charlotte. Mrs. Vahs is a young woman who is sure to do her part in making the County Farm Bureau of benefit to women who live on Eaton county farms. For a number of years she has been active in Grange work and is familiar with problems confronting farm women.

IN discussing some of the phases of the organization work County Agent Decker said: "The Grange and other farm organizations have helped us put across our program. Some of our best leaders were members of these farmers' organizations and their understanding of organization work made it easier to secure results in several communities. Those who underestimate the power of the Grange for good speak without knowledge of the many things it has accomplished during the past fifty years. The very fact that it has been holding meetings from week to week and discussing current topics of the day more than any other group of farmers has enabled its members to grasp the situation more quickly and to work in harmony with members of the Farm Bureau who are not Grangers in improving the business side of our agriculture."

Organization of the farmers in Eaton county seems to be the order of the day, as it is throughout the state of Michigan. In the county there are some fourteen buying and selling associations made up of general farmers and stockmen, not including dairymen and breeding associations. The County Farm Bureau is busy assisting in this organization work and endeavoring to plan the scheme in such a manner that the farmers of every community in the county may have convenient marketing and purchasing centers. In some of the communities the farmers already have strong organizations and others are being formed as rapidly as sufficient interest develops. In a number

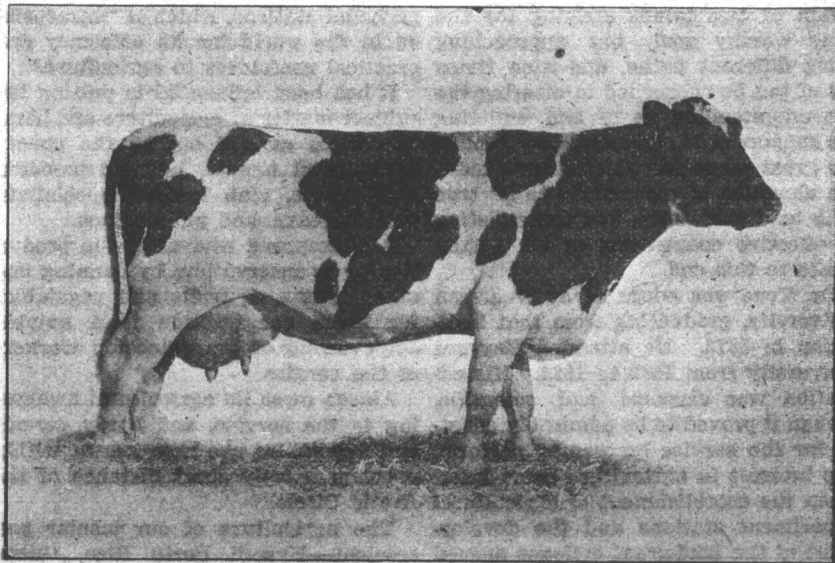


Ralph Tenny and County Agent Roy E. Decker.

man of sound judgment and a knowledge of the farmer's problems, both from the economic and social standpoint.

Andrew Niles, of Grand Ledge, member of the executive committee, has one of the best equipped one hundred and twenty-acre farms in Eaton county. Mr. Niles is one of the agricultural leaders in his community and well-known as a breeder of registered Holstein cattle. At present his herd numbers about twenty head.

E. L. Raven, of Mulliken, member of the executive committee, owns a fertile two hundred and forty-acre farm and practices general farming and stock raising. He grows a large acreage of pedigreed grains and is active in promoting the work of the new seed department of the County Farm Bureau. Mr. Raven is a young man, a graduate



Grandview Mabel Segis from H. W. Hancock Herd. Produces 608 pounds of Milk and 31.774 Pounds of Butter.

and Their Work

County Agents Decker and Tenny the Farmers with a Vigorous Program

of communities, elevators have been offered for sale at reasonable prices and their owners are willing to retire from the field. When opportunities of this kind present themselves the farmers are finding it easy to finance their purchase so that they can begin business in their new quarters.

ONE of the big problems in Eaton county, the same as in the majority of other counties, seems to be that of getting the several kinds of buying and selling associations and companies organized in such a manner that they may take full advantage of the powers of collective buying and selling and not run up against federal laws. Experience has shown that it requires great skill to get these associations welded together in such a way that they can do business without interfering with the strict interpretation of federal laws.

Another matter that seems to be puzzling many members of the County Farm Bureaus is that of determining what constitutes the privileges of members and non-members. Right now is the time to settle some of these problems and get the farmers of the state working along the right lines. In nearly every county these problems are identical and some definite plan of action is needed for them to follow. This is not meant as a melancholy prelude, but merely in the hopes that readers will see the point and cooperate with the proper authorities in putting their organizations on a safe and sound basis.

One of the leading cooperative organizations in Eaton county is the Square Deal Cooperative Association at Charlotte. This organization does an exclusive live stock shipping business and its last year's business was above half a million dollars. The officers and directors are: Forest King, president; P. M. Granger, manager; A. T. Cornell, Fred Terrill, Bert Youngs, Herbert Parr, John Loucks, John A. May, directors. It has been operating four years and does practically all of the live stock shipping business at Charlotte.

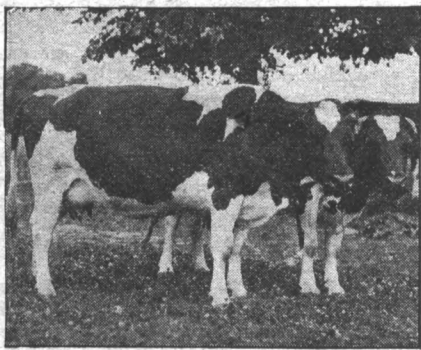
Another lively cooperative organization is the Square Deal Cooperative Elevator Company at Charlotte. During the first seven months it has done a business of more than \$200,000 in handling farm supplies and feeds. The officers and directors are: Fred Terrill, president; L. B. Abbott, manager; Wilbur Martin, Fred Curtis, Henry Perry, Edward Upright, L. A. Parr, John A. May. Mr. May is secretary-treasurer of both organizations and it is very largely due to his efforts that these

organizations have proved so successful.

The Eaton Rapids Live Stock Shipping Association did more than \$200,000 worth of business last year. The officers and directors are: Earl Norton, president; Charles Frye, manager; Frank Abeles, Chauncey May, Rollo Strickling, F. O. Pierce, Robert Kirby, Archelle Paquette, Frank Bostedor, directors. A Cooperative Elevator Association has been organized at Eaton Rapids but the officers have not been elected at this time.

The Grand Ledge Live Stock Shipping Association did a business of more than \$200,000 the past year. The officers and directors are: C. I. Brunger, president; Harrison Doty, manager; C. J. Waldo, C. Benjamin, J. R. Lowell, H. M. Vogt, E. J. Vogt, directors.

The Grand Ledge Produce and Supply Association began business in May with two hundred and fifty members. The officers and directors are: J. B. Strange, president; Harrison Doty, manager; A. B. Niles, Elmer Vogt, Nelson Space, John Espie, Claude Barton, Myron Smith, directors. Two elevators have been purchased and they will



Owned by Charles E. Chappell Estate and Claude E. Smith.

handle most of the business at Grand Ledge this season.

At Sunfield the Live Stock Shipping Association did a business of more than \$171,000 the past year. The officers and directors are: C. N. VanHouten, president; Charles Brown, manager; C. A. Fars, secretary-treasurer; J. A. Beardsley, George Bitterman, P. L. Green, Victor Wilson, directors. The association is also handling cream and pays cash on delivery and makes final payments on basis of receipts. It is making a six per cent saving over what other buyers are paying. The cream is all sold to one company, but plans are under way to operate a plant and ship independent. This is a problem that could be worked out in other communities at a big saving to dairymen.

At Bellevue the Live Stock Shipping



Marshall Kelley and His Championship Angus Bull, Lapeer Blackbird.

Association did a business of more than \$140,000 the past year. This organization has been in the field about three years. John Sharkey is president and O. E. Meade manager.

The Bellevue Cooperative Elevator and Warehouse Company did a business of over \$140,000 last year. The officers and directors are: John Sharkey, president; Glenn Owens, manager; Bert Carroll, F. E. Andrews, George H. Garmes, James Murphy, Charles Olinger, M. J. Horton, directors. It has one hundred and sixty-five members and has been in business four years.

Over at Olivet the Cooperative Elevator Company has one hundred and thirty members and last year's business amounted to more than \$125,000. The officers and directors are: E. C. Corey, president; Charles Johnson, manager; Dr. Burleson, E. P. Reynolds, M. Schiltz, Chauncey Osborne, Frank Etson, Frank Halsey, directors.

At Windsor and Mulliken, Farm Bureau Associations have been organized and will begin business this fall. Other organizations are under way and it is the aim of the County Farm Bureau to have every community served by these cooperative associations before the end of the year.

IN riding through the county we noticed several farmers' cooperative threshing rigs at work. The advantages of these threshing rigs is coming to be more fully appreciated in many counties each year, especially on farms where the acreage of grain is small or where pedigreed grains are grown for seed.

The efforts of the breeders of purebred dairy cattle to improve the herds of grade cattle in Eaton county is beginning to bear fruit. Many of the farmers have purchased registered sires and others have organized bull clubs. A few miles from Charlotte six farmers have purchased a Holstein bull for use in their herds. Clifford Jordon, Claude Smith, John Ransom, F. C. Lamont, Fred Youngs and Wilbur Martin are the members of the club, and County Agent Decker hopes to organize other groups of farmers and get them to using better sires.

The Eaton County Holstein Breeders' Association is pushing the breed in the county and making plans to encourage buyers from other states to come to Eaton county when looking for good Holstein cattle. The officers and directors of the association are: C. I. Brunger, president; A. H. Loucks, secretary; J. B. Strange, E. A. Vanderbeck, D. G. Miller, Milton Sprague, C. E. Chapman, directors. One of the aims of the officers is to encourage the use of better sires and more A. R. O. cows.

The Eaton County Shorthorn Breeders' Association was organized in

March, 1919, and now has about twenty members, with the following officers: Ira Zimmerman, of Diamondale, president; Wm. Marshall, of Potterville, vice-president; Lawrence P. Otto, of Charlotte, secretary-treasurer. Mr. Otto is also vice-president of the Michigan Shorthorn Breeders' Association. While the breeding of Shorthorn cattle in the county is in its infancy, there is much interest and enthusiasm and some of the breeders have already made great progress in improving their herds. Dairying being strong throughout the county, there has been a strong tendency to adhere to the milking type of Shorthorn cattle. Among the established breeders are: Simpson Bros. The good five-year-old bull, Archer's Duke, heads their herd and is showing good results. Ira Zimmerman heads his herd with a Milking Shorthorn type of bull that won first in his class at the Illinois State Fair last year. Lawrence Otto has the only herd of Scotch Shorthorns in the county. It is made up largely of Marr-Missies, Village Maids, Alexandrinas, Carmens, Lavenders, Countess and other popular families, headed by Village Lorne, a good son of Imported Lorne of the Prescott herd, who was twice Grand Champion at the Michigan State Fair.

With the assistance of the County Shorthorn Association a purebred Shorthorn bred-heifer club has been organized among the boys of the county. While the club numbers only twelve, each boy is a booster for the breed and very much interested in the project. Out of the twelve, eight bought bred-heifers. The president of the club bought a choice Scotch heifer that is a show prospect. The club members are Donald Shepard, president; Ralph Johnson, secretary; Gerald Bradley, vice-president; Fay Halsey, treasurer; Emery Halsey, Charles Dawson, Walter Ball, Morrison Clay, Pearl Baker, Myrle Wheaton, Verness Wheaton, Wilson Winegar.

COW-TESTING association work has been receiving due attention in the county and could be made a more prominent feature of dairy improvement if some method could be devised so that small breeders might have their cows tested in such a manner as to give the yearly records an official standing that would mean something. There is no logical reason why this work could not be put on a more substantial basis, so that the same associations would serve breeders of purebred dairy cattle, as well as farmers who are now building up herds of grade cattle for profitable milk and butter-fat yields. Here is an opportunity for dairy farmers and breeders of purebred cattle to cooperate and eliminate the expense of official testing and culling out the low producers from

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Here Are the Members of the West Carmel Good-Luck Canning Club.

Midwest Farm Bureaus Meet at M. A. C.

Important Subjects are Considered by Our Best Informed Agricultural Leaders

THE meeting of the presidents and secretaries of the Farm Bureau Federations of the midwest states, held at Chicago July 23-24, was continued at East Lansing on Tuesday and Wednesday, July 27-28. While a number of important agricultural problems were discussed at this East Lansing meeting, the greater portion of the time was devoted to the consideration of various marketing problems. Chief among these was the grain marketing program discussed at Chicago and reported in the last issue of this journal.

Mr. Sapiro Speaks.

The ways and means committee were fortunate in again securing Mr. Aaron Sapiro, attorney for eight of the California cooperative exchanges, to present the fundamental principles of cooperation as they have been worked out in California. Mr. Sapiro differentiated between the Rochdale or English system, and what he calls the California or American system of cooperation. The Rochdale plan was developed as a buyers' organization, while the Californian system is a plan for selling the products of its members. He also drew the line between the marketing of perishable products and non-perishables. In marketing perishables, the big problem is that of shipping, while in distributing non-perishables, the big question is one of storage or warehouses.

Marketing is the business of an expert. It is equally as foolish to put the job of selling grain or live stock into the hands of an amateur as it is to have one unacquainted with law to draw a deed or will. The farmer is gambling when the farmer sells his wheat to the speculator. The latter is not only qualified by native shrewdness and experience, but in addition he is well equipped through trade connections to know the conditions surrounding the market, while the farmer at best is very poorly informed. Consequently the individual farmer is perfectly helpless when he attempts to sell his products alone to the speculator.

The Making of Prices.

Mr. Sapiro recounted the oft repeated statement that wheat prices are supposed to be made in Liverpool. He pictured how the supplies from six surplus producing countries are supposed to move toward the English port and as a result of this and the centralized demand at that point, prices were established. These prices would then be wired to all wheat marketing centers and be reflected there. The theory, he declared, is dead and the practice is vile. Wheat prices for America are pretty largely made by a few large dealers in Chicago. These dealers have agents throughout the world who gather information on grain conditions. The practice is to give out to the public only such of this information as will aid these buyers in gaining their selfish ends.

When the western people found themselves in a position somewhat similar to this in the distribution of their fruit crops they sent representatives to Denmark to study the selling associations of that country. This study and the following experiences has resulted in the most successful cooperative enterprises developed in America. During the past year the cooperatives of California have handled over \$300,000,000 worth of farmers' products.

The Game of the Big Buyers.

Here is an example of how the big operators worked the raisin growers. The buyers of various concerns got to-

gether before approaching the farmers and decided upon a program to secure a certain season's crop. They agreed to report to their respective patrons that a 50,000-ton crop was developing, while 30,000 tons was the amount the market needed. This propaganda was spread throughout the producing districts and later the uninformed growers in, comparing notes found that their data agreed, which tended to reassure them of its accuracy. Following this preliminary work, the buyers contracted for the delivery of the crop at one and three-eighths cents per pound, while it should have brought at least twice this amount.

This policy had been followed up to the year 1911, and there had not been a single season previous when the whole crop paid cost of production. By this time the growers were thoroughly discouraged, and land without vines was more valuable than land on which high-producing vineyards were growing. Bankers and retailers also bemoaned the situation since they could do little business when the farmers were poor.

Organize by Commodity.

They agreed to organize and the first season these discouraged farmers were revived and caused to take hope since the price received that year not only paid the cost of production but gave them a little in the way of profit. Not a year has passed since in which this has not been repeated and during the past season when the demand for raisins became so urgent the margin of profit was considerably increased over other years. As a result much planting of new vineyards has been done.

Growers should organize by commodity rather than by locality. No lasting success can be obtained until the organization secures control of the product marketed. This is what the United States Steel Corporation did. Such organization makes it possible for every group of producers to obtain the average maximum price. The raisin growers, through the aid of their local bankers and merchants, were able to sign up seventy-eight per cent of the growers in four months.

Contract with Growers.

He next emphasized that the foundation of the cooperative business is not banking connections, but the contract between the association and the grower. This contract should be ironclad and for a long term. With the raisin growers the term is five years and the conditions of the contract used were so binding that every one of 10,800 contracts written were carried out. Should a person threaten to sell outside the organization they institute court proceedings to secure an injunction to prevent marketing elsewhere than to the association. The contracts not only enable the organization to know just what products they have to sell, but they also furnish the basis for credit at the bank. This year New York bankers solicited the business of the raisin growers and because of the ironclad contracts these bankers loaned \$10,000,000 to the organization at four and three-quarters per cent.

Should Serve Members Only.

Mr. Sapiro's contention is that cooperative associations should handle business for members only. It is organized for them and they should have the benefits resulting, and further, the only way to build up and maintain a membership is to retain for the members the benefits of organization. If an outside grower desires the benefits then he should join.

Through a system of checking up

sales the organization has been able to reduce speculation in prunes from a hundred per cent to less than ten per cent of the crop. The crop is sold to wholesalers or distributors and if any of these houses resells to another wholesale or distributing house thereby increasing the retail price beyond what it should be, the growers' organization sees to it that such concerns do not get another car.

Boards of Trade Unnecessary.

He reaffirmed statements made at Chicago that the grain growers should not seek memberships in the great grain exchanges, but should rather seek to make these gambling institutions useless by selling grains direct from the locals to the millers or consumers. This he feels is easy of accomplishment should certain conditions be complied with.

The boards of trade must have access to the grain before they can use it for speculative purposes. If the farmers through their organizations control sufficient of the grain to make it necessary for the millers and consumers to come to them for needed supplies then the boards of trade can be ignored, and if an organization of this size is made a permanent institution and can keep on supplying grain to its customers from year to year, so that consumers of grain know that they will not be imposed on or boycotted later by the old crowd of speculators, then they, the consumers, will, according to many statements by them, be glad to deal with the cooperatives and have prices stabilized. It is important therefore, before starting, to have sufficient control of the grain and to build a permanent institution.

Treat All Members Alike.

No system is cooperative that allows one farmer, or group of farmers, to make money off another farmer or group. The system must treat every member alike. Every member should realize the same price for the same grade and variety. It is not right that one man should get \$2.40 for No. 2 red wheat, his neighbor \$2.50, and another man \$2.60 for the same grade. A pure cooperative organization would, according to Mr. Sapiro, level up the price and give each man the same money for a product that was uniform in grade and grown during the same year.

Establishing Prices.

The price for the product of any one year is established by the organization. This is quite different than in former times when growers were obliged to take the price offered by buyers whose profits increased as the price paid the farmer was cut down. This price control is now made possible because the growers' organization has seventy-eight per cent of the crop signed up.

Here is how the price is made. All statistics on raisins are gathered, both as to production and demand. The organization through its connection with producers and with the trade, its expert statisticians and sales managers gather the most thorough and reliable data on the raisin industry and the growing crop that can be had anywhere. With this data at hand the directors, sales experts, advertising men, representatives of the public are called in and the matters gone over very carefully. Now these men do not endeavor to secure the very peak price. Rather they go about the matter in a business way, and not on a speculative basis. They agree upon a price which will encourage consumption and still enable the producers to make money. In reducing the wide margin which formerly existed between the farmer's

selling price and the retail prices, these two seemingly contradictory ends are gained to an extent that consumption is growing rapidly and at the same time the growers are sending their children to colleges and universities in larger numbers than in any other part of the country simply because the farmers have money and a reasonable assurance that they will have a living income for the coming years.

Wheat Growers Should Have Control.

Mr. Sapiro advised against the wheat growers organizing into a national organization until they could control fifty-one per cent of the wheat in the surplus wheat states. The average production of this grain in the United States is 750,000,000 bushels while the domestic consumption is about 570,000,000 bushels. If the farmers can have under contract 450,000,000 bushels then they will have control of all that is exported and also make it necessary for domestic mills to come to the farmers' organization for some of their supplies. When this situation comes about it will be within the province of the organization to say what the price will be. Wherever this plan has been followed the public has been served with far more discretion than under the private control system where a dozen or fifteen men sitting at Chicago perform this function. The fluctuations in wheat prices which have taken place recently on our boards of trade could hardly have occurred under the new arrangements.

The grain should be pooled and put in the hands of men who are specialists in their lines. Go to the railroads and get a traffic man. Outbid some successful concern for their sales manager. Hunt out the best advertising man to be found and lay before him your advertising problems. In other words, it requires brains to successfully handle a business of this kind.

His most instructive and interesting address was closed by a statement that there follows a great uplift to the community when put on the right commercial basis. It has proved thus in California and the experience in Denmark has been even more marked.

Conference Starts Educational Program.

As a final result of the address of Mr. Sapiro and the following discussion it was voted that the conference recommend in addition to the committee of seventeen provided for at the Chicago conference, that each State Farm Bureau select and pay the expenses of a representative who will go with the representatives of other states, make a study of the California, and other cooperative institutions, report back to his state organization with such recommendations as he may choose to make. This, it was thought, would prepare the state organizations and the local units to act intelligently when the committee of seventeen offers its report and a general program is up for consideration.

It was further moved that congress be asked to appropriate funds to send representatives and experts to Denmark and Southern Russia to make a study of the cooperative organizations established there, compile the information and make it available.

Professor Mumford Speaks on Live Stock Marketing.

Professor Mumford, who now heads the live stock marketing department of the Illinois Agricultural Association, spoke briefly upon this absorbing theme. He introduced his remarks by stating that he had no definite program to present. The problems connected

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Shipping Problems

By E. E. Reynolds

THERE is scarcely a government activity, the movements of which do not in one way or another very seriously affect the interests of the farmers. "It is a far cry" from the Pennsylvania or Middle West farm to the United States Shipping Board, apparently, nevertheless statements given out by men closely identified with the board indicate that farmers, especially the live stock raisers, may well keep a close line upon the plans and projects under way or contemplated by the men in charge of this government organization.

In an address delivered before the National Association of Manufacturers, the other day, Admiral Benson, chairman of the Shipping Board, said that "the board is determined to live up to the letter of the Jones Merchant Marine law in spite of threats and propaganda carried on by foreign interests seeking to defeat the purpose of the law," which evidently means that an attempt will be made to build up an adequate merchant marine.

An official of the shipping board, who is in a position to speak with authority, says the board is primarily interested in establishing an American merchant marine on a paying basis; but that it is to be accomplished with the future prosperity of the whole nation in mind. This is to be done under the Jones Merchant Marine law, by establishing steamship lines from various American ports to foreign countries where it is thought that profitable passenger and freight traffic can be developed. The ships are to be leased by the Shipping Board to individuals or private corporations under contracts that provide the trade routes under which they are to sail. The board will lease some of its ships to a private corporation to operate from Rio de Janeiro and other South American ports to England.

IN spite of the claim that the American Merchant Marine is to be operated with full recognition of the protection of all American industries, it is announced that two projects are to be developed as soon as possible, which come into direct competition with American agriculture. One is a line of refrigerator steamships between Atlantic Coast ports and the Plata River ports in South America for the purpose of bringing cheap meat from the Argentine to the United States. The other is a refrigerator line to Australia for the same purpose. It is argued that if our merchant marine does not carry the cheap farm products from these countries to our shores the ships of other nations will, and the United States might as well have the benefit of this trade. Profits for the merchant marine and an abundant supply of cheap food for the millions of consumers in the Eastern cities are the inducements back of this project, which will bring the live stock raisers of the Middle West into direct competition with the stock raisers of South America and Australia in our own home markets. The only remedy that is suggested by those friendly to the stock raising industry is a tariff on meats sufficient to protect our American stock farmers from the competition of imported meat products.

The matter of securing a reduction in freight rates on export apples and better transportation facilities has been taken up with the Shipping Board by the National Grange Washington representatives, acting for members of the grange in several states. Unless there is better facilities provided and less prohibitive rates

granted, the Maine apple growers say they will be put out of business. The American Apple Shippers' Association and other organizations, it is expected, will join in this move for better shipping service. A request will be made to the Shipping Board for allocation or special refrigerator ships to handle the apple situation. Some hopes are entertained that relief is in sight.

THROUGH the efforts of the American Farm Bureau Federation Washington office, the United States Shipping Board has announced that it can furnish from thirty to thirty-five boats on the Great Lakes for the transportation of grain, and the rates will be competitive with the railroads.

President J. R. Howard of the American Farm Bureau Federation, while here recently, said "the railroad tangle, with its resulting tie-up in grain movement, is costing the farmers hundreds of thousands daily." He says that with as high as 25 per cent of last year's crop still remaining in the local elevators in some sections, and totally inadequate movement of the new crop, local buyers find it necessary to protect themselves by wider margins. These increases in margins are costing the farmer at the elevator a total of ten cents or more a bushel over the usual handling margins. And this does not benefit the consumer, as it is a direct loss, a sacrifice to inefficiency. "Flour, in fact, is selling at a higher price today through the operation of some of those same inefficiency factors."

"The railway laborer who has willfully cut down his volume of work and repeatedly struck for increased wages may wake up one of these days to find that the increase he has caused in the cost of food, clothing and shelter more than offset the increase he has demanded in wages. There is no more damnable point at which labor can attack our economic structure, and no surer way of cutting its own throat than by cutting down the efficiency and the carrying capacity of our arteries of transportation," says Mr. Howard. "One of the most lamentable features of the whole situation is the effect it may have upon next year's crop. Preparation for the next crop will start within a month, and prediction of heavy cuts in acreage are general."

The American Farm Bureau Federation has plans under way to affect a co-operative grain marketing system which will handle the bulk of the grain produced in the United States at a considerable saving to both producers and consumers. All farm organizations have been invited to co-operate in this movement, especially the associations which have under their control co-operative elevators, with a view to developing a central co-ordinating sales agency for the handling of wheat and other grains. It may take a year or more to perfect the organization, and establish it upon a firm, permanent business basis.

Preferential assignment of cars for the loading of fertilizers to the extent of a minimum of 75 per cent of actual daily requirements has been ordered by the Interstate Commerce Commission. This demand on the part of the fertilizer trade is being followed with another for priority orders for cars to move raw rock phosphate from the mines to the fertilizer plants. The fertilizer movement for the season has already begun in advance of the usual season for the purpose of helping out the car supply.

Paddling Its Own Canoe

THE publisher of a metropolitan newspaper asked recently, "Is it true that there is a common ownership and a common Board of Directors for all the Companies having Standard Oil as part of their name?"

Our answer to this gentleman was, "It is not true."

The Standard Oil Company (Indiana) is distinct from other corporations having a similar name.

It is owned by 4799 stockholders, of whom 2124 are women. No single stockholder owns as much as 10 percent of the total stock.

The affairs of this Company are administered by a Board of Directors consisting of 7 men, who devote their entire time to the Company's business and are connected in no way with any other Standard Oil Company.

Each man has won his position through demonstrated ability and is a specialist in handling the particular work for which he is responsible.

The personnel of the present Board of Directors of the Standard Oil Company (Indiana) is

Mr. Robert W. Stewart
Chairman of the Board

Mr. Wm. M. Burton
President

Mr. Henry S. Morton
Vice-President

Mr. Edward G. Seubert
Secretary-Treasurer

Mr. Seth C. Drake
General Manager—Sales

Mr. Wm. E. Warwick
General Manager—Manufacturing

Mr. Beaumont Parks
Assistant General Manager—Manufacturing

These men fix the policy and practices of the Standard Oil Company (Indiana).

They are responsible only to the 4799 stockholders.

Standard Oil Company
(Indiana)

910 So. Michigan Avenue, Chicago, Ill.

Farmer Interests at Washington

THE American Farm Bureau Federation Washington office is calling attention to the war department's sensational advertising campaign to sell its surplus stock of meats. One large display advertisement which is typical of others, begins as follows:

"Government acts to lower living costs. The Secretary of War orders immediate release and sale to the American public of all meats declared surplus at extremely low prices. By the immediate disposal of its entire surplus stock of canned meats, at the extremely low prices at which they will be sold, the government delivers a powerful blow at the high cost of living. * * * Every available outlet will be used in distributing these meats. Every retailer, from the smallest to the largest, will perform a duty he rightfully owes to every citizen in his community by acting as a medium through which these meats will be distributed at the very low prices at which they can be sold. These goods are not to be offered for export. This decision of the Secretary of War to distribute them through every possible channel is made in order that the American people may benefit directly by the extremely low prices at which these meats will be sold. Because of the wide publicity to be given to the prices at which the government will sell these meats, the American people will at once recognize and appreciate the spirit of cooperation to lower the living costs rendered by every retailer who participates in the distribution of these commodities."

This surplus of meats offered by the War Department for sale amounts to around 78,000,000 pounds of beef and 50,000,000 pounds of bacon, all in cans. It is being sold at a loss, but at the highest wholesale market price, it is claimed, the department can get. The meat should be sold. It would be a crime to let it spoil. And the government needs the money it will bring; but it is apparent that the government, instead of making the disposal of the meat its main object at this time, is more largely interested in breaking the price of meats and thereby lowering food costs to consumers.

Compared with the enormous annual consumption of meats in the United States, this 75,000,000 pounds of beef is less than a half week's supply, and it could all be sold within a few weeks without injury to any industry; but the Farm Bureau Federation men look upon this attempt to break prices as a bad policy, which, while giving the consumers lower prices for a time, will have a psychological effect upon the market that will be disastrous to the cattle-raising industry and the farmers will be the losers.

When this phase of the matter, the effect of this low price advertising campaign upon the cattle raisers, was pointed out to the War Department officials having in charge the sale of

the meats, they assumed the attitude that as the farmers have already made so much out of the war, they could well afford to stand the loss which this big government drive against meat prices might cause them. It is only in line, however, with the policy of the administration to cut the cost of living for the city consumers regardless of its effects upon the farmers.

The Bureau of Public Roads, United States Department of Agriculture, has prepared a summary, in which it is shown that 2,885 projects have been filed with the bureau, of which 2,790 have been approved. These represent 27,796 miles of road improvement. Plans, specifications and estimates of 1,800 projects have been recommended for approval by the bureau, representing 14,000 miles of roads.

Figures compiled by Andrew P. Anderson, highway engineer of the Bureau of Public Roads, show that there were 7,565,446 motor vehicles of all types registered in the United States during 1918, an increase of twenty-three per cent over the previous year. As the total road mileage in the United States, outside incorporated towns and cities, is 2,475,000 miles, it will be seen that there are three motor vehicles for every mile of highway.

Some time ago the express companies asked the interstate commerce

commission to allow them to increase their rates twenty-five per cent. Now since their employes have made a demand for \$73,000,000 salary raise, the express companies are asking for a fifteen per cent advance on top of their former request, which if granted, would tax the American public another \$100,000,000.

The railroads are also asking for a second advance in rates, to cover the \$626,000,000 wage increase granted by the railroad labor board. If the roads are given the two increases asked for, it would mean an additional freight bill of \$1,355,379,675 for the people to pay, and the passenger fares would be advanced twenty per cent. Milk tariffs would be increased to the same level as freight rates, or an estimated increase of \$8,666,089 in the cost of transporting milk.

The coming retirement of Major William A. King on August 20, at the age of eighty-eight years, will remove from the United States Department of Agriculture one of its oldest employes. Major King was appointed chief of the seed testing division thirty-one years ago, and has long been in the library of the crop-reporting service. He is a native of western New York. Before coming to the Department of Agriculture he was the editor of Colman's Rural World. E. E. R.

Midwest Farm Bureaus Meet at M. A. C.

(Continued from page 138).

with a satisfactory live stock marketing scheme are baffling. He first emphasized the fact that the live stock business is centralized as soon as the live stock passes out of the farmer's hands. As a consequence competition is practically eliminated. There are only about two hundred and fifty large slaughterers of live stock in the country. Because of the magnitude of the business this results in a situation where these men can cooperate to the detriment of the farmers. The first big problem is therefore, to get competition in this end of the business.

A second problem is to do something for the consumer. He must be assured that the industry is going to deal squarely with him. To maintain the supply and to keep up the demand for live stock products are questions the solution of which will tax our biggest and best informed men.

A third difficulty in the handling of this product is that it is perishable. When stock is prepared for the market it must leave the producer and be added to the stocks in the hands of distributing agents.

Two Suggestions.

The first suggestion made by Professor Mumford was to inaugurate a program of intelligent production. At the present time the farmer or live stock man has no definite knowledge whatever as to the probable supply and demand of stock when his animals are ready for sale. These men produce regardless of the market situation. Farmers must get in a position where they can forecast more or less accurately the general marketing conditions. To do this, a live stock reporting service must be organized. Reports should be made at least every three months. Every agency having knowledge of the situation ought to be used in collecting this information so that the reports be as accurate as it is possible to make them.

The second suggestion is to get the stock to market in the least expensive and the best manner. Thus far the cooperative shipping association have

furnished a means for reducing expenses. Many of these, however, are improperly organized and managed. Our present need is for better trained men to take care of this work.

Professor Mumford fears that the rapid development of the live stock industry in South America is going to have a big influence upon the business in this country. Tariff legislation may be necessary to protect our live stock business.

Would Reduce Commission Fees.

Following Professor Mumford's talk and a discussion of the general program of the American Federation of Farm Bureaus, a motion that we request officials of the American Farm Bureau Federation to extend cooperative live stock marketing organizations to markets not now served by either extending existing organizations or by organizing new associations, was tabled, with the request that copies of the motion be sent to each State Farm Bureau association for consideration.

The conference passed a resolution to the effect that inasmuch as the cost of selling live stock by the cooperative method at Omaha is sixty-five per cent below the prevailing charges of commission men, the midwest State Farm Bureaus ask a conference with commission firms looking toward a reduction of the present commission rates.

To Form National Wool Pool.

After a discussion of the present wool pool situation by representatives of the various states, it was voted by the conference that President Howard, of the American Farm Bureau Federation be asked to take immediate steps looking towards the organization of the state wool marketing departments into one great national pool. Reports from these states indicated that the combined pools would amount to between 25,000,000 and 30,000,000 pounds. In the discussions much emphasis was placed on the "truth-in-fabric" bill now before congress. Growers are unanimous in their opinion that the passage of this bill is necessary to protect the sheep industry.

Favors the Great Lakes Tidewater Improvement.

Sentiment among the persons present at this conference was unqualifiedly in favor of the opening of the Great Lakes-to-Ocean transportation through the improvement of lake canals and the St. Lawrence river. Charles Craig, of Duluth, president of the Great Lakes Tidewater Association, declared in a carefully prepared address that seventy per cent of the food consumed in the United States, and almost one hundred per cent of the export food products are raised in the middle-west states. He stated further, that the money which the farmers of this district lose each year through inadequate transportation facilities will pay for rectifying the St. Lawrence river. By bringing the Atlantic Coast fifteen hundred miles nearer this great producing section, this project, the expense of which will be cared for by the water power developed, constitutes one of the greatest internal improvements ever undertaken, and means more to the agricultural development of the country than any other public enterprise.

Better Seed.

Mr. J. W. Nicolson, manager of the seed department of the Michigan State Farm Bureau, gave the delegates an idea of how the department proposes to aid Michigan farmers in securing better seed at a more reasonable price, and how the various State Farm Bureaus could render an even greater service to the individual members if all the State Farm Bureaus had well organized seed departments. The farmer has always left the production of seeds to the seedsmen and as a result he has simply taken what was offered him. It is impossible for the individual farmer to determine through experiment and observation the best seeds for him to grow. To do this work efficiently and effectively it is necessary to work through an organization.

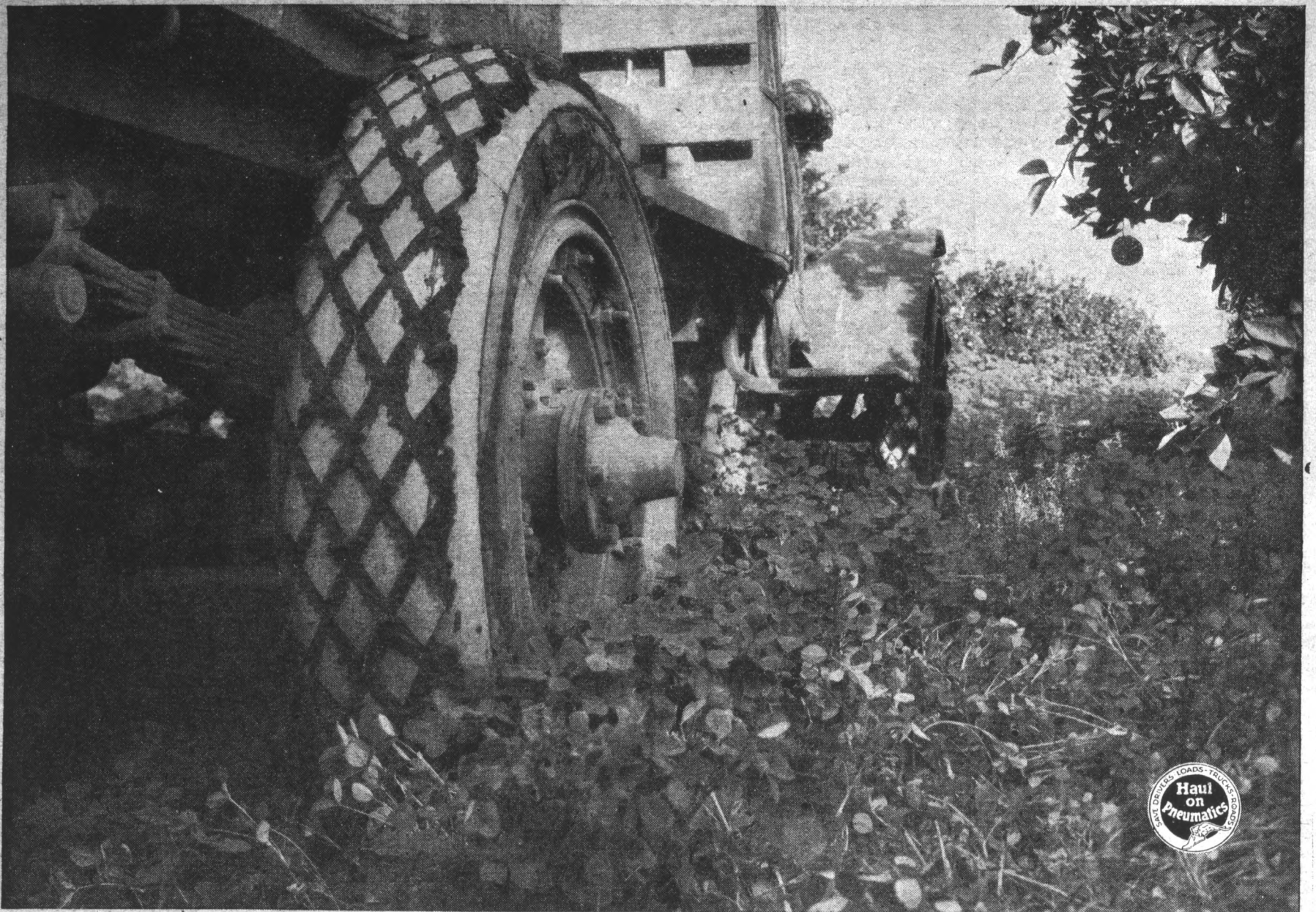
In the case of clover seed we have a product which is grown and used by farmers. The question arises as to why the seed should be allowed to go out

of the farmer's hands at all. Have speculators any reason to take toll in collecting and distributing this product and bringing it back to the farmer frequently in an adulterated form? Mr. Nicolson contends that it is perfectly feasible for the State Farm Bureaus to handle cloverseed to the direct benefit of the farmer members through the various organized groups.

The Michigan seed department deals with each county as a unit. This enables them to handle seeds on a carlot basis, in most instances, thus reducing cost. The state association is now in the market for timothy seed. If the farmers of Missouri who grow a surplus of this product, were organized, we could deal directly with them.

Another benefit to be derived by organization is that different groups of farmers will not be competing in the market for seeds. Last year the county agents of various counties in the northern states, and a few of the state associations were out in the field bidding against each other for Grimm alfalfa seed. This bidding forced the price to a much higher level than would have obtained had they all purchased through a single agency. The object of such an association is therefore, to protect the farmers and to keep prices of seeds reasonable.

Many other speakers addressed the conference. Dr. Kedzie, president of the Michigan Agricultural College, stated that the facilities of the College were available to the Farm Bureau organization for every service that it was possible and within the limits of the college to give. Dean Shaw declared the time had arrived when more exact information on the great farming business was needed. President Howard impressed the delegates with the constructive work that the American Federation of Farm Bureaus is doing. Wm. Eckhart, of the grain marketing department of the Illinois Agricultural Association, and Mr. Crandell, secretary of the South Dakota Association, reported on the work being done by the United Grain Growers, Ltd., of Canada, and the Canadian Council of Agriculture.



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"Your Goodyear Cord Tires on our truck go right through the plowed ground of our citrus groves, permitting loading at the trees, and they protect the fruit, particularly the lemons, which are very delicate, by smoothing the haul to the packing house. They save labor, fruit, time."—H. J. Kelly, Packing House Manager, Charles C. Chapman Ranch, Fullerton, California

IN rural hauling like this and in farm duty radically different, the use of Goodyear Cord Tires on trucks has been found productive of a variety of important advantages.

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CORD TIRES

GENUINE ASPIRIN



Name "Bayer" identifies genuine Aspirin introduced to physicians in 1900. Insist on unbroken packages of

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is as profitable as grain growing. Successes as wonderful as those from growing wheat, oats, barley, and flax have been made in raising Horses, Cattle, Sheep and Hogs. Bright, sunny climate, nutritious grasses, good water, enormous fodder crops—these spell success to the farmer and stock raiser. And remember, you can buy on easy terms

Farm Land at \$15 to \$30 an Acre

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Order more than one pair at our low price. Pay Only \$3.69 On Arrival Postage Prepaid. Their soft leather uppers and pleasing last are bound to delight you. Cushion linings, flexible outsoles, and jar-proof rubber heels make walking a pleasure. A shoe every woman will delight in wearing, a relief to tired, aching feet.

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Send size marked below, postpaid. My money back if I want it. I take no risk.

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Mention The Michigan Farmer When Writing Advertisers

Shall We Consolidate Our Schools?

By Gertrude R. Hansen

IN THESE DAYS of "better" things—"better babies," "better crops," "better stock," etc., should we not put a little more thought on the vital subject of "better schools?"

Let us look over a few of the many reasons for a change in our present rural school system.

E. T. Meredith of Iowa says: "The curse of our educational system is the school district." He contends that the schools should be taken out of the hands of politics and that a county board manage all the rural schools in the county and appoint a county superintendent.

One thing we know—the one room rural school must give way to something better. Its day is already past and all over the country complaint is made of the "district" school system. According to the findings of government experts about half of the rural schools of the United States are now taught by inexperienced teachers, most of whom are boys and girls of no training and very little educational preparation. This is mainly caused by the rush of young men and women to the large cities, partly induced by the low wages given to school teachers and the extremely high wages paid for other work in the cities. The State of Iowa was short 100 teachers last fall, and as a result, one-half of the schools in that State have already adopted a system of consolidation. In

boys and girls who were eager to advance farther than the eighth grade but could not be spared from home to attend the nearest high school. Some parents have sacrificed much and have sent their children away to school or have moved to town themselves to give their children educational privileges. That is one place where the district school falls short. One would think it needless to mention more of the limitations of the one-room rural school. All wide-awake citizens may see for themselves if they have not already seen. One mother said not long ago: "The immorality in our school is sickening."

There is a way to remedy all these defects and thinking parents agree with all our prominent educators that that way is consolidation, making the township, or, better yet, the county, the unit of organization. Let me say here that there have been and still are some good one-room schools with splendid teachers at their head who have done much for the pupils and the community, but these schools are rare.

Our state already has four different laws by which schools may be consolidated. These are (1) the Graded School Act; (2) The Township Unit Act for the Upper Peninsula; (3) The General Township Unit Act, and (4) The Rural Agricultural School Act.

The graded school act is especially

the same purposes as in Class A schools. The instructors are a principal hired for twelve months of the year and two or more teachers employed for ten months. Notice that the principal in Class B schools is on duty twelve months of the year. In the two months that school is not in session he oversees boys' and girls' club work and assist in farm demonstration work, and is also ready to give assistance and advice to the farmers of the community. These schools are practically experiment stations for the farming community. In one section of Houghton county, where a rural agricultural school was organized, the methods of farming were practically revolutionized in less than two years. The State gives annually at least \$600 to schools of Class A and at least \$900 annually to schools of Class B, besides \$200 per year for each vehicle used in carrying pupils to and from school. According to the State Act all the buildings must be modern, properly heated, ventilated and lighted, and have proper equipment for teaching agriculture, manual training and home economics. The plans for buildings must be approved by the State Superintendent of Public Instruction. The State Department of Public Instruction has issued plans for buildings which may be used by any districts consolidating if they wish.

The teachers of home economics, agriculture and manual training must have completed a course in the subject they teach in a college or State Normal. The principals must hold a state life certificate and also possess other special qualifications. In the last year eight rural agricultural schools have been formed in lower Michigan, and about two years ago one was organized in Houghton County. The greater part of the schools of Upper Michigan are consolidated or centralized under the township unit system.

Some of the advantages of the consolidated schools are shown by the results where they are established.

We know that our rural schools generally have not created a greater love for the farm or country life and this is one of the greatest aims of the consolidated school. Not only in agriculture do the pupils find themselves on familiar ground but a practical application is found in language, arithmetic, geography, etc., to their home surroundings and daily life. The large classes in these schools create a spirit of competition—there are very few laggards. Large classes always possess more interest than a class of one or two or three. The size of the grounds, aside from agricultural work, give good facilities for up-to-date playground and athletics. The domestic science teacher has particular oversight of the personal welfare and morals of the pupils. The superior education and special training for rural work is a great advantage over the present system in most of lower Michigan. All varieties of boys' and girls' clubs are fostered by the rural agricultural school, including athletic, literary and debating clubs. Not only the school itself is put on a higher standing but the entire community profits by it. There is a public pride in a centralized community that is not found in the little one-room district. We find that the better school brings in its wake, better farms, better roads and better homes, higher value of land and a much higher moral sentiment. The rural social problem is also solved by the centralized school. It is a center for all kinds of com-

(Continued on page 161).



In the Consolidated Schools, there is Opportunity to Educate the Boys and Girls Towards, Rather than Away from the Farm.

our own State of Michigan we were 500 teachers short, and eight new consolidated schools were formed, and in most of our rural schools we are employing those inexperienced and untrained boys and girls above mentioned. Not only are inefficient teachers a cause of dissatisfaction but poorly equipped buildings in poor repair, unsanitary conditions and insufficient water supply, bad roads causing a low percentage of attendance, and many other things. Insufficient supervision of pupils while at school is one of the most deplorable of our rural conditions. Self-respecting parents who wish their children to grow up with healthy morals and any decency at all dread to send their children to the average country or small village school. A prominent club woman of this State who has studied rural school conditions makes the statement that "it is impossible for children in the average rural school to be decent." This is certainly partly the fault of the teacher but not entirely. There are many faults of the one room rural school that could be remedied if the people insisted upon it, but sometimes it almost seems as if the majority of people are either blind or don't care.

Nearly everyone who reads this can name at least one and often several

for the use of cities and villages but has been adapted to the needs of some of the more populous rural districts, as in Berrien, Van Buren and some other counties. The general township unit act is practically the same in effect as the graded school act.

The Rural Agricultural School Act seems at present the one best adapted to the needs of our rural districts in lower Michigan. The Michigan State Grange at their last annual meeting in December, 1919, endorsed this plan of consolidation, and it is also approved by our State Superintendent of Public Instruction.

In the Rural Agricultural School, Manual Training, Domestic Science and Agriculture must be a part of the course of study. Now the interesting part of this last named act is that the State gives financial aid toward the maintenance of such schools. There are two classes of schools provided for—Class A and Class B. Class A consists of schools having less than 20 acres of land used partly for agricultural demonstration and some for playgrounds and athletics. The instructors are a principal and two or more teachers employed for nine months of the year.

Class B consists of schools having more than 20 acres of land used for

Columbia Grafonola

"May we play this one, Mother?"

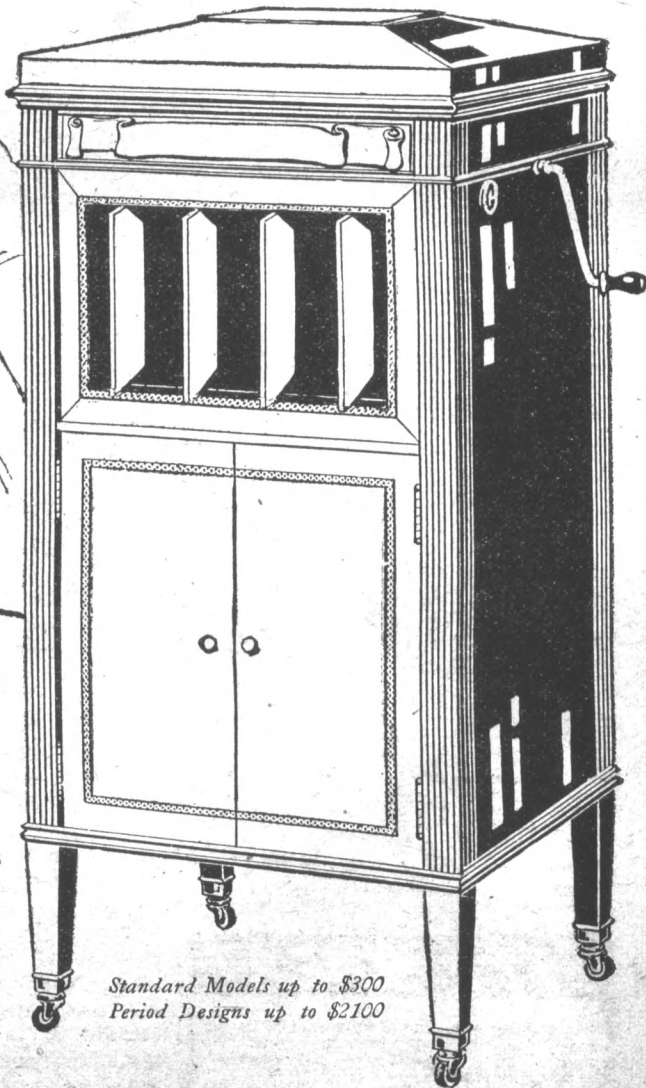
Fortunate are the children in homes made musical by the Columbia Grafonola. An honest liking for good music comes to them naturally, and quite without conscious effort or teaching.

You need not worry over the children spoiling your valuable records. The Non Set Automatic Stop, an exclusive Columbia feature, is a big advantage in this respect. There's nothing to move or set or measure. Just start the Grafonola and it plays and stops itself.

To make a good record great, play it on the Columbia Grafonola.

Get the New Columbia Novelty Record Booklet. Every Columbia dealer has it.

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Standard Models up to \$300
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Your Protection

The Combination Farmer and Business Man

Some of the keenest business men in the country today are our hard-working farmers—toilers who cherish the possessions and constructively build holdings of great value. Men who study production and distribution as interestedly as the man behind the desk in our busiest cities.

And—

this same type of farmer realizes that the great bulk of his success has been the hard work of years of sacrifice and management and he is naturally particularly anxious to protect his house, goods, barns, and other buildings from fires that authority says destroy millions of dollars worth of agricultural property each year. He is business man enough to see the urgent necessity for real fire protection and for 100% protection at that. He has discovered through inventory and experience that unless he did double his insurance, he would be 50% UNDER-INSURED and liable to stand a big loss. Have YOU taken the business farmers' wise precaution?

The Peninsular Way

offers the thinking farmer HIS CHANCE to FULLY PROTECT his holdings. This Big Michigan Fire Insurance Company protects the farmer's possessions on the same basis that it protects city property, with buildings rated according to locations and all protective improvements duly considered.

Good Common-Sense Judgement

A Peninsular Policy, in addition to any present policy now carried, completely fortifies the farmer from any fire hazard and shows excellent business judgment. This company also protects your growing crops against WIND and HAIL.

Drop a line to our Farm Department TODAY and complete information will be sent you without obligating you in any way. It might be costly to wait.

PENINSULAR FIRE INSURANCE CO.,
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When Something Is Wrong With Your Comfort

—when nervousness, indigestion, biliousness or some other upset makes you think you are not eating or drinking the right thing

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Postum Cereal

This delicious drink with its coffee-like flavor, suits coffee drinkers. Its value to health soon shows, and its economy is so apparent under use that one quickly realizes.

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Battle Creek, Michigan

When Writing to Advertisers Please Mention
The Michigan Farmer

Our Service Department

EFFECT OF CEDAR ON FRUIT.

Will a red cedar tree have any effect on apples? Does white pine and white cedar have any effect on currants?

T. J. S.

Red cedar trees do have a seriously detrimental effect upon apples because the cedar trees harbor the apple rust fungus in one stage of its life cycle. It is poor orcharding policy to plant windbreaks of junipers or to allow the tree to grow near apple orchards.

To date one cannot point to actual losses which have occurred from this cause in Michigan. The true apple rust is more or less of a curiosity with us, and the red cedar as a roadside tree is extremely uncommon as compared with the conditions in other states. But we must be aware of the losses which this fungus has caused in other states, such as Wisconsin, Ohio, Indiana, Illinois and Nebraska. We should be guided by the experience of those states. Exactly as the red cedar became a common tree growing in waste places, about dooryards, and along fences, so the apple rust developed and became a serious pest. The recent experience in Ohio is well worthy of careful consideration. In the last fifteen years the red cedar has been spreading in Ohio and is now doing serious damage in that state. Expensive and time-consuming eradication measures aimed at the red cedar or juniper tree are now necessary.

Not all apples are equally susceptible to injury. York Imperial, Rome, Wealthy, Jonathan and Ben Davis are all seriously injured, while Baldwin, Grimes, Northern Spy and Maiden Blush are fairly resistant.

If rust develops in Michigan as a result of red cedars we have adequate laws to bring about the control of the pest, but we should not add to the burden of fruit growing by planting the tree. It is doubtful if the various horticultural varieties of juniper used for ornament are subject to the rust, but certainly the red cedar tree is. Birds carrying the seeds will spread the tree and in a few years our waste lands could become populated with the red cedar if fruit growers permitted the wholesale introduction.

White pine harbors a similar rust which passes part of its life cycle on currants and gooseberries. Fortunately Michigan is as yet free from infestation by the white pine blister rust and growing of either white pine or the bush fruits is not interfered with. In the New England states it is a serious question whether the farmers will grow currants and gooseberries or white pine. Currants and gooseberries are under restrictions governing movement from nurseries, but they are perfectly safe to grow in any part of the state so far as we know at present.

The white cedar is safe to grow anywhere. It does not harbor any parasites dangerous to fruits or other crops.

These two questions deal with a most fascinating phenomenon, called by plant pathologists, the Heterocism of the Rusts. In short, the rust fungi in many cases require two different plants as hosts on which to complete their life cycle. Farmers centuries ago noticed that wheat and other grains were injured by rust when a barberry bush grew near. Scientists at a much later date found the explanation of this by finding the rust of wheat and other cereals produced special kinds of fruiting bodies on the barberry. The observation of practical men was correct and the old laws of

France, Denmark and Massachusetts had proper foundation.

This discovery of the relationship of grains and the barberry, through the dangerous rust which was harbored, opened the way for a study of other relationships of the same sort and today we know of some five hundred of such biological partnerships. Scientific agriculture seeks to utilize this dependence of the rust upon two hosts to complete its life cycle to prevent losses, for it is usually possible to exclude or control the distribution of one host and thus protect the other. The clearing of wild gooseberries from the vicinities of white pine will protect a young pine plantation and similarly the clearing away of pine from near currants will control the rust as it develops on the currants. The plan of preventing rust outbreaks of serious type by the eradication of the barberry is well known to all.

It is characteristic of modern agricultural science that it strives to prevent losses by attacking the parasites at the vulnerable points.

G. H. COONS.

BUTTER WON'T COME.

I have two good young cows from which we make butter for our own use and for some time past, and until recently we could get butter from our barrel-churn in ten to fifteen minutes' time, but the last three churnings have taken from three-quarters of an hour to two hours' time. My cows have good pasture, they are both in good condition and we feed them a mixture of middlings and bran twice a day. Can you assign the cause why it should take so much longer to churn at this time than it did earlier in the season?

Alcona Co.

C. Y.

I am inclined to think the whole question hinges on the way you are handling your cream. Cream must be properly cared for and properly ripened in order to have the butter come quickly. As soon as you skim the milk, cool the cream and set aside in a cool place, until you want to churn it. The next time you skim, cool this before mixing it with cold cream and continue this until you have a sufficient amount of cream for churning. Then bring your cream into a warm temperature, seventy degrees, and stir occasionally until it is all warmed up to seventy degrees, this will probably take twenty-four hours. The cream then, of course, will become sour or ripened and when it is thoroughly ripened then cool it again down to sixty degrees, if possible, and I believe you will have no trouble in having the butter come in a reasonable time.

C. C. L.

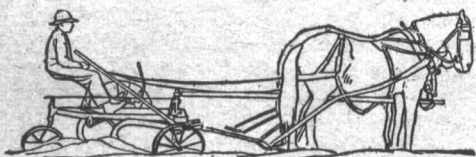
APPLYING LIME.

I have twenty acres of oat ground to be plowed and sowed to wheat this fall. I want to lime this soil, as it is acid. Can you tell me the best way to apply it to the soil before plowing, whether directly to the ground before plowing, on the furrow, or after dragging. What kind of a machine seems to be in the lead for distributing lime? Some say an end-gate wagon distributor is the best. How much lime should be applied per acre to insure a good catch of clover?—J. B.

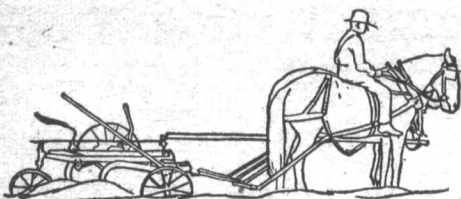
Apply the lime after plowing and work it in well. Use from one and a half to three tons per acre. It is usually best to drag the ground once before liming, as the spreader will work easier. You will find as a rule that the regular two-wheeled lime and fertilizer distributors are used most. The end-gate distributor is not used so much, but is likely satisfactory. D. W.

MOLINE

The Universal Tractor

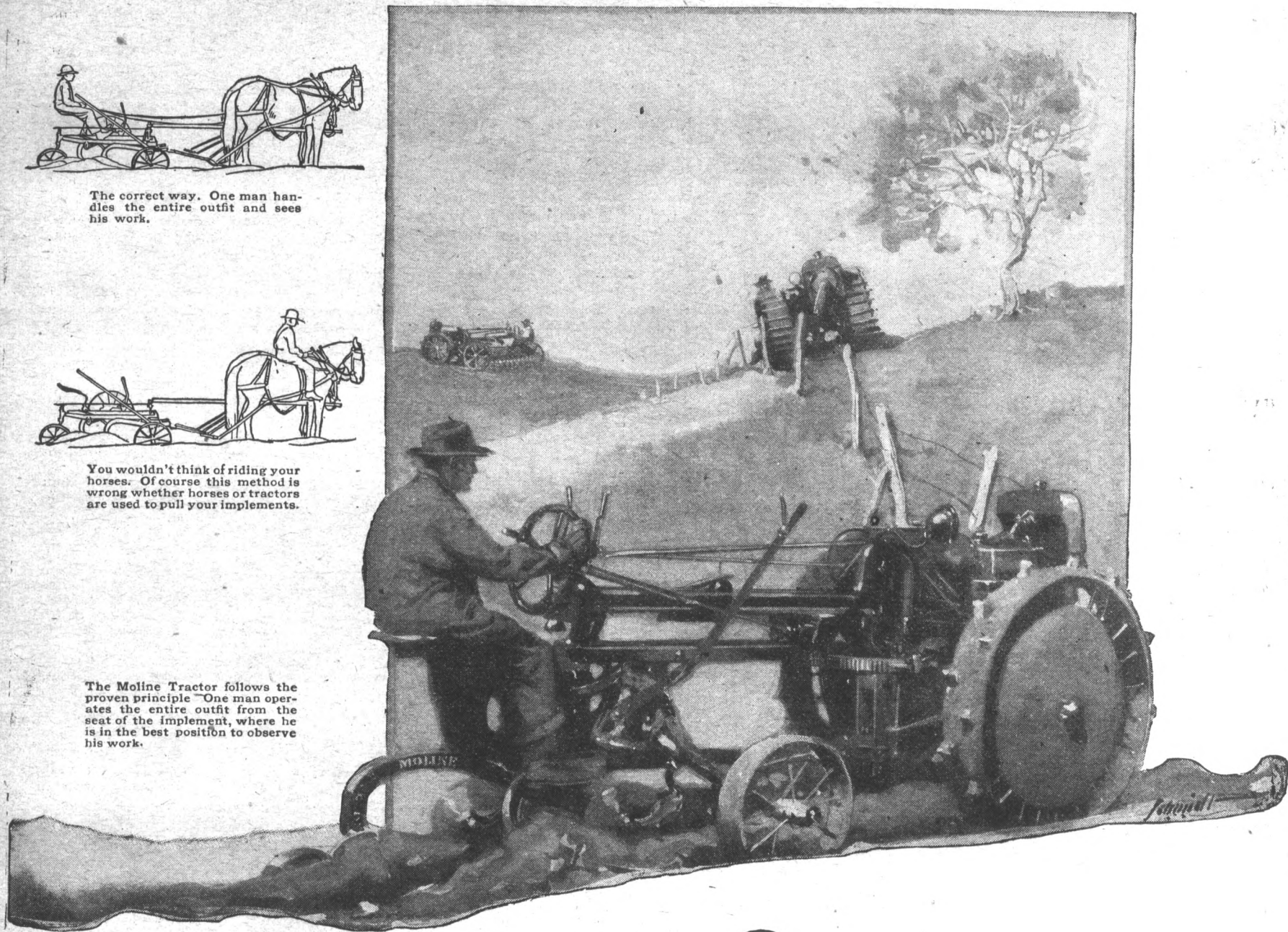


The correct way. One man handles the entire outfit and sees his work.



You wouldn't think of riding your horses. Of course this method is wrong whether horses or tractors are used to pull your implements.

The Moline Tractor follows the proven principle "One man operates the entire outfit from the seat of the implement, where he is in the best position to observe his work."



In a 10-hour day one man and a Moline Tractor can plow from 7 to 9 acres; disc from 25 to 35 acres; seed from 25 to 35 acres; mow from 25 to 40 acres; cultivate from 12 to 20 acres; and harvest from 25 to 40 acres. In addition the machine will do a great variety of other work and all ordinary belt jobs.

Compare these results with those of ordinary methods. In many cases the Moline enables one man to do at least twice as much work. These facts are borne out by the results obtained by Moline owners.

Moline owners in 37 states say that the Moline Tractor saves an average of one man per farm, as well as five horses, because it does all field work, including cultivating.

The Moline Tractor increases production by enabling one man to do more work, and decreases the cost of production by saving help and horses.

Profits of from \$500 to \$2200 a year, from the Moline Tractor alone, are being reported by Moline owners from all sections of the country.

MOLINE PLOW COMPANY, MOLINE, ILLINOIS

Willard STORAGE BATTERY



This trade-mark is branded in red on one side of the Still Better Willard—the only storage battery with Threaded Rubber Insulation.

Remember!

That in the ordinary storage battery the insulation is the weakest link.

That in the ordinary battery both plates and insulation wear out.

That with the ordinary battery the big expense and risk come when you have to tear down the battery and put in new insulation—perhaps with the result that you ruin the plates.

That in the ordinary battery, the insulation between plates carbonizes, causing leakage of current; and perforates, causing short circuits and permitting "treeing."

That the ordinary battery has to be shipped and stored wet or partly wet—aging and deterioration are almost sure to take place.

1 That in the *Still Better Willard* the Threaded Rubber Insulation is the *longest lived* part of the battery.

2 That in the *Still Better Willard* the wear is *cut in halves*—for Threaded Rubber Insulation does not wear out; it is not affected by the solution.

3 That with the *Still Better Willard* the Threaded Rubber Insulation prevents this expense and risk.

4 That with Threaded Rubber Insulation these faults, which greatly reduce the efficiency of the battery, *cannot occur*.

5 That the *Still Better Willard* with Threaded Rubber Insulation is shipped "*bone-dry*," not a drop of moisture in it. It begins service in your car as fresh as when built.

Willard Service.

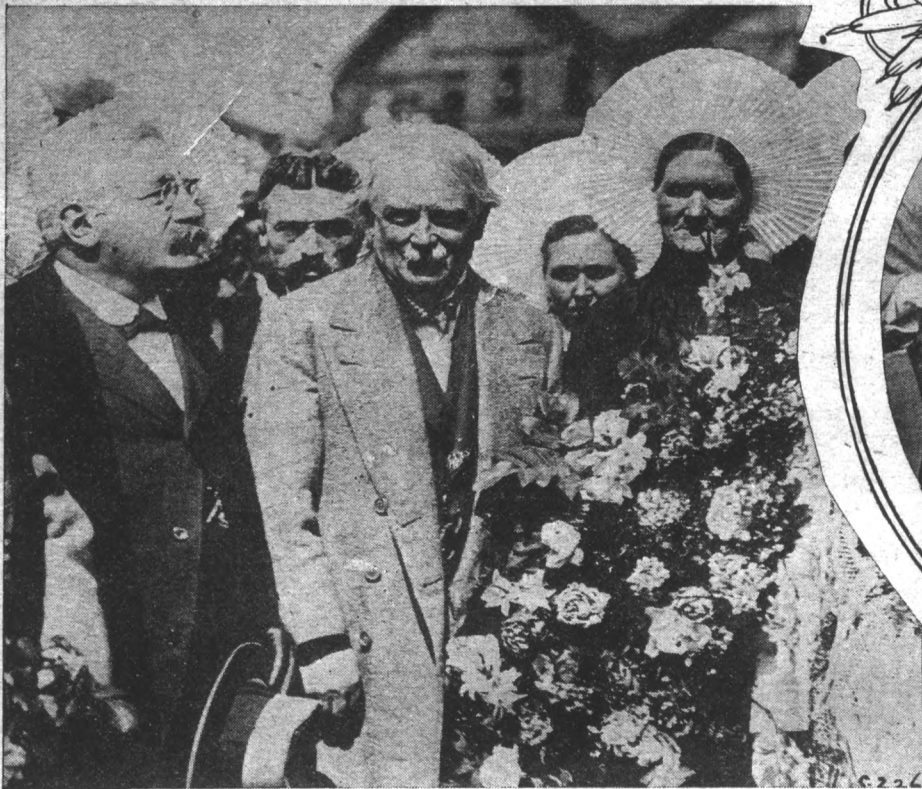
Of the 191 passenger cars and trucks using Willard Batteries as standard equipment, 138 have adopted the *Still Better Willard* with Threaded Rubber Insulation.

138 Manufacturers Using Threaded Rubber Insulation

Acason	Giant	Parker
Acme	Glide	Peerless
All American	Great Western	Peugeot
Allis-Chalmers	Hahn	Phianna
American	H C S	Pierce-Arrow
LaFrance	Hurlburt	Premier
Apex	Hawkeye	Preston
*Apperson	Haynes	Ranier
Armleder	Henney	*Reo
Atterbury	Highway	Republic
*Auburn	Holmes	ReVer
Austin	Holt	Riddle
Bacon	Hupmobile	Robinson
Bell	Indiana	Rock Falls
Belmont	International	R & V Knight
Bessemer	(I. H. C.)	Rowe
Betz	*Kissel	Sandow
Biddle	Kochler	Sayers
Brockway	Lancia	Seagrave
Buffalo	Lexington	Selden
*Buick	*Liberty	Service
Cannonball	Luverne	Shelby
Capitol	Madison	Signal
*Case	Marmon	Singer
*Chevrolet	Menominee	Southern
Clydesdale	Mercer	Standard 8
Cole	Mercury	Standard
Collier	Meteor	Stanley
Colonial	(Phila.)	Studebaker
Comet	M H C	Stutz
Commerce	*Mitchell	Sunbeam
Commodore	Murray	Tarkington
Cunningham	McFarlan	Tiffin
Daniels	*McLaughlin	Titan
Dart	Napoleon	Tow Motor
Dependable	Nash	Transport
Diamond T	Nelson	Traylor
Dixie Flyer	Nelson &	Ultimate
Dodge	LeMoon	Velie
Dorris	Noble	Vulcan
Fargo	Northway	Ward
Fergus	Ogren	LaFrance
Ferris	Old Hickory	*Westcott
F W D	*Olds	White
Franklin	Oneida	Wilson
Fulton	Oshkosh	Winther
Garford	*Paige	Winton
G M C		Wolverine

*For Export

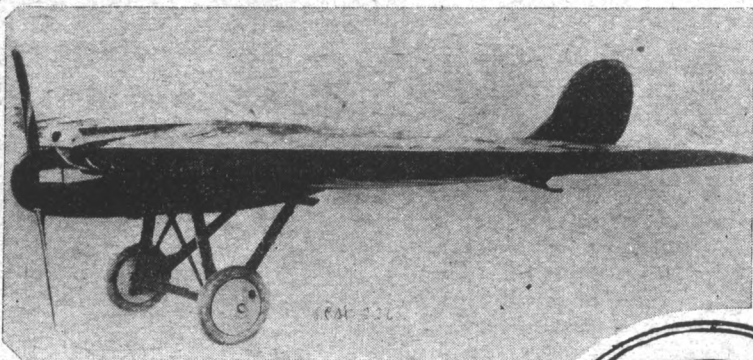
WORLD EVENTS IN PICTURES



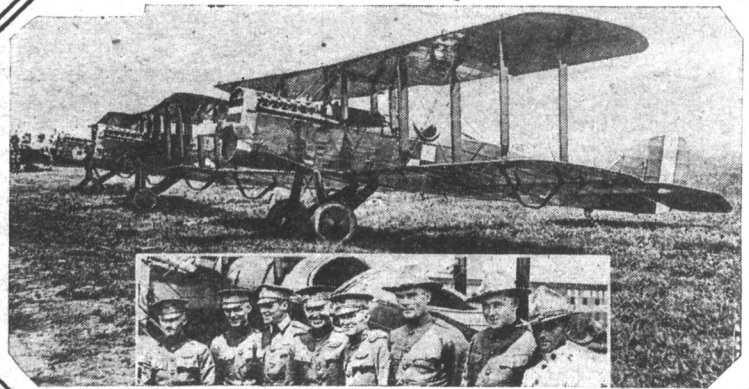
Famous fisherwomen of Boulogne present French and English premiers a huge bouquet.



W. M. Tilden, of Philadelphia, enjoys a cup of tea after winning highest tennis honors in England.



America's wonderful new mystery plane has forty square feet more wing surface than our best army planes, weighs less than half as much and can climb a mile in two and a half minutes.



Planes and men who are ready to start on the long flight from Long Island to Nome, Alaska.



Herr Fehrenbach, German chancellor and head of the German delegation at the Spa, Belgium, to confer on the fulfillment of the terms of the peace treaty.



Prominent English society folks watching recent international cup races from the deck of Sir Thomas Lipton's private yacht, Victoria.



It is rumored that one of the big league teams has offered \$25,000 for the services of P. Mooney, wizard pitcher of the famous House of David baseball team.

THE VALLEY OF THE GIANTS

A ROMANCE OF THE REDWOODS

By Peter B. Kyne

CHAPTER XXI.

Upon his return from the office that night, Bryce Cardigan found his father had left his bed and was seated before the library fire.

"Feeling a whole lot better to-day, eh, pal?" his son queried.

John Cardigan smiled. "Yes, son," he replied plaintively. "I guess I'll manage to live till next spring."

"Oh, I knew there was nothing wrong with you, John Cardigan, that a healthy check wouldn't cure. Pennington rather jolted you, though, didn't he?"

"He did, Bryce. It was jolt enough to be forced to sell that quarter—I never expected we'd have to do it; but when I realize that it was a case of sacrificing you or my Giants, of course you won. And I didn't feel so badly about it as I used to think I would. I suppose that's because there is a certain morbid pleasure in a real sacrifice for those we love. And I never doubted but that Pennington would snap up the property the instant I offered to sell. Hence his refusal—in the face of our desperate need for money to carry on until conditions improve—almost floored your old man."

"Well, we can afford to draw our breath now, and that gives us a fighting chance, partner. And right after dinner you and I will sit down and start brewing a pot of powerful bad medicine for the Colonel."

"Son, I've been sitting here simmering all day." There was a note of the old dominant fighting John Cardigan in his voice now. "And it has occurred to me that even if I must sit on the bench and root, I've not reached the point where my years have begun to affect my thinking ability." He touched his leonine head. "I'm as right as a fox upstairs, Bryce."

"Right-o, Johnny. We'll buck the line together. After dinner you trot your plan of campaign and I'll trot out mine; then we'll tear them apart, select the best pieces of each and weld them into a perfect whole."

Accordingly, dinner disposed of, father and son sat down together to prepare the plan of campaign. For the space of several minutes a silence settled between them, the while they puffed meditatively upon their cigars. Then the old man spoke.

"We'll have to fight him in the dark."

"Why?"

"Because if Pennington knows, or even suspects the identity of the man who is going to parallel his logging railroad, he will throw all the weight

of his truly capable mind, his wealth and his ruthlessness against you—and you will be smashed. To beat that man, you must do more than spend money. You will have to outthink him, outwork him, outgame him, and when eventually you have won, you'll know you've been in the fight of your career. You have one advantage starting out. The Colonel doesn't think you have the courage to parallel his road in the first place; in the second place, he knows you haven't the money; and in the third place he is morally certain you cannot borrow it, because you haven't any collateral to secure your note.

"We are mortgaged now to the limit, and our floating indebtedness is very large; on the face of things and according to the Colonel's very correct inside information, we're helpless; and unless the lumber-market stiffens very materially this year, by the time our hauling-contract with Pennington's road expires, we'll be back where we were yesterday before we sold the Giants. Pennington regards that hundred thousand as get-away money for us. So, all things considered, the Colonel will be slow to suspect us of having an ace in the hole; but by jinks we have it, and we're going to play it."

"No," said Bryce, "we're going to let somebody else play it for us. The point you make—to wit, that we must remain absolutely in the background—is well taken."

"Very well," agreed the old man. "Now let us proceed to the next point. You must engage some reliable engineer to look over the proposed route of the road and give us an estimate of the cost of construction."

"For the sake of argument we will consider that done, and that the estimate comes within the scope of the sum Gregory is willing to advance us."

"Your third step, then, will be to incorporate a railroad company, under the laws of the State of California."

"I think I'll favour the fair State of New Jersey with our trade," Bryce suggested dryly. "I notice that when Pennington bought out the Henderson interests and reorganized that property he incorporated the Laguna Grande Lumber Company under the laws of the State of New Jersey, home of the trusts. There must be some advantage connected with such a course."

"Have it your own way, boy. What's good enough for the Colonel is good enough for us. Now, then, you are going to incorporate a company to build a road twelve miles long—and a private road, at that. That would be a fatal step. Pennington would know somebody was going to build a logging-road, and regardless of who the builders were, he would have to fight them in self protection. How are you going to cover your trail, my son?"

Bryce pondered. "I will, to begin, have a dummy board of directors. Also, my road cannot be private; it must be a common carrier, and that's where the shoe pinches. Common carriers are subject to the rules and regulations of the Railroad Commission."

"They are wise and just rules," commented the old man, "expensive to obey at times, but quite necessary. We can obey and still be happy. Objection overruled."

"Well, then, since we must be a common carrier, we might as well carry our deception still further and incorporate for the purpose of building a road from Sequoia to Grant's Pass, Oregon, there to connect with the Southern Pacific."

John Cardigan smiled. "The old dream revived, eh? Well, the old jokes always bring a hearty laugh. People will laugh at your company, because folks up this way realize that the construction cost of such a road is prohibitive, not to mention the cost of maintenance, which would be tremendous and out of all proportion to the freight area tapped."

"Well, since we're not going to build more than twelve miles of our road during the next year, and probably not more than ten miles additional during the present century, we won't worry over it. It doesn't cost a cent more to procure a franchise to build a road from here to the moon. If we fail to build to Grant's Pass, our franchise to build the uncompleted portion of the road merely lapses and we hold only that portion which we have constructed. That's all we want to hold."

"How about rights of way?"

"They will cost us very little, if anything. Most of the landowners along the proposed route will give us rights of way free gratis and for nothing, just to encourage the lunatics. Without a railroad the land is value-

less; and as a common carrier they know we can condemn rights of way capriciously withheld—something we cannot do as a private road. Moreover, deeds to rights of way can be drawn with a time-limit, after which they revert to the original owners."

"Good strategy, my son! And certainly as a common carrier we will be welcomed by the farmers and cattlemen along our short line. We can handle their freight without much annoyance and perhaps at a slight profit."

"Well, that about completes the rough outline of our plan. The next thing to do is to start and keep right on moving, for as old Omar has it, 'The bird of time hath but a little way to flutter,' and the birdshot is catching up with him. We have a year in which to build our road; if we do not hurry, the mill will have to shut down for lack of logs, when our contract with Pennington expires."

"You forget the manager for our new corporation—the vice-president and general manager. The man we engage must be the fastest and most convincing talker in California; not only must he be able to tell a lie with a straight face, but he must be able to believe his own lies. And he must talk in millions, look millions, and act as if a million dollars were equivalent in value to a redwood stump. In addition, he must be a man of real ability and a person you can trust implicitly."

"I have the very man you mention. His name is Buck Ogilvy and only this very day I received a letter from him begging me for a small loan. I have Buck on ice in a fifth-class San Francisco hotel."

"Tell me about him, Bryce."

"Don't have to. You've just told me about him. However, I'll read you his letter. I claim there is more character in a letter than in a face."

Here Bryce read aloud:

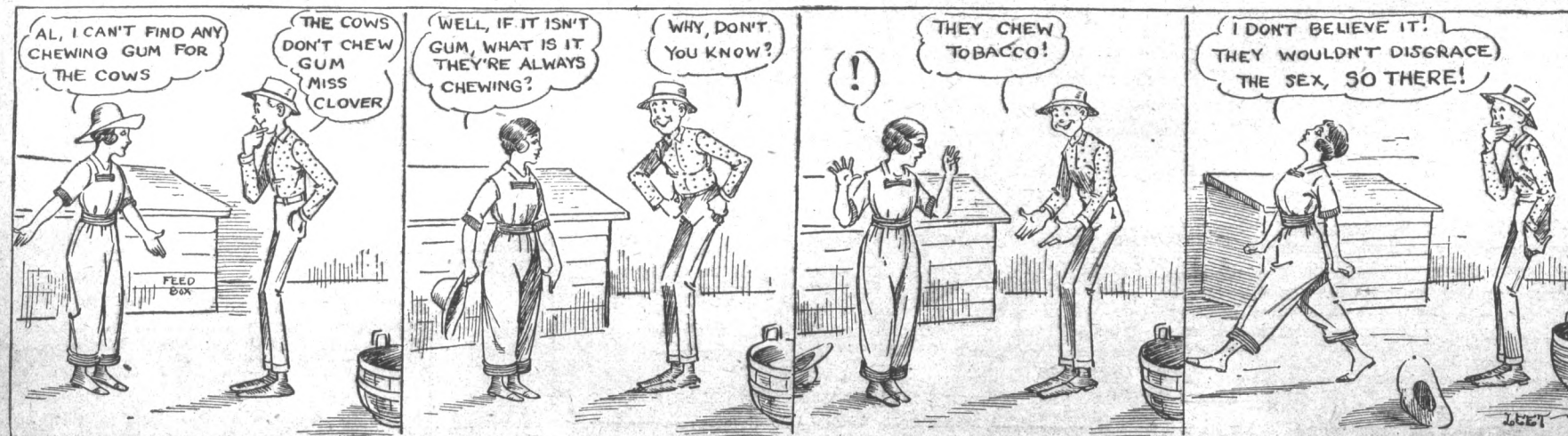
Golden Gate Hotel
Rooms fifty cents—and up.
San Francisco, California,
August fifteenth, 1916.

My Dear Cardigan: Hark to the voice of one crying in the wilderness; then picture to yourself the unlovely spectacle of a strong man crying.

Let us assume that you have duly considered. Now wind up your wrist and send me a rectangular piece of white, blue, green, or pink paper bearing in the lower right-hand corner, in your clear, bold chirography, the magic words "Bryce Cardigan"—with the little up-and-down hook and flourish which identifies your signature given in your serious moods and lends value to otherwise worthless paper. Five dollars would make me chirk up; ten would start a slight

AL ACRES—Al says "The Cows Don't Chew Gum, They Chew Tobacco."

—By Frank R. Leet



smile; twenty would put a beam in mine eye; fifty would cause me to utter shrill cries of unadulterated joy; and a hundred would inspire me to actions like unto those of a whirling dervish.

I am so flat busted my arches make hollow sounds as I tread the hard pavements of a great city, seeking a job. Pausing on the brink of despair, that destiny which shapes our ends inspired me to think of old times and happier days and particularly of that pink-and-white midget of a girl who tended the soda-fountain just back of the railroad station at Princeton. You stole that damsel from me, and I never thanked you. Then I remembered you were a timber-king with a kind heart and that you lived somewhere in California; so I looked in the telephone book and found the address of the San Francisco office of the Cardigan Redwood Lumber Company. You have a mean man in charge there. I called on him, told him I was an old college pal of yours, and tried to borrow a dollar. He spurned me with contempt—so much of it, in fact, that I imagine you have a number of such friends. While he was abusing me, I stole from his desk the stamped envelope which bears to you these tidings of great woe; and while awaiting your reply, be advised that I subsist on the bitter cud of reflection, fresh air, and water, all of which, thank God, cost nothing.

My tale is soon told. When you knew me last, I was a prosperous young contractor. Alas! I put all my eggs in one basket and produced an omelet. Took a contract to build a railroad in Honduras. Honduras got to fighting with Nicaragua; the government I had done business with went out of business; and the Nicaraguan army recruited all my labourers and mounted them on my mules and horses, swiped my grub, and told me to go home. I went. Why stay? Moreover, I had an incentive consisting of about an inch of bayonet—fortunately not applied in a vital spot—which accelerated rather than decreased my speed.

Hurry, my dear Cardigan. Tempest fidgets; remember Moriarty—which, if you still remember your Latin, means: "Time flies. Remember tomorrow!" I finished eating my overcoat the day before yesterday.

Make it a hundred, and God will bless you. When I get it, I'll come to Sequoia and kiss you. I'll pay you back sometime—of course.

Wistfully thine—BUCK OGILVY.

P. S.—Delays are dangerous, and procrastination is the thief of time.

John Cardigan chuckled. "I'd take Buck Ogilvy, Bryce. He'll do. Is he honest?"

"I don't know. He was, the last time I saw him."

"Then wire him a hundred. Don't wait for the mail. The steamer that carries your letter might be wrecked and your friend Ogilvy forced to steal."

"I have already wired him the hundred. In all probability he is now out whirling like a dervish."

"Good boy! Well, I think we've planned sufficient for the present, Bryce. You'd better leave for San Francisco to-morrow and close your deal with Gregory. Arrange with him to leave his own representative with Ogilvy to keep tab on the job, check the bills, and pay them as they fall due; and above all things, insist that Gregory shall place the money in a San Francisco bank, subject to the joint check of his representative and ours. Hire a good lawyer to draw up the agreement between you; be sure you're right, the go head—full speed. When you return to Sequoia, I'll have a few more points to give you. I'll mull them over in the meantime."

CHAPTER XXII.

WHEN Bryce Cardigan walked down the gangplank at the steamship-dock in San Francisco, the first face he saw among the waiting crowd was Buck Ogilvy's. Mr. Ogilvy wore his overcoat and a joyous smile, proving that in so far as he was concerned all was well with the world; he pressed forward and thrust forth a great speckled paw for Bryce to shake. Bryce ignored it.

"Why, don't you remember me?" Ogilvy demanded. "I'm Buck Ogilvy."

(Continued on next page.)

Exton, C-316. An eight-room house of the Colonial expression designed for the Curtis Company by Trowbridge & Ackerman, finished with Curtis Woodwork of architectural character.



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A BOOKCASE should be as much a part of your house as your books are a part of your life. This bookcase will be a beautiful part of your home today and equally as attractive to the next generation. Your children will grow up to love it, and link it with the treasures that it holds. There may be the books that father bought and hoped his children would later read, besides your own well-thumbed volumes of favorite nursery rhymes.

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This is bookcase C-575. You can have it, just as you can have china closets, mantels, sideboards, buffets, kitchen dressers, dining alcoves, bedroom dressing tables and tray cases, stairs, doors, windows, and interior trim, built into your house as an integral part of the house itself, a part of the very structure.

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Curtis Woodwork is designed by Trowbridge & Ackerman, architects, of New York, who designed and planned a large number of houses to be built with interior and exterior Curtis Woodwork. These houses range from three to eight rooms and are developed in four architectural expressions—Colonial, English, Western, and Southern. Appro-



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With one door and a pedestal base.

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Gillette Cord Tires, like the hardy old polar, have grit, spirit, endurance—that take punishment without a whimper.

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A Star Windmill

will materially lower
the cost of pumping
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Oil but once a year



The No-Oil-Em Bearings used on Star Windmills are particularly economical in the use of oil. They provide excellent lubrication, and save climbing the tower often, as one oiling each year insures you an easy running windmill.

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Provides an independent supply of water for farm homes. Use any kind of power, pump from well of any depth. Easily installed and economically maintained. Write for Bulletin F.

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COSTS so little no one with wood to cut can afford to be without it. Will saw your winter's wood in a few hours. Does all practical work any other saw rig can and makes unnecessary the expensive, cumbersome rigs used in the past. For a small part of their cost you can now own the

OTTAWA SAW RIG

Powerful 4-cycle motor. Suitable for driving belt driven machinery. Easy to operate, light to move, simple to handle. Users say they make \$11.00 per day cutting wood for the neighbors. **30 Days' Trial; 10-Year Guarantee.** Let the Ottawas do your sawing 30 days to prove our claims. Free Book. **OTTAWA MFG. COMPANY** 294 Main Street, OTTAWA, KANSAS. Ottawa Ships 'em Quick.

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Raising The Dead

Our Weekly Serman—By N. A. McCune

A MAN who was much discouraged through a part of Syria on camel back. The country largely a waste, the people poor, the buildings but huts. By the promised Messiah, or whether people were to look for another. He got a powerful reply. "The blind receive their sight, the lame walk, the lepers are cleansed, the dead are raised up, and the poor have the gospel preached to them." He did not say He was the Messiah, He simply submitted the evidence, and let His friend draw his own conclusions. Is this kind of work done now? Or has the church lost the power? Many will instantly reply that all miracles are impossible. Others will declare that the church could not restore sight to the blind or raise the dead in a thousand years. It is true that the general power of healing and miracle working seemed to pass away with apostolic days. Yet even then not all people were cured. St. Paul says, "Trophimus have I left at Mile-tum sick." Why did he not cure Trophimus? He also states that he himself was afflicted with a serious disorder, which he was told to bear, and which would not be healed. And we must remember also that people are healed by faith now. Perhaps healing is not as common as it might be, if people were more believing. But such cures do occur, and there can be no reasonable doubt about it. Blindness of the soul is healed, too. Such a cure is no less wonderful than blindness of the optic nerve, and the consequences of it may be a thousand-fold more far reaching. I went once to see a man and his wife about confessing Christ and coming into the church. I got a cold reception. I went again and it was more frigid than before. One day a wee specimen of humanity came to live in that home, and as Easter drew near, I thought to try once more, as to how that man and wife would consider Christianity in their lives. Yes, they were both eager to come into the church. They realized that they had not lived as guides of a little unfolding life should. It was a happy day when they took their stand in front of the altar rail, and made a public confession. The expression on their faces had changed. It continued to be changed, from that day forward. Is not that restoring sight to the blind?

"The lame walk." They do not run races, necessarily, nor enter athletic contests, nor scale Mount McKinley. But they walk. They are able to do the normal thing. And the beauty of religious faith is, that it is normal and it makes everything else normal. An American traveller was once going

through a part of Syria on camel back. The country largely a waste, the people poor, the buildings but huts. By the promised Messiah, or whether people were to look for another. He got a powerful reply. "The blind receive their sight, the lame walk, the lepers are cleansed, the dead are raised up, and the poor have the gospel preached to them." He did not say He was the Messiah, He simply submitted the evidence, and let His friend draw his own conclusions. Is this kind of work done now? Or has the church lost the power? Many will instantly reply that all miracles are impossible. Others will declare that the church could not restore sight to the blind or raise the dead in a thousand years. It is true that the general power of healing and miracle working seemed to pass away with apostolic days. Yet even then not all people were cured. St. Paul says, "Trophimus have I left at Mile-tum sick." Why did he not cure Trophimus? He also states that he himself was afflicted with a serious disorder, which he was told to bear, and which would not be healed. And we must remember also that people are healed by faith now. Perhaps healing is not as common as it might be, if people were more believing. But such cures do occur, and there can be no reasonable doubt about it. Blindness of the soul is healed, too. Such a cure is no less wonderful than blindness of the optic nerve, and the consequences of it may be a thousand-fold more far reaching. I went once to see a man and his wife about confessing Christ and coming into the church. I got a cold reception. I went again and it was more frigid than before. One day a wee specimen of humanity came to live in that home, and as Easter drew near, I thought to try once more, as to how that man and wife would consider Christianity in their lives. Yes, they were both eager to come into the church. They realized that they had not lived as guides of a little unfolding life should. It was a happy day when they took their stand in front of the altar rail, and made a public confession. The expression on their faces had changed. It continued to be changed, from that day forward. Is not that restoring sight to the blind?

"The deaf hear, the lepers are cleansed." It is the natural function of the laws of God to heal. As said before, faith healing is not an entirely forgotten art. And the healing of rivalries and ill will is as much a part of this program as is the healing of the body. It may be more vital, than the healing of the body. A modern writer who is known in Europe as well as America says, that a Christian American and a Christian German have more in common than a Christian American and a non-Christian American. That is a statement which makes one think, whether he agrees with it at first blush or not. One thing is certain: we are not able to heal the international wounds of the world as we ought to be. People are still suspicioning each other. The church wants to help and is helping, but cannot command. The Council for Promoting International Friendship through the churches is doing pioneer work, and may be laying foundations that will withstand all assaults. But one thing we must face: Christ never intended that Christian should fight Christian, either in personal combat or in war, or in commerce. We must work together, or we will work at enmity with each other. And enmity means the old, foolish program of hate and bloodshed all over again. Every believer in the gospel of healing should strive to make his church a center for healing differences among men. The Duke of Wellington was once kneeling at the altar, at Communion. Beside him knelt a poor man, shabbily dressed. The vicar whispered to the poor man to move over, as he was beside the great duke. Wellington heard him and administered a rebuke that the vicar probably never forgot, saying that there was no respect for persons with God. And the dead are raised today. Men are seeing life differently and living it differently, and that, according to St. John, is passing out of death into life. The freshness and vigor of Christianity makes it a mighty factor today, and it will become more so, as men act with as much sense toward God, as they do in dealing with each other.

The Valley of the Giants

(Continued from preceding page.)

Bryce looked him fairly in the eye and favored him with a lightning wink. "I have never heard of you, Mr. Ogilvy. You are mistaking me for someone else."

"Sorry," Ogilvy murmured. "My mistake. Thought you were Bill Kerrick, who used to be a partner of mine. I'm expecting him on this boat, and he's the speaking image of you." Bryce nodded and passed on, hailed a taxicab, and was driven to the San Francisco office of his company. Five minutes later the door opened and Buck Ogilvy entered.

"I was a bit puzzled at the dock, Bryce," he explained as they shook hands, "but decided to play safe and then follow you to your office. What's up? Have you killed somebody, and are the detectives on your trail?" If so, 'fess up and I'll assume the responsibility for your crime, just to show you how grateful I am for that hundred."

"No, I wasn't being shadowed, Buck, but my principal enemy was coming down the gangplank right behind me, and—"

"So was my principal enemy," Ogilvy interrupted. "What does your enemy look like?"

"Like ready money. And if he had seen me shaking hands with you, he'd have suspected a connection between us later on. Buck, you have a good job—about five hundred a month."

"Thanks, old man. I'd work for you for nothing. What are we going to do?"

"Build twelve miles of logging railroad and parallel the line of the old wolf I spoke of a moment ago."

"Good news! We'll do it. How soon do you want it done?"

"As soon as possible. You're the vice-president and general manager."

"I accept the nomination. What do I do first?"

"Listen carefully to my story, anal-

alyze my plan for possible weak spots, and then get busy, because after I have provided the funds and given the word 'Go!' the rest is up to you. I must not be known in the transaction at all, because that would be fatal. And I miss my guess if, once we start building or advertising the building of the road, you and I and everybody connected with the enterprise will not be shadowed day and night by an army of Pinkertons."

"I listen," said Buck Ogilvy, and he inclined a large speckled ear in Bryce's direction, the while his large speckled hand drew a scratch-pad toward him.

Three hours later Ogilvy was in possession of the most minute details of the situation in Sequoia, had tabulated, indexed, and cross-indexed them in his ingenious brain and was ready for business—and so announce himself. "And inasmuch as that hundred you sent me has been pretty well shattered," he concluded, "suppose you call in your cold-hearted manager who refused me alms on your credit, and give him orders to honor my sight-drafts. If I'm to light in Sequoia looking like ready money, I've got to have some high-class, tailor-made clothes, and a shine and a shave and a shampoo and a trunk and a private secretary. If there was a railroad running into Sequoia, I'd insist on a private car."

This final detail having been attended to, Mr. Ogilvy promptly proceeded to forget business and launched forth into a recital of his manifold adventures since leaving Princeton; and when at length all of their classmates had been accounted for and listed as dead, married, prosperous, or pauperized, the amiable and highly entertaining Buck took his departure with the announcement that he would look around a little and try to buy some good second-hand grading equipment and a locomotive, in addition to casting an eye over the labor situation and sending a few wires east for the purpose of sounding the market on steel rails. Always an enthusiast in all things, in his mind's eye Mr. Ogilvy could already see a long trainload of logs coming down the Northern California & Oregon Railroad, as he and Bryce had decided to christen the venture.

"N. C. & O.," Mr. Ogilvy murmured. "Sounds brisk and snappy. I like it. Hope that old hunk Pennington likes it, too. He'll probably feel that N. C. & O. stands for Northern California Outrage."

(Continued next week).

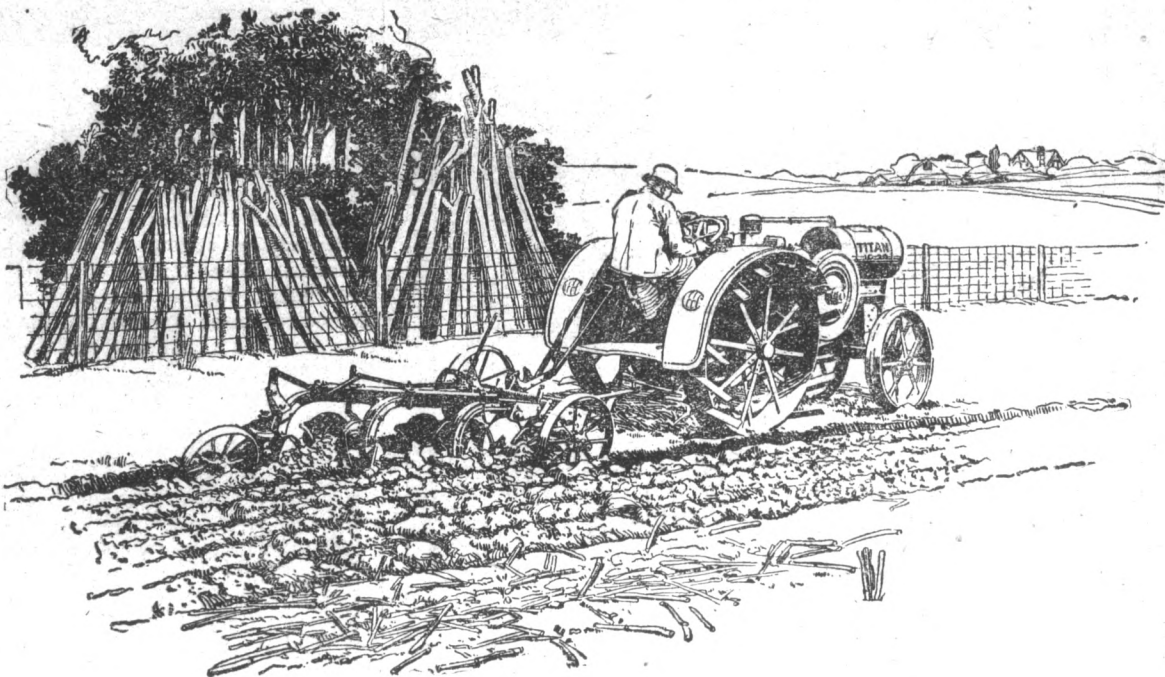
Sunshine Hollow Items

By Rube Rubicon

Daniel Thompson says they should have a law compelling the inspection of automobiles before they go in the country at night. No cars should be passed that do not have plenty of gas, a tire patch and a pump. Daniel works hard in the field all day and is getting tired having to dress and lay on his back under his car after midnight to drain out enough gas to get some joy rider back to the city.

Some folks should never park their little four-cylinder Nubbin next to a Bullion super-six. It makes them envious owing to the unfortunate comparison that results. A little Nubbin is just as nice to look out of as a big Bullion and it don't take so much gas. But it helps to keep a man satisfied if he always parks the little Nubbin near some other cheap looking buss rather than by the big Bullion.

Billy Peterson fell in the mud last week up to his ankles. It wouldn't have caused any trouble but he was wrong side up. Some folks say that it served Billy right, as he is always doing some playful stunt like dropping his sister in the cistern to hear her splash or putting a cold frog in his grandfather's bed.



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THIS Company has lived a remarkable history. To tell it in the way of history would be to unfold a story of many pages—a story as wide as world-agriculture and nearly as long as a century.

But the story is being told every day in vital and more interesting terms. It is being told in countless fields of the nation, where **Titan Tractors** are steadily turning kerosene into farm power. Here is summed up the true history of Harvester purpose and success. It is a story of action, rather than of words.

In 1831, Cyrus McCormick placed

the first reaper in the grain field and opened the way to a future full of vast possibilities. Then began a manufacturing career that has placed millions of practical machines on American farms and now finds its most modern expression in the **Titan 10-20 Tractor**.

It is no accident that Titans today are toiling the world over, to the end that farm harvests may be greater and better. This tractor is the careful product of ninety years' accumulated endeavor, experience, and contact with the problems in farming. That fact accounts for **Titan** predominance.

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OF AMERICA
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REAL POTASH

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Time

is vital in the fertilizer situation this Fall. The world is short of wheat, the farms are short of labor. Fertilizer is needed more than ever, but the fertilizer manufacturers are short of cars and labor to load cars. It is impossible to supply the fertilizer needed this fall unless the shipping season is lengthened, and this can only be done by starting earlier. Why not place your order now for

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F.S.R.

If you delay, you may fail to get Royster's. You may even fail to get ANY FERTILIZER.

F. S. ROYSTER GUANO CO.
TOLEDO, O.

Our Farm Bureaus

(Continued from page 137).

their herds. With proper supervision such a system of yearly testing could be made far more valuable than the system now in vogue, and breeders would not have to be financial geniuses to make the work pay large dividends.

Boys' and Girls' Club Work is receiving more attention since Mr. Tenney took charge of the work in June. Besides the Shorthorn bred-heifer club he has charge of four pig clubs of forty members. Three miles out of Charlotte we visited Ralph Johnson who purchased a Duroc Jersey gilt last year and now has a fine sow and family of

which the pedigreed seed business of the county will be handled. This department will be developed as rapidly as possible, and every effort will be made to improve the grain crops of the county and find better markets for pedigreed grains.

One of the outstanding herds of Holstein cattle in Michigan is owned by H. W. Hancock, of Charlotte. Here we found about fifty head of cows and young things, headed by Sir Peacedale Mabel Ormsby, a son of Sir Ormsby Banostine Rag Apple, one of the best sons of that famous matron, Duchess Skylark Ormsby, the cow that made Minnesota famous as the home of champion Holsteins. Among the cows in the herd are such individuals as Grandview Mabel Segis, with a batting average of 31.77 pounds of butter and six hundred and eight pounds of milk in seven days. For a junior herd sire Mr. Hancock has a grandson of May Echo Sylvia, the great Canadian cow, whose bull calf sold for \$106,000 at the Milwaukee sale in 1918. George A. Hyde, the manager of the farm, knows the Holstein game and considering the fact that the herd has been founded only three years he has made an excellent showing. No effort has been spared to make the herd one of the best in the country, and Mr. Hancock is to be congratulated for bringing such good sires into the state. The plant is complete in detail and there is every equipment for handling the herd to good advantage and producing sanitary milk.



Members of the Eaton County Bred Heifer Club.

six pigs. Ralph has recently purchased a purebred Shorthorn heifer and plans to have his father's farm pretty well stocked with purebred stock within a few years.

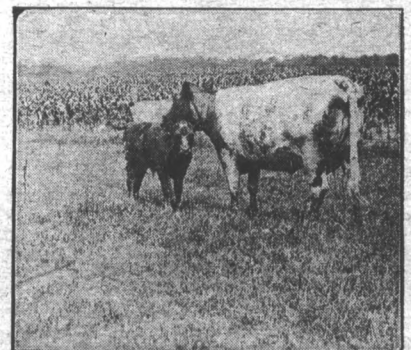
A short distance from Ralph Johnson's home we visited Donald Shepard, the super-breeder and club member, who has recently purchased a pure Scotch Shorthorn heifer. Donald has a fine Poland China sow and family of pigs, flock of Shropshire sheep, White Wyandotte chickens and New Zealand Red rabbits. Last fall he trimmed some of the old exhibitors of live stock at the Eaton County Fair, and this year club members are not going to be given a chance to show in the breeding classes. Young Shepard is going to enter some of his stock in the breeding classes and let some of his boy friends make up the club exhibits. He is an enthusiastic club member and a leader among the boys.

Another club project is the Good Luck Canning Club, of West Carmel. Agnes Martin, a member of the club for two years, is now leader for the younger girls. She has developed two demonstration teams of exceptional ability for demonstrating the cold-pack method of canning. Miss Robb, of M. A. C., judged the work and scored them very high in team work and neatness of canning. Interest of the entire community is being shown in the work and the meetings are well attended. The members of the Good Luck Club are Madeline Smith, Burhana Smith, Dorothy Dean, Venda Ransom, Helen Bust, Ruby Clay.

SOIL and fertilizer experiments and alfalfa and soy bean demonstrations are being conducted on many farms under the direction of County Agent Decker. One of the most valuable series of experiments is the one with alfalfa for determining the relative hardness of Grimm, Cossack, Common and Liscomb in withstanding the Michigan winters. Poultry culling demonstrations are being given due attention, and Mr. Decker will make them a prominent feature of his work this summer.

Another project that is being worked out by Mr. Decker is that of the handling of the new seed department of the County Farm Bureau through

One of the first stops after leaving Charlotte was at the farm of F. L. King, an extensive feeder of cattle, sheep and hogs, and breeder of Percheron horses. He has a finely equipped plant and a highly productive farm. Mr. King feeds about eighteen hundred sheep, a carload of cattle and two hundred hogs each year. The farm consists of one hundred and seventy acres, devoted primarily to growing roughage for live stock. Several carloads of cull beans are fed to the sheep and hogs each year. Among the Percheron horses are some of the finest work teams the writer has found in Michigan. These mares are used for farm work and yield a double income. Mr. King is feeding his fattening hogs an exclusive ration of cull beans and has promised to give the readers of the Michigan Farmer a summary of his results at the end of the feeding period. Figures of this kind should prove valuable, inasmuch as only a few feeders have kept as complete records



Owned by Morrison Clay, of the Eaton County Junior Shorthorn Club.

when feeding cull beans to fattening hogs.

Over near Pottsville we visited Blank & Potter, breeders of Duroc Jersey swine and feeders of lambs. Here we found about twenty excellent brood sows, including Brookwater Jane 41, one of the best sows of the breed in Michigan. The head of the herd is Oakland Premier Chief, fourth in junior yearling class at the International last year. Mr. Blank is an experienced stockman and feeds more than a thousand lambs each fall. Last winter one

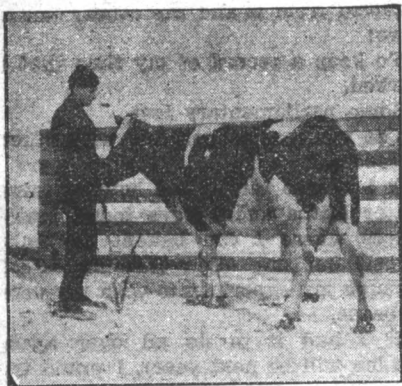
When You Write to Advertisers Please Mention This Paper.

carload of his lambs sold for fifty cents per hundred above the top at Buffalo. The farm consists of three hundred and twenty acres and the crop growing system is based upon the production of feed crops for lambs and hogs.

G. P. Phillips, of Bellevue, owns and operates a splendid stock farm and breeds Shorthorn cattle, O. I. C. hogs, Shropshire sheep and Barred Rock chickens. Mr. Phillips was not at home, but his farm and stock showed indications of careful breeding and good care and management.

Another interesting visit was at the farm of Marshall Kelly a few miles out of Charlotte. At Mr. Kelly's farm we examined a fine herd of Aberdeen Angus cattle, and looked over one of the real outstanding yearling bulls of the season. He is a son of Lapeer Blackbird and out of Marguerite Carlo. During the past year the herd has been reduced to about twenty head, and will not be exhibited at the fairs this fall. The difficulty of securing competent help and preparing the animals for the fall circuit has discouraged Mr. Kelly from making the rounds.

A few miles from Charlotte we spent a short time at Wood View Farm, where Carl Hitchcock breeds registered Holstein cattle. At present his herd numbers only eighteen head and he is



Bessie Roxy De Kol, Owned by C. G. Hitchcock.

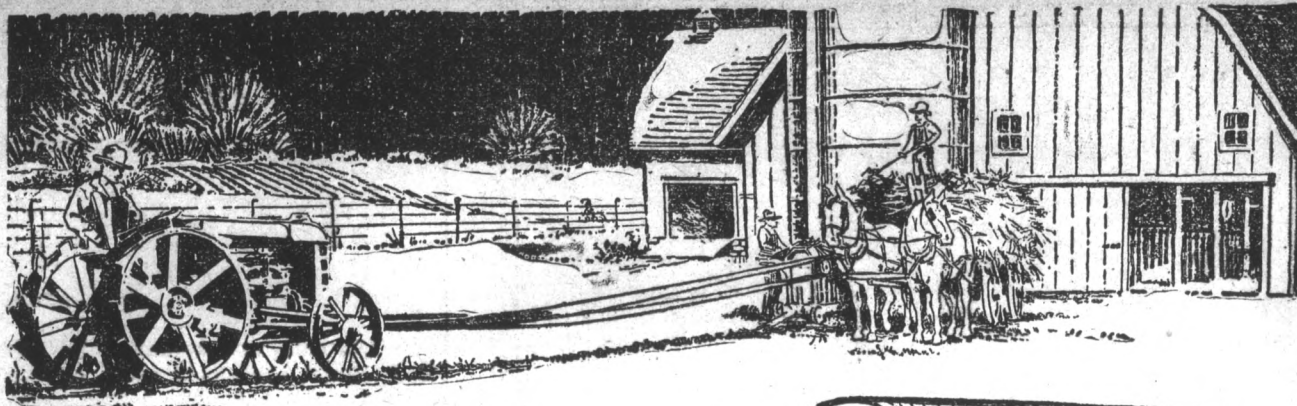
using for a sire Model Glista King Segis, a bull of great individual merit and good breeding. He is owned by a company of breeders and is being used extensively in some of the best herds in the county. All of Mr. Hitchcock's young stuff show good quality and some of his cows have made very credible A. R. O. records.

Another Holstein breeding farm visited was that of D. G. Miller & Sons, where we found one of the most promising bunches of young heifers we have looked over in some time. The herd sire is Korndyke Taurus 2, from the well-known herd of T. W. Sprague, of Battle Creek. The Millers own and operate a farm of one hundred and fifty acres, devoted primarily to growing feed crops for the dairy herd. They have a well-equipped plant and some excellent cattle in their herd.

One can gain a fair idea of the magnitude of the sheep industry in the county from the fact that more than 225,000 pounds of wool have been consigned to the State Farm Bureau Wool Pool.

ADVOCATES A NATIONAL FOREST POLICY.

In advocating a national forest policy, Charles L. Pack, president of the American Forestry Association, says "the virgin forests of the United States have shrunk to one-sixth of the original area. About one-half of the timber left is in the three Pacific states, and over 61 per cent is west of the great plains. Every year there is consumed or destroyed 56 billion board feet of material of saw timber size. The total yearly consumption of all classes of timber is 26 billion cubic feet. Our repleted forests are growing less than one-fourth of this amount." E. E. R.



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Not only does the making of ensilage furnish a supply of exceptionally good, economical feed for live stock but it clears the corn field for an early start the next season. It's another step toward more efficient, more profitable farming.

And when you belt your Fordson to your ensilage cutter, be sure it's a Little Giant tractor belt that transmits the power. Little Giant belts are specially designed for exclusive use with the Fordson and combine the features that enable the tractor to develop a steady, even flow of unfailing power through its belt pulley.

The Little Giant grips the pulley like the clutch of a giant hand. There is no slippage and wastage of power even when the ensilage cutter is overloaded. The Little Giant is an endless belt so there is no pulling out of belt ends and no delays for relacing. The Little Giant is a special treated, canvas belt and is unaffected by the moisture, heat and exposure a belt must meet in farm work. An exclusive feature is the extra stitching which resists the effects of edge wear and greatly lengthens the life of the belt.

You can buy a Little Giant from your local Fordson dealer—save the expense and delay of sending away for a belt. Ask your Fordson dealer to show you a Little Giant belt, or write us direct for complete information.

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FREDERICK C. MARTINDALE FOR GOVERNOR OF THE STATE OF MICHIGAN



Primaries
August 31st

1. He was born on a farm and has lived on one most of his life.
2. He owns and operates under his personal supervision a large well-equipped farm in Oakland County.
3. He advocates the providing of certain facilities by the State for the better handling and marketing of farm products.
4. He would encourage lake-to-ocean route as outlet to Michigan products and gateway for Michigan necessities.
5. He believes in generous treatment of service-men and their families.
6. He has had broad experience in State affairs as Representative, Senator and Secretary of State and as such took great interest in advancement of child welfare, pure food laws, health laws, laws relating to good roads and the betterment of farm conditions.
7. He has at heart the highest good of the State, the correlation of all its varied activities and the fullest development of its business, social and religious life.

—Advertisement.

Hoosier Yellow Pine or Oregon Fir, with or without hinged doors. Best Anchoring system on the market. We can furnish one-piece staves in Pine up to 24 feet long. Fir up to 32 feet long. Prompt shipment from stock.

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Steel Roofs, Chutes, and Paints

Complete line of steel roofs and chutes for silos. Paints for all kinds of farm buildings at money-saving prices direct from manufacturer to buyer. Write for prices and special agents' proposition.

HOOSIER SILO CO.
Dept. M-27 Muncie, Ind.

Dickey Glazed Tile Silos

Best of materials, six different diameters, everlasting hollow tile roof, easiest to build—such features as these have made the Dickey pre-eminent among silos.

The Fruit Jar of the Field
Send for catalog No. 9

W. S. Dickey Clay Mfg. Co.
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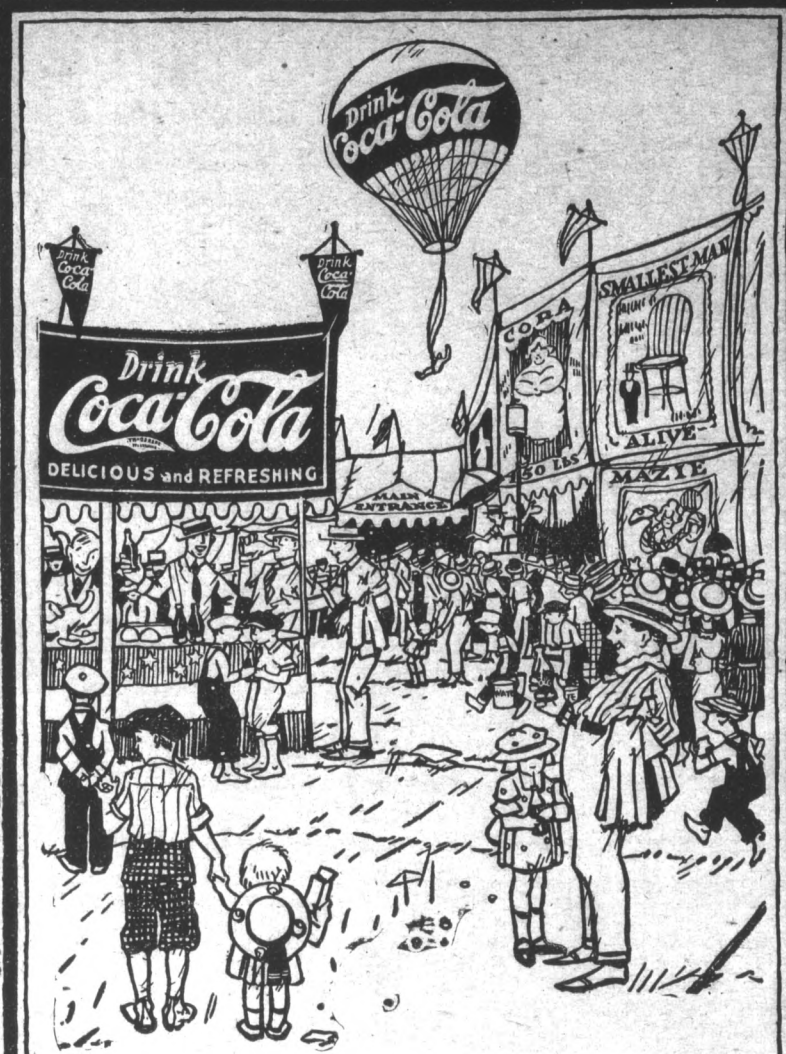
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25 H. P. Port Huron Tractor. Good condition. Detroit Automatic Scale Company, Detroit, Mich.



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We have a supply of Pullets that will interest you and that will give winter eggs to add to your profits.

8 Weeks Old Leghorns
There are 500 S. C. White Leghorns; also 75 8 weeks old Anconas.

1000 Yearling Pullets
White and Brown Leghorns, now laying; Anconas, Minorcas, Rocks, Reds and Wyandottes. Let us tell you what we have.

Cockerels—English White Leghorns only; no others.
STATE FARMS ASSOCIATION, Kalamazoo, Mich.

Desk 1, Clinton, Mo.

BABY CHICKS of superior quality from record laying purebred stock. All varieties. 12 cents each up. Postpaid. Live arrival guaranteed. Guaranteed none better. We give quickest delivery. Catalog free.

SUPERIOR O.K. HATCHERY, Clinton, Mo.

BARRED ROCKS. Eggs from vigorous early maturing stock from heavy laying strain. \$2 per 15, \$5 per 45. Prepaid by parcel post. R. G. Kirby, Route 1, East Lansing, Mich.

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.

CHICKS

S. C. White Leghorn growing youngsters six to twelve weeks old, also Adult Birds at a bargain.
SUNNY BROOK POULTRY FARM, Hillsdale, Mich.

CHICKS

Rose and Single Comb R. I. Reds, Barred Plymouth Rocks, \$18 per 100, \$9 per 50, \$4.75 per 25, prepaid and safe delivery guaranteed. Catalog free. Last hatch July 27th.
INTERLAKES FARM, Box 39, Lawrence, Mich.

Leghorns, Minorcas, Spanish, Houdans, Cam-chicks, pines, Reds, Rocks, Orpingtons, Brahmas, Wyandottes. Tyrone Poultry Farm, Fenton, Mich.

Fowler's Buff Rocks. We are now booking orders for forelegs. A few choice cockerels left. R. B. FOWLER, Hartford, Mich.

LOOK! BABY CHICKS \$14 A 100 UP!

By insured parcel post, postage paid. 40 breeds chicks, 4 breeds ducks. Aug. and Sept. chicks for February and March layers. Catalog free, stamps appreciated. NABOB HATCHERIES, GAMBIER, OHIO

Pullets and Cockerels

Order now for fall delivery. Anconas, Leghorns, Minorcas, Reds, Rocks, Wyandottes.

CRESCENT EGG COMPANY, Michigan.

Pullets and cockerels. From thorough-bred Baron White Leghorns the type that are bound to make good producers. Raised on free range. Every bird guaranteed and shipped on approval. Send for prices and catalog. Brummers Poultry Farm, Holland, Mich.

Rhode Island Whites

Are the best all purpose birds being year round layers. Egg and chicks and a few good males.
H. H. JUMP, Jackson, Michigan.



TOO LATE!

After the tire has exploded it is too late.

Find out if it needs more air BEFORE the blow-out happens.

To do this, you need a

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UNIVERSAL TIRE PRESSURE
GAUGE
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HOLLOW
SELF FILLING
VERMIN PROOF PERCHES

Fill tank with oil or dip for the stuff you spray with. Roost become saturated killing lice and mites, have healthy hens and DOZENS MORE EGGS. ALLIEN VERMIN PROOF PERCH CO., Dexter, Michigan

Our Boys' and Girls' Page

My Crop of Beans

By Clarence Mallison.

OUR club was organized by Mr. Knopf, our county agent, on May 26, at the Arcadia school house, and the following officers were elected: President, Sadie Kirchmeyer; vice-president, Marvin Werle; secretary, Irma Mallison; treasurer, Agatha Scheuren; local leader, Mrs. Bertha Mallison.

Our club was then named the Arcadia Successfulists, of which we are all very proud, as well as our county agent.

The object of the Boys' and Girls' Clubs is to create a greater interest among the coming generations and to encourage the boys and girls to stay on the farm.

The reason that I enrolled as a member of the bean club was that I wanted to learn more about raising beans, and to learn whether or not it is profitable to raise beans. Which I find that it is.

The bean crop is of very great importance to the state of Michigan because we now hold one very important place in the bean production of our country. Beans are a profitable crop to raise in this country, not only for the value of the crop of beans, but for the value which is received from the next year's crop, providing that is a crop which requires an abundance of nitrogen as the wheat plant does.

My plat where my beans were grown is located in the corner of the second forty acres of land in section thirty-five, Arcadia township, Manistee county. The soil is sandy with a clay subsoil about four feet below the surface. When I made up my mind that I wanted to grow beans, I rented an acre of land from my father which I was to get after the peach stumps had been removed. Then I manured the land at the rate of seventeen loads per acre and then proceeded to plow it. The soil was not just right for beans because sod should be plowed in the fall, where one does not wish to plant any other crop before planting beans. After it had been plowed I harrowed it twice and then just before it was planted I harrowed it, then marked and planted it the twenty-fourth day of June. I watched the plat day by day, expecting to see my beans start to germinate, but each day the sand grew hotter and hotter until the second day of July, when we had a shower which broke the summer's drought and my beans came up and made a very progressive growth with the aid of three cultivations until the last of September, when they started to ripen and

were ready to be harvested October 5. As my beans started to ripen I watched the beans which ripened the more quickly and were filled the best, and saved them for seed. My crop of beans is not all threshed yet but I have enough of them so that I can estimate quite accurately the amount of beans which are not yet threshed. My expenses were as follows:

Rent of land	\$ 5.00
Cost of seed	1.45
Cost of getting the plat ready to plant	3.00
Cost of planting50
Cost of cultivating60
Cost of manure	5.00

Total\$15.55

I did not have to hire any horses to do the heavy work as I own two. The club has done many things for me that will be of value to me in all of my future. Some of the things which I received from it and the county agent were:

To keep a record of my time that I worked.

Some parliamentary law.

The value of cooperation with other members.

It has also taught me how to raise better beans and I have found many places where I can benefit not only myself but our other farming. Just through my experiments with my acre of beans.

If I had it to do all over again (which will be next year), I would try to make our club meetings more interesting so that more of our parents will realize the fact that all of us club members are working for some definite point and then they will become more interested and give us a better show to reach our point, which we all have in view, and try to make the country a more sociable place with the help of the club members.

Our club is not going to die during this winter but we are going to keep it up and organize clubs which will be of value during the winter months. Next spring we are going to organize another club which will have many new members which will help us to make our club worthy of its name, "The Arcadia Successfulists."

WIRELESS EXPLAINED.

MILE-LONG waves which travel so fast that they could go round the world seven times in less than a second—these are the things we are reading about daily, the electric disturbances set up in space or in the



Hot Lunch Club, Maplegrove School, Wayne County.

"aether" which fills space, by wireless aerials spotted all over the world.

If you strike the middle C on a piano, and the C an octave below, a person standing some distance away will hear both notes simultaneously, yet the middle C sets up twice as many air waves a second as the lower C; the sound travels at the same speed, the wave-length is different.

Just the same with wireless signals. One transmitting apparatus may send out waves one thousand metres long, another five thousand metres. Both travel at the same rate, about 186,000 miles per second, but the longer waves are more suitable for long-distance transmission.

A metre is rather more than a yard and the early wave-lengths employed in wireless were three hundred and six hundred metres; the former for short distances, the latter for longer ones. Very much longer waves are in frequent use today.

It is well known how a certain glass, cup or vase in a room will ring in sympathy with a certain note struck on the piano because if struck or tapped it would vibrate itself and give out the same note.

The phenomenon of resonance will cause anything to vibrate whose natural rate of vibration happens to be that of the note struck. A tuning-fork, for instance, which gave the note C would vibrate—very faintly, no doubt—if held near a musical instrument on which the same C was struck.

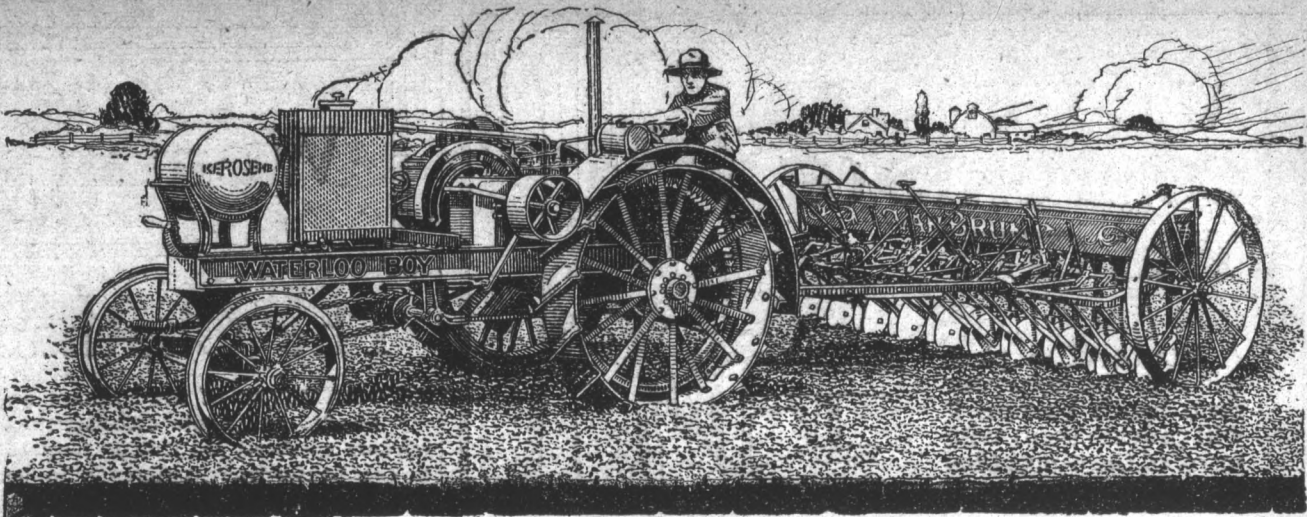
Now, imagine a tuning-fork, the prongs of which could be lengthened or shortened at will, so that whatever note was struck, i. e., whatever length or musical wave was sent out—you could adjust the fork to respond to it. Translate sound wave phenomenon into electro magnetic (or wireless) wave phenomena, and your tuning-fork can make your receiver respond to whatever length of wireless wave the station is sending out.

For good technical reasons wireless wave-lengths are measured in metres, and when we read of a one-thousand-metre wave it means that the length of each disturbance sent through space with the inconceivable velocity of 186,000 miles a second is some 1,093 yards in length. Seventeen of such waves would bridge the space between two wireless stations ten miles apart. The receiver would tune his circuit to respond to a one-thousand-metre wave-length.

These waves do not follow each other with the grandiose solemnity of sea waves; in wireless telephony one hundred thousand of them may come flashing by in the course of a second. So delicate is the receiving apparatus of today that little interference is caused through the hundreds of messages that are crossing space at one and the same time, with many a different wave-length.

Methods of tuning are highly refined, though intensely simple. Directional devices have also helped considerably in this way. Yet it seems wonderful that, while a separate pair of wires is needed for every telephone circuit at work, innumerable people could speak by wireless through the common aether without interference, save that "listeners-in" would be able to gather up innumerable fragments of their conversation.

Little Nora Templeton has written a parody on the song about the end of a perfect day. Her piece is called, "This is the end of an eight hour day." It ends up with the suggestion that her Dad has got to get right out and work eight hours more if he ever pays off the mortgage and keeps up the installments on the phonograph.



Service That Satisfies— Ask Any User.

THE dependable performance and economical operation of the Waterloo Boy Tractor back up the good buying judgment of its many owners. For more than five years it has been "making good" in the hands of thousands of satisfied users. Users have found that they can count on the Waterloo Boy to give them real service.

WATERLOO BOY BURNS KEROSENE COMPLETELY

Talk to a farmer who owns a Waterloo Boy. Ask him about his tractor. He will tell you about the dependable power of the 12-25 H.P. engine, and that it satisfactorily performs year 'round, heavy duty service. He will tell you that you can bank on that engine to stick with you when the work has piled up and everything needs doing at once—that it "sees him through."

Ask him what it costs to run the Waterloo Boy. His figures will surprise you. An average of two gallons of kerosene per acre in plowing. A gallon and a half per hour on

belt work. Two quarts of lubricating oil per ten hours work.

The Waterloo Boy is extremely simple in construction. Conveniently placed inspection plates make it easy to get at all parts from a standing position. A drawbar shifting lever gives you the correct hitch on all tools, eliminating side draft. A pump, fan and radiator insure positive cooling, and hold the motor at the proper running temperature.

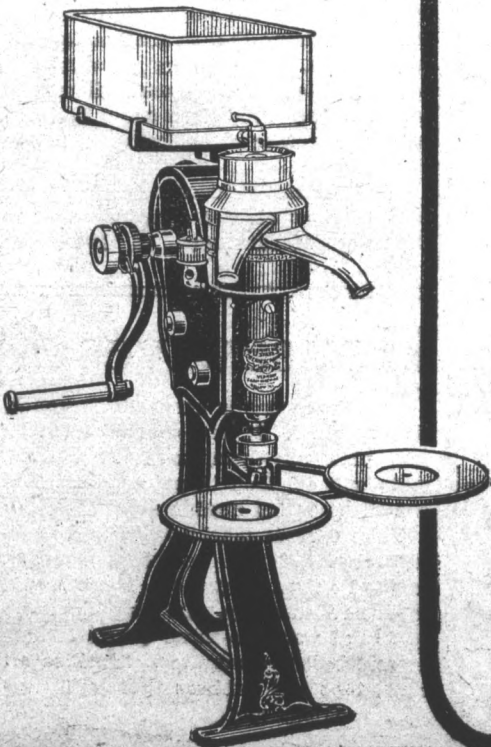
There are many other features of Waterloo Boy economy and service. Investigate the Waterloo Boy before you buy.

Write for our booklet fully describing this practical, economical tractor. Send a postal card today. Address John Deere, Moline, Ill., and ask for package WB-826.

JOHN DEERE

THE TRADE MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS

UNITED STATES CREAM SEPARATOR WITH PERFECTED DISC BOWL



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A machine may be said to have reached perfection when, through mechanical and engineering excellence, it renders a degree of service in money- and labor-saving never before attained.

Years ago, the United States Cream Separator reached the peak of perfection as a money saver, by winning in open competition the world's record for close separation—a record that still stands.

The perfecting of the United States Disc Bowl is the last big achievement in cream separator building. With this notable refinement, the labor-saving features of the United States challenge and welcome all comparisons.

Those who know the ease of operation, the simplicity of cleaning, say the United States represents perfection in the most important detail of milk handling.

Write for literature today—but be sure to have the United States dealer near you show the machine itself.

Vermont Farm Machine Corporation

Bellows Falls, Vt. Chicago, Ill.
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A Litscher Lite plant will help you keep your farm hands because it will provide them with many of the things they can get in the city. It will lighten labor and keep them satisfied.



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Farm Help Problem Solved

In the first place, a Litscher Lite plant on your farm means unlimited electric current for incandescent lights in the barns and home. It means modern electrical appliances such as electric washing machines, irons, fans, vacuum sweepers, percolators, toasters—even home movies. In the second place, a Litscher Lite plant also offers you stationary engine power for the operation of belt machinery. Cream separators, fanning mills, feed choppers, pumps, (thus affording modern bath rooms), churns, milkers, hair clippers, are operated by the Litscher Lite plant.

The Litscher Lite plant is designed to operate without attention. It requires only oil, water and kerosene fuel to keep it running, and will give you modern illumination, plus farm labor power.

C. J. LITSCHER ELECTRIC CO., Distributors
GRAND RAPIDS, MICHIGAN

Woman's Interests

The Chatham Conference

HOUSEWIVES of the Northern peninsula and home demonstration workers up there, are looking forward to the housewives' conference to be held in Chatham, Michigan, August 12. Two thousand visitors are expected, and there is to be a general round-up of extension workers, with lectures, demonstrations and exhibits of work done by the clubs of the northern section.

The following program has been arranged:

"How Can M. A. C. Best Serve the Home-keeper?" Miss Edna Smith, state leader of home demonstration agents. "Home Demonstration Agent Work in Houghton County," Mrs. Rice, Houghton county. "Food Study Clubs," Mrs. Brearley, Schoolcraft county.

"Helps in Home Sewing," Miss Antonio, Dickinson county. "Girls' Clubs in Northern Michigan," Miss Barbara VanHeulen, state club leader, girls'

Garment-making demonstration, Girls' Club, Iron county. "Mechanics of the Household," illustrated lecture, Miss Pratt, home demonstration agent, Chippewa county, and Miss Sylvia Richardson, home demonstration agent, Gogebic county. "Home Millinery," Miss Helen Arms, clothing specialist from Michigan Agricultural College.

Milk exhibits will show the value of milk in relation to health and its place in the diet. Milk beverages will be given away. Recipes will be printed for distribution.

Clothing exhibit from clothing club, Dickinson county, will show remodeled garments, remodeled hats, required garments in girls' club work, how to know materials, layette.

Free instructions in simple processes of millinery and decorative stitches will be given from 10:00 to 12:00 a. m., and from 4:00 to 6:00 p. m.

Michigan Home Agents Organize



The picture shows Miss Waldron, Miss McElhenney, and Miss Rogers on the steps of the Women's Building at the Michigan Agricultural College.

TO promote home economics work in Michigan the home agents who attended the recent women's conference at East Lansing organized the Michigan Home Demonstration Agents' Association. A working organization was affected and plans discussed whereby the association could be helpful in promoting extension work in the state.

Miss Clara Waldron, of St. Clair county, was elected president; Miss Florence McElhenney, of Houghton county, vice-president, and Miss Helen Simonson, of Dickinson county, secretary-treasurer. The following committees were appointed:

Publicity.—Miss Marian Rogers, chairman; Miss Helen Simonson, Miss Blanche Clark, and Miss Coral Havens.

Fair.—Miss McElhenney, Miss Waldron, Miss Aurelia Potts, assistant home demonstration leader, and Miss Coral Havens, milk specialist.

Every Farmer Will Want This BIG FREE Book

This free book tells you everything you want to know about installing water systems to supply running water for house and barn—tells you how to figure capacity of water tanks—how to lay piping—irrigation tables, etc. This book also tells you about

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the pumps that are all their name implies. HUMPHRYES pumps are recognized everywhere as the ideal pumps for service and durability. Don't buy a pump until you have investigated the HUMPHRYES line at your dealers. He has a style and type of pump to meet any requirements from an ordinary cistern pump to power pump.

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Get posted on pumps and money saving water systems—this free book gives you just the information you need. Remember its free—your name on a postcard or letter brings it free and postpaid.

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The Michigan State Sanatorium-Training School For Nurses

Offers a two years course of special training in institutional Tuberculosis Nursing. A prescribed curriculum is followed. Applicants must be eighth grade graduates, and eighteen years of age. Allowance first year \$150.00 second year \$225.00 Board, room and laundry and uniform cloth furnished. Comfortable Nurses Home. Graduates are receiving from \$60.00 to \$85.00 per month in institutional work. For further particulars address, Superintendent of Nurses, Michigan State Sanatorium, Howell, Mich.

Good Reading

OFFER No. 118.

The Michigan Farmer, one year...\$1.00
Power Farming, one year 1.00
Chester-White Journal, one year 1.00

Total value\$3.00

All for \$2.00.

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"Reo" Cluster Metal Shingles, V-Crimp, Corrugated, Standing Seam, Painted or Galvanized Roofings, Sidings, Wallboard, Paints, etc., direct to you at Rock-Bottom Factory Prices. Positively greatest offer ever made.

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cost less; outlast three ordinary roofs. No painting or repairs. Guaranteed rot, fire, rust, lightning proof.

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FREE Samples & Roofing Book

Housewives August Calendar

School reopens in exactly one month, September 7. If new clothes must be got, plan for them now. If the old suits will do, look them over and sort out those which need a stitch.

Take care of blackberries and huckleberries. If you use the cold-pack method in canning these fruits use a medium thin syrup. To make, add two quarts of water to three quarts of sugar and boil five minutes. Sterilize all cans, tops and rubbers thoroughly before packing, and process-boil fifteen minutes.

Fruit done by the open kettle method will keep as long and as well as that done by cold-pack, and most housewives who are used to that method think it requires less time. Care must be taken to see that all utensils are thoroughly sterilized and only new rubbers are used. Do not boil the fruit until it is a mush, and can only two, or at most three, quarts at a time. A half cup of sugar to a quart of fruit is enough for these fruits. Let the fruit boil up well, stir down, being careful not to crush the fruit, let boil up again,

and seal at once in the hot, sterilized jars.

Blackberry jam is nicer if the seeds are removed. To make this way, look over berries, wash, put on stove with just enough water to prevent sticking, heat through, and then press through sieve. Add half as much sugar as you have fruit, by weight, cook one-half hour and seal.

Black currant jam is often pleasing to convalescents. Stem and wash the currants, crush slightly, add pound for pound of sugar and let stand over night. In the morning, boil one-half hour and seal.

Blueberry jelly is uncommon, but is popular with those who like a sweet jelly. It may be made as any jelly made from small fruit, using equal measures of sugar.

Primary election, last Tuesday, August 31. To nominate candidates for governor, lieutenant-governor, state senators and representatives, congressmen, all elective county officers except county commissioner of schools, to choose delegates to county convention.

MEMORY VS. IMAGINATION

"When my boy was only four years old, I began to punish him every time he told a lie. It took great persistence to cure him, but now he is the most truthful child you ever knew. You can depend upon his word every time." The father spoke with great pride, ignorant that the merry little lad next door who was the companion of his own sullen boy had also passed through three years of "romancing" but with no punishment for lying and consequently no unhappy memories to carry into later life.

Every little child passes through a mental stage when he finds it difficult if not impossible to distinguish between memory and imagination.—National Kindergarten Association.

CANNING CORN ON THE COB.

I would like to know the best method of preserving sweet corn. I have heard of packing the corn (on the cob) in a barrel and pouring in a brine. Do you know if this is satisfactory, and if so, how much salt is required?

A. W. C.

I have never heard of packing corn in a brine. The only method I have which is recommended by experts is cold pack. To can on the cob, remove husks and silk, blanch (plunge into boiling water), five minutes. Remove and plunge at once into cold water. Pack in sterilized jars, add one teaspoon of salt and one of sugar, fill with boiling water. When all the cans have been filled and entered into the canner, cover the canner and boil four hours. Remove, screw tops on tight, invert to see if they leak, and store in a dark place. Water in the canner should be kept an inch above the tops of the cans and be boiling all the time. Can off the cob the same way, cutting the corn off the cob with a thin, sharp knife after it has been blanched and plunged into cold water.

Most everybody likes ice cream and it is a good food for most anyone, too. Here is a very handy way to make without a freezer. Whip the cream, add sugar and flavoring. In freezing weather put outdoors in a covered dish. In warm weather pack in ice and salt. No stirring will be necessary. The following quantity will provide dessert for four: one cup cream, three teaspoons confectioner's sugar, and one teaspoon flavoring. A lard pail is a good dish to use for making and freezing.—Mrs. H. H.

A teaspoonful or more of strained honey in whipped cream instead of sugar makes a delicious substitute, gives the cream a fine flavor and also causes it to remain firmly whipped.—Mrs. J. J. O'C.

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Positively the Finest Flour Milled in America

The making of fine flour into bread—known for ages as the "staff of life"—is a more scientific process than most people realize. They take flour for granted. This can safely be done with

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"The Flour the Best Cooks Use"

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LILY WHITE has been the reliance of real home-making women for three generations. Countless women have made, and still are achieving, proud reputations for their skill at baking, by using this flour.

The choicest selection of wheat is used. It is subjected to numerous cleanings and scourings before being ground and milled. An astonishing amount of dirt and undesirable materials are eliminated. Completed, after close expert inspection at all stages, the flour is supremely fine, white, clean and beautiful. That is why it makes such delicious, palatable and enjoyable bread, biscuits and pastry.

Be a LILY WHITE FLOUR user. It is guaranteed without restriction.

VALLEY CITY MILLING CO.
GRAND RAPIDS, MICHIGAN

"Millers for Sixty Years"

Michigan Farmer Pattern Service

CATALOG NOTICE.

Send ten cents in silver or stamps for our up-to-date spring and summer 1920 catalog, containing 550 designs of ladies', misses' and children's patterns, a concise and comprehensive article on dressmaking, also some points for the needle (illustrating thirty of the various, simple stitches) all valuable hints to the home dressmaker.



No. 3269. Girls' Dress. Cut in four sizes, 4, 6, 8 and 10 years. A six-year size will require 3½ yards of 36-inch material. Price 12c.

No. 3271. Child's Dress. Cut in five sizes, 1, 2, 3, 4 and 5 years. A two-year size will require 2½ yards of 36-inch material. Price 12c.



No. 3268—Junior Dress. Cut in three sizes 12, 14 and 16 years. A 14-year size will require 4½ yards of 36 inch material. Price 12 cents.

No. 3278—A Becoming Dress. Cut in four sizes: 8, 10, 12 and 14 years. A 12 year size will require 4½ yards of 40 inch material. Price 12 cents.

No. 3264—Ladies' Undergarment. Cut in four sizes: Small, 32-34; Medium, 36-38; Large, 40-42; and Extra Large, 44-46 inches bust measure. A Medium size will require 3½ yards of 36 inch material, with 2½ yards of flouncing 15 inches wide. Price 12c.

No. 3263—A Comfortable Apron. Cut in four sizes: Small, 32-34; Medium, 36-38; Large, 40-42; and Extra Large, 44-46 inches bust measure. A Medium size will require 4½ yards of 36 inch material. Price 12 cents.



No. 3273. A Pretty Dress. Cut in five sizes, 4, 6, 8, 10 and 12 years. A 10-year size will require 2½ yards of 27-inch material for the guimpe, and three yards for the dress. Price 12c.

No. 3270. Girls' Blouse and Skirt. Cut in four sizes, 8, 10, 12 and 14 years. A 12-year size will require six yards of 36-inch material for the blouse and skirt of one material. The skirt alone requires three yards of 36-inch material. Price 12c.

Summer Care of Sheep

NO one thing contributes more to the profit of sheep raising than a safe and sane system of handling the flock during the summer months. If the sheep are healthy and furnished with the kinds of feed best adapted to our corn belt farms they will keep in good flesh condition, the lambs will make rapid gains, the wool will make good growth and they will pay good profits. Almost any good farmer can succeed with sheep during the fall, winter and spring months. Then the chief problems are housing and feeding, but throughout the great corn belt states and further south, plans must be made to guard against parasite infection.

While these stomach and intestinal parasites can be dislodged by gasoline, coal tar creosotes and standard vermifuges, the dosing involves risk and expense and is seldom effective in cleaning up the pests. Successful shepherds agree that prevention is not only better than cure, but that is the only way to secure an unchecked growth on lambs.

English shepherds rely on change of pasture and liberal grain rations to carry the lambs past the danger point. Good feed and common salt are the best remedies. England has a climate that is more favorable to parasites than the corn belt, but by providing clean forage and dealing out grain at critical times the lambs do not suffer from this menace. It is time for corn belt farmers to study the problem of guarding against these parasites instead of dallying with losses that are consuming the profits from their flocks.

To provide safe pastures for his ewes and lambs the corn belt farmer should sow oats and peas, clovers, grasses, alfalfa, rape, rye, vetch and the like and keep the fields fenced so that the lambs may graze ahead of the ewes and change the pasture every eight or ten days in extremely warm weather and every two weeks when the weather is cooler. In this way the eggs of the parasites that are discharged on the grass in the dung of the ewes do not have time to hatch before the lambs are changed to a clean field. By taking these precautions during the period from May 15 to September 15, there will be little danger of the lambs becoming infected. It is during the warm weather that the worms develop fast and the lambs become infested.

If the ewes and lambs are kept confined in small yards at night take care to keep them in a shed or yard where no grass grows so that the excrement will not infect the grass where the lambs will graze. Doing this and providing clean pastures will secure approximate, if not complete, immunity from the injury of parasites. Information as to the habits and characteristics of these parasites and methods of safeguarding the flock may be obtained by sending to the Department of Agriculture at Washington.

Salt should be where the sheep can have access to it at all times. Many experienced shepherds mix salt with air-slaked lime, a little more lime than salt, to prevent indigestion and bloat when the sheep are changed to new pastures. On some farms tobacco stems are dipped in a strong salt brine and no additional salt is given to the sheep. This helps to control parasitic infection and is beneficial to the ewes and lambs. In some parts of the south tobacco stems are fed quite liberally and the ewes and lambs are comparatively free from internal parasites.

If the ewes and lambs have good pasture and forage crops it will seldom pay to feed any grain feed, unless the lambs are being conditioned for the summer market. Pumpkins planted in the corn field make an ideal supplement for the fall pastures. Rape sown

by itself or with corn will furnish ideal fall pasturage for the ewes and lambs. Soy beans sown with corn have given excellent results in many feeding experiments. It is very important that both the ewes and lambs have plenty of good feed during the last summer and early autumn. The ewes will breed more regularly if they are in good condition at mating time, and the lambs will make better gains when fed a grain ration during the late fall and early winter. Pasture crops make cheaper gains than grain feeds, consequently every effort should be made to bring the ewes and lambs through the pasture season in good condition.

CATTLE FEEDING METHODS.

SEVERAL successful Iowa cattle feeders have been relating their experiences in preparing beef cattle for the market and the methods used, and in some things there is general agreement. For instance, all agree that stock feeders should put up as much silage as possible, and it seems to be pretty well agreed that concentrated feeds are advisable in fattening high-class beefs. Another item in which they all agree is that great care should be exercised in buying stock cattle, and that while poorly bred stock should be avoided, it is unsafe to pay fancy prices, although there are stockmen who make it pay. One expert says he never feeds his cattle during the winter, but supplies plenty of roughness at that time, and when the spring opens places them on full feed. He is in the habit of buying stock cattle in January or February and begins feeding intensively in March or April. Another stockman follows the plan of sowing a mixture of timothy, clover and bluegrass to obtain the best possible hay for his stock. Another highly successful feeder owns a good-sized tract of straight timothy meadow, but he never makes it into hay until the plant is in its second bloom.

THE HOG MARKET.

TAKING into consideration the hog supply and demand and the future outlook, there seems to be no reason why the fortunate owners of thrifty, healthy young hogs should take a pessimistic view of the market. The combined receipts in the seven principal western markets for the year to late date were only 14,380,000 hogs, comparing with 16,485,000 for the corresponding time last year and 15,220,000 two years ago, and it is evident that there is no excessive supply left in the states comprising the corn belt. Like cattle, the ruling market prices for hogs are much below those paid in recent years, but they are far higher than in years prior to the war. One year ago the best hogs sold on the Chicago market at \$23.30 per one hundred pounds, two years ago at \$18.95, three years ago at \$16.30, four years ago at \$10.15 and five years ago at \$7.90, with common lots fetching as low as \$6.00.

The single disturbing feature is found in the falling off in the exports of provisions because of the unsatisfactory condition of foreign exchange. Earlier in the year such exports were running far larger than a year earlier, but now this is reversed. During a recent week the exports from North America included 7,723,000 pounds of lard, these comparing with 10,472,000 pounds a week earlier and 25,431,000 pounds for the corresponding week last year. For the same week the exports of cured hog meats amounted to 13,017,000 pounds, comparing with 9,700,000 pounds a week earlier and 73,347,000 pounds a year ago.

Prices for provisions are still very



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ARE you taking the long chance of your barn being struck by lightning, your stock or family killed, your barn and equipment destroyed?

If your barn is not properly rodged, you are taking an awful and unnecessary risk. Most of the barns that burn are set afire by lightning. Insurance and Government statistics prove that a barn properly rodged cannot be burned by lightning.

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Wildwood Farms Angus

Effies Lass 238203 sold on May 6th for \$7100. She was sired by Black Monarch 3rd. We are offering for sale Editor of Wildwood 29505, a full brother in blood lines to Effies Lass also four more choice bulls which are old enough for service and sired also by the champion show and breeding bull Black Monarch 3rd.

Our herd is under State and Federal Supervision.

WILDWOOD FARMS ORION, MICHIGAN

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Imported Herd Bulls
ELCHO OF HARVESTOWN (45547)
by Jason of Ballindalloch (38048)
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Three registered Guernsey bull calves, May Rose breeding, closely related to Spottwood Daisy Pearl, Dolly Dimples, Langwater Nancy, Langwater Hope, Langwater Daisy and imported Itchen Daisy 3rd, cows that have the higher milk and butter fat production of the breed. Calves sired by Albany's King of Anna Dean Farm; his grand dam Spottwood Daisy Pearl, Alec Harper, Edward Lowe, Robinson Rd. Grand Rapids, Mich.

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For sale: Choice of two bulls two and three years old; also bull calves three to twelve months. Registered. Splendid individuals and breeding. Prices right.
WHITE BROTHERS, R. 2, Box 20, La Porte, Indiana.

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

GUERNSEYS, Federal Inspected. Headed by G only son of Carrie of Hillhurst exchampion of A. A. class, 7 bulls under 10 mos. old and any 10 of 25 reg. females for sale. Write or come and see. G. W. & H. G. Ray on Electric R.R., 4 mi. east of Albion, Mich.

Registered Guernseys a very fine show calf is out of a cow milking 40 lbs. a day, the price will surprise you, better get his pedigree.
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GUERNSEY BULL CALVES whose sire's dam made 19,460.20 milk, 909.05 fat. Their mother's sire's dam made 15,109.10 milk, 778.80 fat.
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Containing blood of world champions.
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Guernseys Five pure bred Guernsey Bulls. Write your requirements. WALTER PHIPPS FARM, Geo. E. Currie, Mgr., 80 Alfred St., Detroit.

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Holstein Cows First as Money Makers

The day is passing when milk can be produced at a profit by a herd of mongrel cows. Look the fact in the face and study the methods of progressive dairymen.

Wherever the interests in dairying is most active and most intelligent, there the purebred Holstein stands first. And every month adds to her prestige as a money maker.

If you mean business, why not get your start before the demand increases still more?

Send for Free Illustrated Booklets.

THE HOLSTEIN-FRIESIAN ASSOCIATION
164 Hudson Street
Brattleboro Vermont.

LONG DISTANCE HOLSTEIN BULL CALF
Born Dec. 24 1919. Seven close up dams average above 1200 lbs. butter and 24,000 lbs. milk in 1 yr. His dam untested \$100. A. Fleming, Lake, Mich.

high, although they have had a big fall within a year. Within a short time pork has sold for \$25.20 a barrel, comparing with \$55.75 a year ago, and similar reductions have taken place in prices for lard and other products. Unfortunately for consumers, retail butcher shops fail to reduce prices accordingly. There is a large call for fresh pork products, and their consumption is larger than might be expected in view of their dearthness.

UPPER PENINSULA FARMERS' ROUND-UP.

PLANS have been completed for the Second National Farmers' Round-up at the Upper Peninsula Experiment Station at Chatham, Michigan, on August 11-12. Superintendent D. L. McMillan, of the Chatham Station, advises us that this round-up promises to be the greatest agricultural meeting that has ever been pulled off in the upper peninsula. A large number of farmers are expected to attend from every county in the upper peninsula, and a few from lower Michigan and Wisconsin. All the different agricultural organizations in the upper peninsula are cooperating with the station in putting on the program. We think probably it is their plan to put on a two-days' summer camp for their members. This camp is to be situated on the station farm.

The first day with the boys will be a day of special instruction in live stock and crops work to finish up the preliminary work that has been done with the different clubs in their respective counties preparatory to take their final live stock judging work on the following day. As a special inducement for very careful work, valuable live stock prizes have been offered by the station. The team winning the first prize in all the live stock work will be sent to Detroit to the State Fair to compete with other clubs in live stock work there.

The Home Demonstration Agents and the Girls' Club Leaders are planning a special program for the two days for the women and girls. The county agents, under the direction of Mr. J. W. Weston, have planned a complete program for their work.

Alger county is making extensive preparations to entertain the large crowd that is anticipated, to a big barbecue dinner for the noon hour of the twelfth. They have ordered an eight-hundred-pound ox for the occasion and Mr. Deagon, the prison chef, will have charge of the feed. Their menu is meat, baked beans, mashed potatoes, buns, sweet corn, ice cream, and coffee.

During the forenoon, stump blasting demonstrations will be in operation, also dairy demonstrations in charge of Mr. J. A. Waldron, dairy specialist from the college, sheep and hog demonstrations in charge of Professor George Brown, crops demonstrations in charge of G. W. Putnam, Crops Experiment Station, and Home Economics Work in charge of Home Demonstration Leaders.

Directly after the big barbecue dinner a speaking program will be given. On this program are President F. S. Kedzie, Dean R. S. Shaw, Director R. J. Baldwin, Hon. Jason Woodman, Dr. Eben Mumford, Mr. R. A. Turner, of the Michigan Agricultural College, and a handicraft demonstration given by the McMillan Handicraft Club. On the night of the eleventh the Alumni Association are planning a feed and a big social open air meeting in the experiment station grove.

NEW MICHIGAN VENTURE.

IT is learned that just as soon as it becomes possible to make purchases of wire fencing in large amounts, the packing firm of Morris & Co. will be-



Larro-feed
THE READY-RATION FOR DAIRY COWS

Larro Brings Prosperity to the Dairy Farm

The dairymen who feed Larro are unusually successful because they are operating on a certainty.

There is no chance involved in feeding Larro because the Larro guarantee reproduced below means just what it says—you get more milk or you get your money back.

This is the same guarantee of more milk which has stood back of Larro for seven years. To the man who is not yet a Larro user it is an absolute promise of better results from his cows—to the veteran Larro user it is double assurance that Larro today is the same as it was in the beginning—that its quality will never be changed.

If Your Local Dealer Does Not Carry
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DEALERS: Larro is sold on a basis which means constantly increasing sales for you. Write for proposition.

Larro-feed Guarantee

Feed 200 pounds Larro-feed to any one cow then if your own figures do not show that she gave more milk on Larro-feed or if for any other reason you are not entirely satisfied, return your empty sacks and unused Larro-feed and get every cent of your money back.

Dealers selling Larro-feed are authorized to carry out the terms of this guarantee.

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CHESTERS two good fall gilts bred to a boar of Wildwood Prince Jr. breeding for Sept. farrow; spring pigs F. W. ALEXANDER, Vassar, Mich.

Raise Chester Whites

Like This
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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. & Chester White Swine
Strictly big type with QUALITY. Spring pigs own ready to ship. Never had better ones. Remember I was breeding Big Type 20 years ago. They have a right to be big. Write us for prices. NEWMAN'S STOCK FARM, R. I. Mariette, 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,
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O. I. C's. One Sept. boar. March farrowed pigs of either sex. C. J. THOMPSON, Rockford, Mich.

O. I. C's A few choice late fall and winter boars, also a fine two year old boar. WEBER BROS., R. No. 2, Royal Oak, Mich.

O. I. C. Gilts bred for July and Aug. farrow. Also spring farrowed pigs. G. P. ANDREWS, Dansville, Mich.

O. I. C. Gilts bred for Sept. farrow and spring pigs. F. O. BURGESS, R. 3, Mason, Mich.

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

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

O. I. C's 5 last fall boars and 15 last fall gilts bred for fall farrow. Weight 230 to 325 lbs. extra good stock. Also this spring pigs not akin. 1/2 mile west of depot. Citizens phone 124. Otto B. Schulze, Nashville, Mich.

O. I. C's Spring pigs ready for shipment. Splendid stock. I ship C. O. D., pay express and register in buyers name. CHAS. KING, Melvin, Mich.

MILLER Meadow's L. T. P. C. boars all sold. Gilts sired by General Jones and bred to our young boar Alaska, address CLYDE WEAVER, Ceresco, Mich.

FOR SALE Registered Big type Poland China gilts bred for Sept. farrow, weighing 225 lbs. for \$60, spring pigs all sold, guarantee satisfaction. DORUS HOVER, Akron, Mich.

L. S. P. C.
One 400 lb. sow and 7 pigs by side, price \$100.00. One 275 lb. gilt and 6 pigs by side, price \$85.00. Two choice boars. H. O. SWARTZ, Schoolcraft, Mich.

Big Type Poland Chinas
Our herd is representative of the best in Big Type. The \$40,000.00 "The Yankee", the \$50,000.00 "The Clansman" and the priceless "Giant Buster" are all represented. We aim to keep up-to-date blood lines and only quality stuff. Boars for sale now. PUBLIC SALE OCT. 26th. WESLEY HILE, R. 6, Ionia, Mich.

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

Bred Sow Sale at Fairgrounds
August 5th. Carey U. Edmonds, Hastings, Mich.

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

BOARS! Oh Boys!
Sons and grandsons of the Mighty Giant Buster. The big boned useful kind. Priced for a quick sale. JNO. C. BUTLER, Bell Phone, Portland, Mich.

Big Bob Mastodon pigs takes the cake, book your order now. Fall boars and gilts sired by a grandson of Disher Giant, open or bred to Big Bob for Sept. 23 yearling sons. O. E. GARNANT, Eaton Rapids, Mich.

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

Big Type Poland all sold out. Watch this ad for further announcements. Breeding stock for sale in season. L. L. CHAMBERLAIN, Marcellus, Mich.

LEONARD'S B. T. P. C. bred sows all sold. Order booked for boar pigs at weaning time from Mich. Champion Herd. E. R. Leonard, R. 3, St. Louis, Mich.

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

Lindhurst Poland Chinas
Stock for sale at all times. Public Sale Oct. 23. WM. H. LIND, Alto, Mich.

6th ANNUAL P. C. Bred Sow Sale March 1920. For particulars write W. J. HAGELSHAW, Augusta, Mich.

LARGE TYPE P. C. SWINE. One yearling boar, one fall yearling boar, fall pigs, a few more bred sows. R. W. Mills, Saline, Mich.

Poland China Brood Sows Bred for May and June farrow, \$50.00. Mapewood Stock Farm, Allegan, Mich.

B. T. Poland China pigs ready for shipment sired by Orange Buster. White Points Club. Joseph L. Hickey, sales mgr., R. 3, Vermontville, Mich.

HAMPSHIRE
1914 - - - - - 1920

Choice Spring boars, popular breeding. Booking orders for fall pigs. All stock Cholera Immuned and guaranteed Breeders. Satisfaction guaranteed.

STEUBEN'S HAMPSHIRE FARM
R. 3, Angola, Ind.

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

Large Type Poland Chinas nothing for sale at present. Spring pigs doing fine. A. A. FELDKAMP, R. 2, Manchester, Mich.

BACON The highest priced pork product. Yorkshires are ideal bacon hogs. For sale, spring pigs, both sexes. WATERMAN & WATERMAN, Packard Rd., Ann Arbor, Mich.

Hampshires get your boar pigs, now a few bred gilts left new blood lines of quality. JOHN W. SYNDER, R. 4, St. Johns, Mich.

HORSES
BAY MARE

For Sale, sound and right in every way, weight about 550 lbs. Must be sold at once come and see her or write L. J. Hamlin, 495 Hurlbut Ave., Detroit, Mich.

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

gin stocking up a mammoth tract of land in the great cut-over region of Michigan near Cadillac. The firm has bought about 18,000 acres of stumpage lands and plans on purchasing 10,000 acres more, it is stated by E. V. Morgan, who is manager of Morris & Co.'s Michigan ranch interests. It is the plan to fence the tracts of land as quickly as the wire fencing can be purchased. The plan at first was to stock the lands with sheep and build up a flock of possibly more than 100,000 head. The shortage of wire has caused a change in the plan, and it is now likely that the tracts will be first stocked with cattle.

Veterinary.

CONDUCTED BY DR. W. C. FAIR.

Bunches on Body.—My eight-year-old mare is troubled with bunches on body, which are much like the result of bee-sting. She seems to be in good health. H. W. H., Holland, Mich.—Give her one dram of potassium iodide in drinking water twice a day. Feed her plenty of grass and perhaps less grain.

Rheumatism—Soreness.—Am a subscriber to the Michigan Farmer and always take quite an interest in the veterinary department, and often find useful information about stock. Have a cow twelve years old that showed some soreness before she was turned out to grass, but now she is worse, especially since she was bred. I fed her ensilage with almost ripe corn, before she was turned to pasture. She is milking fairly well, but is very stiff. P. A. M., Petoskey, Mich.—Give her a teaspoonful of nitrate of potash in feed or in drinking water twice a day. Are you sure that she is not foot-sore? If so, stand her in wet clay two hours daily.

Sow Fails to Come in Heat.—I have a sow that was bred February 7; has not been in heat since, but has not had any pigs. Can you tell me why she failed to breed? A. E. S., Lowell, Mich.—There are many causes why she might not get with pig, I don't know which. It will not pay you to keep her for breeding purposes.

Bacterial Navel Infection.—We have some little suckling pigs troubled with joint swellings, causing considerable lameness. H. H. H., Moscow, Mich.—The sow's udder and navel of young pigs should be cleaned at farrowing time; furthermore, the sow should be kept in a clean place; if so, the young pigs would do better. Paint swollen joints with tincture of iodine three times a week. Give the sow ten grains of sodium salicylate at a dose twice a day.

Open Joint—Infected Joint.—About two weeks ago my two-year-old colt got kicked on stifle joint, the joint soon commenced to discharge joint oil, now considerable pus comes from wound. Our Veterinarian tells me the colt will always have a stiff joint. G. F. H.—Occasionally, paint joint with tincture of iodine and give colt good care is about all that can be done. Your Veterinarian should irrigate joint thoroughly, using a solution of biniodide of mercury; this might destroy the "joint" infection.

Lamenitis.—Two years ago I purchased a black gelding that was some footsore or tender in both fore feet and instead of him growing better, he is worse. He dislikes to go down hill. When backing, he drags fore feet and cripples when walking on cobblestones. F. J. D.—Stand him in wet clay two hours a day, apply wide webbed shoes with plenty rolling motion. Chronic foot soreness is usually incurable, but remember the hind feet are seldom affected.

Cow Fails to Come in Heat.—Have a cow that fails to come in heat. What shall I give her? A. B.—Give her half a dram of ground nux vomica and one dram ground capsicum at dose in feed two or three times a day.

Glandular Swelling.—Have calf six weeks old with moveable bunch high up in neck. Will this bunch make the meat unfit for food? W. P. K.—Flesh fit for food. Apply tincture of iodine daily and it will go away.

Twin Calves—Freemartin.—My Holstein cow has twin calves, one a heifer calf, the other a bull calf. Is either calf good for breeding purposes? J. M.—The heifer will not breed, the bull will doubtless prove to be a stock getter, but it is usually a mistake to keep them for that purpose.

Closing Out Auction of Bloss Bros. Sophie's Tormentor Jersey Cattle

Swartz Creek, Mich., (on Grand Trunk Ry.)

Thursday, Aug. 19, 1920

the day before the Michigan Jersey Cattle Club meeting at East Lansing.

There are 40 head in the sale, the herd is headed by Champion Torono's Son 7th whose brother sold for \$7500, and is the sire of 20 R. of M. daughters.

Besides his sons and daughters there are a number of cows by a son of Hood Farm Pogos 9th and others close up to Foxhall's Jubilee, Interested Prince and Rieter's Jersey Lad. Send for a catalog.

Col. D. L. Perry, Auct., Columbus. O.
J. V. Cotta, Sale Mgr., Crawfordsville, Ind.

O. I. C. SOWS FOR SALE

One of the Best Herds in Michigan

Young sows due to farrow in September. Spring boars ready for shipment. Choice individuals of BIG TYPE breeding. I ship C. O. D. pay express and register in buyer's name.
J. CARL JEWETT, R. 5, Mason, Michigan.

OUR HERD SIRE Model King Segis Glista

By a 30 lb. son of Lakeside King Segis Alban De Kol. His dam Glista Fenelle 32.37 lbs. Her dam Glista Ernesline 35.96 lbs. His three nearest dams average over 33 lbs and his forty-six nearest tested relatives average over 30 lbs. of butter in seven days. Write for prices on his sons.

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

Reg. Holstein Bull calf born Dec. 19, a beauty ½ white reg. and del. for \$100, would take Liberty Bond.
J. R. HICKS, St. Johns, Mich.

-Winn Wood Herd-

Flint Maplecrest Boy No. 166974
Has Made Good

one of his SONS will raise your herd to a higher standard and better production we have them for sale at moderate prices.

A Few Females For Sale

—OUR JUNIOR HERD SIRE—

Sir Ormsby Skylark Burke No. 264966
A brother to the world champion cow over all breeds.

DUCHESSE SKYLARK ORMSBY
Michigan's best bred Ormsby bull.
Better get on the list for one of his sons out of a daughter of Flint Maplecrest Boy.

JOHN H. WINN, (Inc.)

Roscommon, Michigan

May Echo Sylvia Bull calf. 2 crosses to May Echo Sylvia, and 3 crosses to King of the Pontiacs, Dam a 2 yr. old daughter of a 29 lb. cow. 6 of his nearest tested dams average 34.49 lb. of butter and 750 milk.
C. H. GIDDINGS, Gobleville, Mich.

"TOP NOTCH" HOLSTEINS

McPHERSON FARMS COMPANY
has raised many great milk cows:

1	"	"	342 lbs. milk in 7 days
1	"	"	3394 lbs. milk in 30 days
1	"	"	120 lbs. milk in 1 day
1	"	"	811 lbs. milk in 7 days
1	"	"	over 10000 lbs. milk in 100 days
1	"	"	105 lbs. milk in 1 day
1	"	"	606 lbs. milk in 7 days
1	"	"	2669 lbs. milk in 30 days
1	"	"	100 lbs. milk in 1 day
1	"	"	20854 lbs. milk in 1 year
1	"	"	100 lbs. milk in 1 day
1	"	"	558 lbs. milk in 1 day
1	"	"	18976 lbs. milk in 1 year

Others under test are making large milk records.
A fine lot of young bulls from 3 months to 2 years old for sale. Get a "milk" bull, and increase milk production in your herd.

Our herds are under U. S. supervision.
McPHERSON FARMS CO., Howell, Mich.

HOLSTEIN BULL CALVES FOR SALE

From dams with good records.
BULL CALVES Sired by 45 lb. BULL.
BULL CALVES Sired by 34 lb. BULL.
BULL CALVES Sired by 33 lb. BULL.
PRICES VERY REASONABLE.
Privilege of return if not satisfied.

A. W. COPLAND, Birmingham, Michigan.
Herd under State and Federal Supervision.

31.06 lb. butter 571.46 lb. milk in 7 days, is average of 9 nearest tested dams of 2 mo. old bull. Price \$150. Terms. M. L. McLAULIN, Redford, Mich.

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

CLUNY STOCK FARM

A Semi-Official Bred Bull to Head Your Herd
Maplecrest Application Pontiac No. 132652, heads Our Herd

His dam's record is 1344.3 lbs. butter 23,421.2 lbs. milk in 365 days, and 35,103 lbs. butter and 515'6 lbs. milk in 7 days.

One of his sons from our good record dams will carry these great blood lines into Your Herd.
For Pedigrees and Prices write to R. Bruce McPherson, Howell, Mich.

Holsteins of Quality

Fifteen High Grade Holstein Cows For Sale
E. A. HARDY, Rochester, 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.

Increase the Efficiency of your DAIRY HERD

by using a Registered Holstein Sire

We have bulls of all ages listed at reasonable prices.

Also grade and pure-bred cows and heifers.

Michigan Holstein-Friesian Asso.
Old State Block, Lansing, Mich.

BARGAIN PRICES on pure bred Holstein heifers and young bulls ready for service.
JOSEPH H. BREWER, Grand Rapids, Michigan

Registered Holstein cows and heifers due to freshen R. this fall. Some bred to a 42 lb. bull. Price \$20 to \$400 each.
B. B. REAVEY, Akron, Mich.

Entire Herd of 10 Reg. Holsteins for \$2500. 7 cows, 2 heifers, 1 bull.
GEO. B. PARDEE, Galien, Mich.

For Sale 1 Reg. Holstein bull calf, born Dec. 2, 1919. price \$100.00. Satisfaction guaranteed. Write to LOUIS LIETAERT, Tower, Mich.

HEREFORDS

20 Cows and Heifers of popular breeding for sale also bulls not related.

ALLEN BROS. MICHIGAN
PAW PAW, MICHIGAN

Herefords. Just purchased 3 new herds, now have 150 head; we offer you anything desired either sex, horned or polled, any age. Priced reasonable.
THE McCARTHY, Bad Axe, Mich.

Herefords: 4 Reg. bulls 5 to 8 mo. old. Prices reasonable for quick sale visitors welcome.
Reed Schultz, R. 3, Homer, Mich.

The Wildwood Farm

Jersey Cattle, Majesty strain, Herd on State accredited list, R. of M. testing constantly done. Bulls for sale. ALVIN BALDEN, Phone 145-5, Capac, Mich.

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

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

ILLIE Farmstead Jerseys—A few heifers bred to freshen soon. Heifers bred to freshen next fall, 3 cows, R. of M. bull calves. C. C. Lillie, Coopersville, Mich.

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

For Sale, Jersey bull ready for service sired by Flying Fox's Gay Lad. Dam record 472.5 lbs. butter 9875 lbs. milk. Notten Farm, Grass Lake, Mich.

Registered Jersey Cows bred heifers and bulls.
C. A. BRISTOL, Fenton, Mich.

BIDWELL SHORTHORNS

a bull that will put weights on your dairy calves—the difference will soon pay for the bull. Now selling good Scotch and Scotch-topped yearlings, reasonably priced. A roan, senior yearling, a Missile of Villager breeding, a herd bull prospect, Federal Test.

BIDWELL STOCK FARM;
Box D; Tecumseh, Michigan

We Now Have a number of choicely bred scotch females of any age for sale also three bulls from 6 to 18 months old. Visit our herd before buying.
NORMAN CARR, Bad Axe, Mich.

Richland Stock Farms

Home of the Michigan Champions.
Shorthorn Sires in Service:

IMP. Lorne, IMP. Newton Champion, Sterling Supreme. Why not buy a young bull to head your herd that carries the blood that is making Shorthorn History. Only a few real headers left. Write your wants.

C. H. PRESCOTT & SONS, Tawas City, Mich.

Shorthorns New list 39 bulls, 49 females. Central Mich. Shorthorn Asso. write OSCAR SKINNER, Sec., Gowen, Mich.

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

St. Joseph Valley Shorthorn Ass'n has for sale males and females of all ages and best breeding.
AARON HAGENBUCH, Sec-treas. Three Rivers, Mich

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

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

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

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

Shorthorn Bulls Eight to ten months old of Scotch and Scotch Topped breeding. Lawrence P. Otto, Charlotte, Mich.

Shorthorn bull registered age 18 mos. Red, little white. Kind, peaceable and an exceptionally good individual. Write or come and see him. Roy W. Weinberg, Vicksburg, Mich. Bell phone 188F4.

Twenty-one Head of Registered Shorthorn cattle for sale. MRS. B. C. WHITAKER, Chelsea, Michigan. Bell Phone.

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

HOGS

Berkshires size with quality is our specialty. Write your wants to M. G. MOSHER & SONS, Onseo, Mich.

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

Brookwater Duroc Jerseys

FOR SALE
Bred Glits of Choice Breeding

A few good ones left. This is your opportunity to buy at ROCK BOTTOM PRICES

also—
READY FOR SERVICE BOAR

Brookwater Durocs are the real pork producers and the best bred hogs in Michigan.

COME TO FARM OR WRITE—MAIL ORDERS A SPECIALTY

BROOKWATER FARM
ANN ARBOR, MICH.

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

DUROCS WITH QUALITY

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

Phillips Bros, Riga, Mich.

Duroc Jerseys Well bred. Correct type of all ages for sale, guaranteed right.
W. E. BARTLEY, Alma, Mich.

Duroc spring pigs, fine boars direct from H. W. Mumford (Brookwater Satisfaction). Dam (Brookwater Lucy Wonder) fine large, stretchy fellows \$80 each.
Ralph P. Sheman & Sons, So. Haven, Mich.

Duroc Sows and glits bred to Walt's King 29499, who has sired more 1st and 2nd prize pigs at the State Fair in last 2 years than any other Duroc boar. Everyone will be a money maker for the buyer. Cat. and price list.

NEWTON BARNHART, St. Johns, Mich.

Thos. Underhill & Son,

Salem, Mich. Breeders of Reg. Duroc Jersey swine. Watch for our sale adv. in Mich. Farmer, July 24 issue, of bred sows, bred glits, open glits and boars.

OAKWOOD FARM DUROCS

We can furnish you with anything from a weanling pig to a boar of herd heading caliber at reasonable prices. Your inspection and correspondence is solicited.
RUSH BROS., Romeo, Mich.

12 Choice Duroc glits bred to farrow July and Aug. ust. Daughters of Michigan Cherry Col. bred to Jacks Cherry Oriob King Number 169259. Son of the \$10,000.00 champion Jacks Orion King 2nd. All large type, heavy bone glits, 250 to 300 lbs.

THE JENNINGS FARM, R. 1, Bailey, Mich

MICHIGANA FARM DUROCS

Breeding Stock For Sale
O. F. FOSTER, Mgr., Pavilion, Mich.

DUROC JERSEYS
E. D. HEYDENBERG, Wayland, Mich.

Am Selling Durocs August 4th. Send for catalog.
W. C. TAYLOR, Milan, Mich

The World's Champion

big type O.I.C's. Stock of all ages for sale. Herd headed by Calloway Edd, the World's Champion O. I. C. boar assisted by C. C. Schoolmaster. Grand Champion boar of Michigan, New York and Tennessee state fairs. Also, C. C. Giant Buster, undefeated Senior boar pig wherever shown and Grand Champion of Oklahoma state fair. Get our catalogue of Crandell's prize hogs, Cass City, Mich.



GOMBAULT'S CAUSTIC BALSAM

A safe, speedy and
positive cure for

Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a HUMAN REMEDY for Rheumatism, Sprains, Sore Throat, etc., it is invaluable. Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.75 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address THE LAWRENCE-WILLIAMS COMPANY, Cleveland, Ohio.

Stop Losing Calves

Treat Your Herd the Roberts Way
Easy to Apply—Sure Results
Successful for 30 Years

YOU CAN
**Stamp Abortion Out
OF YOUR HERD AND
Keep It Out**



ASK FOR
"The Cattle Specialist."

Sent free on request. Answers every question pertaining to Abortion in Cows. Tells how to treat your own herd at small expense. Write

DR. DAVID ROBERTS
VETERINARY CO., Inc.
640 Grand Ave., Waukesha, Wis.

THICK, SWOLLEN GLANDS

that make a horse Wheeze, Roar, have Thick Wind or Choke-down, can be reduced with



ABSORBINE

also other Bunches or Swellings. No blister, no hair gone, and horse kept at work. Economical—only a few drops required at an application. \$2.50 per bottle delivered. Book 3 R free. ABSORBINE, JR., the antiseptic liniment for mankind, reduces Cysts, Wens, Painful, Swollen Veins and Ulcers. \$1.25 a bottle at dealers or delivered. Book "Evidence" free.

W.F. YOUNG, INC., 268 Temple St., Springfield, Mass.

NEWTON'S FOR HORSES, CATTLE, HOGS.

24 YEARS SALE
Cures Heaves by correcting the cause—Indigestion. Prevents Colic, Staggers, etc. Best Conditioner and Worm Expeller. Three large cans guaranteed to cure Heaves or money refunded. \$6.50 and \$1.50 per can (includes War Tax). At dealers or mail. Largest packages. Dose is small. Cheapest to use.

THE NEWTON REMEDY COMPANY, Toledo, Ohio



MINERAL HEAVE COMPOUND CURES HEAVES

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

FOR SALE

Four 8-16 Mogul Tractors
Three 10-20 Mogul Tractors
One 8 H. P. Engine on trucks
One 10 H. P. Engine on trucks
All in first class condition at extremely low prices. For particulars write The Auto Sales Co. Owosso, Mich.

SHEEP.

Put Your Faith

in better breeding stock. For the best in Shropshire and Hampshire Rams write or visit KOPE-KON FARMS, S. L. Wing, Propr. Coldwater, Mich. See our exhibit at the Ohio and Mich. State Fairs.

Idle Wild Stock Farms Shropshire yearling rams from prize winning stock. Make your selection early. Cliff Middleton, Proprietor, Clayton, Mich. R. 3.

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

Cotswolds yearling rams, ram lambs, Cotswolds ewes all ages sired by Oana. A. M. BORTEL, Britton, Mich.

CONSOLIDATED SCHOOLS.

(Continued from page 142).

munity gatherings. In one such school in upper Michigan besides patriotic and social meetings, two different denominations hold Sunday School, Catholic services are held twice a month, and a Methodist minister preaches there regularly. Many more benefits of the consolidated school might be described. They are not theories or imaginings. However, we compare the two systems the consolidated school is far the best. Why then should we wait for a few districts or townships at a time to adopt the system? Some form of legislation which would establish consolidation in every county in the state would hasten the day of better schools. Many of our voters say: "Yes, it's a fine thing, but it costs more than the old way." Yes, it costs more, of course, but the returns are so much more. Considering everything, the cost is not so great either. Anyway, can we afford not to do this for our boys and girls whom we wish to keep on the farm to take our places in a few years? Farming today is not what it was in our grandfather's time and the agriculture of tomorrow will not be what it is now. Let us give our boys and girls the practical knowledge and training they need to compete in the world of scientific farming which they will enter. Let us educate them to a whole-hearted acceptance of the Country Boys' and Girls' Creed, which let me quote below, and decide in our own minds at least "we must have consolidated schools." Following is the "Country Boys' Creed."

"I believe that the country which God made is more beautiful than the city which man made; that life out-of-doors and in touch with the earth is the natural life of man. I believe that work with nature is more inspiring than work with the most intricate machinery. I believe that the dignity of labor depends, not on what you do but how you do it; that opportunity comes to a boy on the farm as often as to a boy in the city; that life is larger and freer and happier on the farm than in the town; that my success depends, not upon my location but upon myself; not upon my dreams but upon what I actually do; not upon luck but upon pluck. I believe in working when you work and in playing when you play, and in giving and demanding a square deal in every act of life."

GROWING DEMAND FOR FILMS.

THE supplying of good film for non-theatrical use is not nearly equal to the demand, although millions of feet are available. The call upon the part of schools, colleges, community centers, churches, and other organizations is tremendous. For instance, there is one concern, the Bureau of Commercial Economics in Washington, D. C., which supplies programs free to more than one thousand high schools, while a number of agricultural colleges and university extension departments are furnishing free films.

Possibly the best educational agricultural films made, are those of the United States Department of Agriculture. It has more than seventy pictures of one to four reels in length which to date have received very restricted distribution through the county agricultural agents. This limited use was necessary because of lack of funds with which to make prints from its negatives.

TO FORM NATIONAL BEAN ASSOCIATION.

E. A. Little, editor of the "Bean Bag," has called a meeting of bean growers, jobbers, and others interested in the industry, at LaSalle Hotel, Chicago, for August 17-18 to organize a National Bean Association.



Gilbert Hess, M. D., D. V. S.

Dr Hess Fly Chaser

Drives away flies and mosquitoes. It is long lasting. It has a pleasant odor. It will not taint the milk. It will not stain the animal. It will not gum the hair. It cleanses the skin.

Guaranteed or money refunded.

Spray cows before milking with Dr. Hess Fly Chaser; see the good results in the milk pail.

Spray your horses in the morning and at noon; they will perform their work in contentment.

Ask the Dr. Hess dealer in your town. He has Dr. Hess Fly Chaser in convenient sized cans.

Dr. Hess Fly Chaser can be applied with hand spray, cloth or sponge.

DR. HESS & CLARK, Ashland, Ohio



Feed Every 3rd Hog FREE

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

Milkoline At 2c a Gallon

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

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

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

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

Distributed by

SCHWARTZ BROS.,

Saginaw, Mich.



2c a Gallon Milkoline comes in condensed form, and you do the diluting on your own farm. When fed as directed Milkoline mixture (one part Milkoline to 50 parts water or swill) costs only 2c a gallon. Full feeding directions free. It is shipped in convenient kegs and barrels which we supply free. The prices are as follows: 5 gal. \$7.50; 10 gal. \$12.50; 15 gal. \$16.50; 25 gal. \$22.00; 55 gal. \$49.50. It pays to buy in barrel lots because you save 60c a gal. over the 5 gal. quantities.

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

Special Offer COUPON

The E. W. ROSS CO.,
520 Warder St.,
Springfield, Ohio

Please send literature describing Ross Ensilage Cutters—also details of your Special Proposition

Name

Address

EVERY farmer who takes the trouble to clip out this coupon—or to write a card or letter this week—is going to get—A Special 30-day Proposition on the simple, powerful, clean-cutting

Ross Ensilage Cutter

Quick action is necessary. You must write at once if you want to take advantage of our Special Offer.

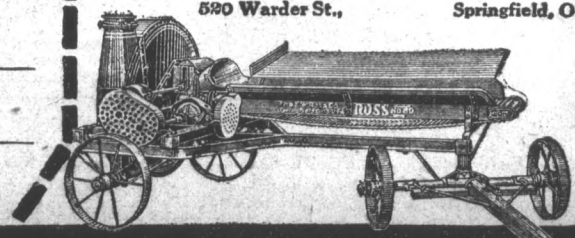
And, what is most important, you cannot afford to delay a moment if you want to be sure of getting the most reliable cutter built in time for use this fall.

Ask for full proof of Ross Superiority. No obligation on your part. Write today for the facts in full.

The E. W. Ross Company

520 Warder St.,

Springfield, Ohio



LATEST MARKET REPORTS

SECOND EDITION

The market reports in this edition were revised and corrected on Wednesday afternoon, August 4.

WHEAT

Millers are not buying wheat and farmers are marketing the grain as fast as cars are available. As a result prices on the local market have declined ten cents. Present quotations are:

Cash No. 1 red\$2.30
Cash No. 1 white 2.28
Cash No. 1 mixed 2.28

CORN

In some sections the crop is not making satisfactory progress and prices remain firm though there is no activity on the local market. Present quotations on the local market are:

Cash No. 2 mixed\$1.50
Cash No. 2 yellow 1.55

OATS

On the local market there is no activity and prices are:

Cash No. 2 white85
Cash No. 3 white84
Cash No. 4 white83

RYE

On the local market cash No. 2 rye is quoted at \$1.80 per bushel.

BEANS

The bean market is slow. Choice pea beans for immediate shipment are quoted at \$6.50 per cwt.

SEEDS

There is not much doing in the seed deal and prices at Detroit are: Prime red clover \$20; alsike \$21; timothy \$4.50.

FEEDS

There has been no material change in feed prices on the local market. Present quotations are as follows: Bran \$56; standard middlings \$59@60; fine middlings \$60@62; coarse corn meal \$65@67; cracked corn \$69@71; chop \$65@67 per ton in 100-lb sacks.

HAY

Hay prices remain steady on the local market and the demand is active at the following figures: No. 1 timothy \$35@36; standard \$34@35; light mixed \$34@35; No. 2 timothy \$33@34; No. 1 clover \$30@31; rye straw \$13.50@14; wheat and oat straw \$13.50@14 per ton in carlots.

BUTTER

Receipts are sufficient to meet the requirements of purchasers and the tone of the markets is easy. On the Detroit market quotations are: Creamery extras 52c; one-pound prints 54c.

EGGS

The tone of the market is firm and all receipts that arrive in good condition on the local market are promptly taken up at the following prices: Fresh re-handled 46c; storage packed extras 47½c per dozen.

POULTRY

There seems to be an oversupply of small broilers on the local market and buyers are not active, but prices for other lines remain steady as follows: for live poultry: Broilers 48@52c; Leghorn broilers 38@40c; hens 36@37c; small hens 34@35c; roosters 20@22c; geese 18@20c; ducks 36@38c; turkeys 40@44c per pound.

POTATOES

Prices are a little lower and the supply is sufficient to meet the demand. Virginia No. 1 stock is quoted at \$7.75 @8 per barrel in jobbing lots.

WOOL

Growers and dealers are of the opinion that fine wools will continue to predominate in the demand and are planning accordingly. As the proportion of fine wools is smaller this year than last it is suggested that another scramble for the best grades will ensue if demand is lacking for fabrics made from lower grades.

GRAND RAPIDS

During the week millers have cut the paying price 20c per bushel for wheat. The price now is \$2.15 for new No. 1 red and \$2.13 for No. 1 white. New rye is also lower, the price being

\$1.40 per bushel. Jobbers in beans reduced the price to growers this week to \$5.50 for Michigan pea, and \$10 for red kidney. They report the forthcoming crop in excellent condition. There has been plenty of moisture and hot weather. The crop of early potatoes is being rapidly harvested. The price paid to growers has dropped this week to \$2 to \$2.50 per bushel according to grading. Duchess apple crop is being marketed rapidly. Shippers from outside points buying heavily all week. The city market price is 75c to \$1.50 per bushel. Red Astrachans bring \$2. Bee men report that the Michigan crop of honey this season will exceed 400,000 pounds and claim that Michigan leads as a honey producing state. Very little hay is being marketed now as farmers are busy with crops. The price at the city market is \$23 per ton. There is a heavy falling off in egg receipts and dealers bid 44c per dozen for a supply.

NEWS OF THE WEEK.

(Continued from page 134).

lose the retroactive feature of their agreement with the operators.—The United States has protested against Japan's unchecked exploitations in Siberia.—The finance committee of the French Chamber of Deputies reject the Spa agreement to pay Germany 200,000,000 francs for coal.

Saturday, July 30.

PRESIDENT WILSON severely censures Illinois coal miners for striking in violation of their contract.—The National Chamber of Commerce approves by an overwhelming vote the open shop policy.—December wheat declines ten cents on the Chicago Board of Trade.—Premier Millerand, of France, scores triumph in securing the support of the Chamber of Deputies by a large majority, on the coal agreement with Germany negotiated at the Spa.—The business situation in Japan does not show any material improvement.—Twenty-one persons are killed and twelve injured in a munitions factory explosion near Prague.

Sunday, August 1.

CHICAGO postal clerks send delegation to Washington to confer in an effort to provide for a court of appeal to act on what the clerks term "unfair treatment and too much department authority."—The liquor referendum in Ontario is postponed from October until April, 1921.—Italian authorities are planning the electrification of 3,726 miles of railroad, while Portugal authorities expect to electrify all the lines in that country.—Following protracted disagreements with the Soviet representatives, the Lithuanian government officials withdraw from Vilna.

Monday, August 2.

ALLIED diplomats and military men fear that in order to turn the positions covering the Polish capital at Warsaw, the Bolsheviks will invade eastern Prussia which, if unopposed, will make Germany a silent partner of the Soviet government, or if resistance is offered, Germany can reasonably demand a permit to raise an army to fight.—Herbert Hoover announces his withdrawal as a member of the allied commission to Armenia.—Reports from Japan indicate that an unpleasant impression has followed the publication of the American note on Japan's occupation of the island of Saghalin.

JERSEY BREEDERS OF THE STATE MEET.

The annual summer meeting of the Michigan Jersey Cattle Club will be held at the Agricultural College, East Lansing, on August 11, 1920.

This will be a big day for all lovers of the "Fawns." The program promises to be one of the liveliest and most enthusiastic ever "pulled off" by the club.

COMING LIVE STOCK SALES.

Duroc Jersey—August 10th, Home Farm, Thos. Underhill & Son
Jersey—August 19, Bloss Bros., Swartz Creek, Michigan.
Salem, Mich.

Live Stock Market Service

DETROIT

Cattle.

Receipts 1,799. Market very dull on all grades.
Best heavy steers\$ 14.00
Best handy wt bu steers 11.00@12.25
Mixed steers and heifers 9.00@10.50
Handy light butchers 8.00@ 9.25
Light butchers 6.50@ 7.50
Best cows 8.50@ 9.00
Butcher cows 7.00@ 7.50
Canners 5.00
Cannons 4.00@ 4.50
Choice bulls 8.50
Bologna bulls 6.50@ 7.50
Stock bulls 5.50@ 6.50
Feeders 8.50@10.00
Stockers 6.50 8.50
Milkers and springers..... 60@ 125

Veal Calves.

Receipts 923. Market strong.
Best\$18.50@19.00
Others 10.00@18.00

Sheep and Lambs.

Receipts 1,195. Market steady.
Best lambs\$14.00@14.25
Fair lambs 11.00@13.00
Light to common 8.00@11.00
Fair to good sheep 7.00
Culls 2.00@ 4.00

Hogs.

Receipts 1,615. Market steady to 10c higher.
Mixed\$ 16.35
Heavy 16.00
Pigs 16.25@16.50
Rough 13.00
Stags 10.00

CHICAGO.

Hogs.

Estimated receipts today are 19,000; holdover 13,665. Market steady to 15c higher. Bulk of sales \$13.50@16.10; tops \$16.20; heavy 250 lbs up medium, good and choice \$14@15.75; medium 200 to 250 lbs medium, good and choice at \$14.75@16.15; light 150 to 200 lbs

common, medium, good and choice at \$15.20@16.20; light lights 130 to 150 lbs common, medium, good and choice \$14@15.90; heavy packing sows 250 lbs up smooth \$13.50@13.90; packing sows 200 lbs up rough \$12@13.50; pigs 130 lbs down medium, good and choice \$14.25@15.50.

Cattle.

Estimated receipts today are 8,000. Market slow and steady. Beef steers, medium and heavy weight 1100 lbs up choice and prime \$16@17.10; do medium and good \$12.50@16; do common at \$10.25@12.50; light weight 1100 lbs down good and choice \$14.75@16.75; do common and medium \$9@14.50; butcher cattle heifers, common, medium, good and choice \$6@14.75; cows common, medium, good and choice at \$5@12; bulls, bologna and beef \$6@11.75; canners and cutters cows and heifers \$3.75@6; do canner steers at \$4.50@7; veal calves, light and handy-weight medium, good and choice \$15@16.75; feeder steers, common, medium, good and choice \$8@11.50; stocker steers common, medium, good and choice \$5.50@9.75; stocker cows and heifers common, medium, good and choice \$5@8.50.

Sheep and Lambs.

Estimated receipts today are 19,000. Market steady to lower. Lambs 84 lbs down medium, good, choice and prime \$12@14.75; do culls and common \$7.50@11.75; spring lambs, medium, good, choice and prime \$9@12.50; ewes, medium, good and choice \$6.50@9; ewes, cull and common \$3@6; breeding ewes full mouths to yearlings \$6.50@10.75; yearling wethers medium, good, choice \$10@12.25.

BUFFALO

On this market medium and heavy hogs bring \$15.75@16.50, other kinds \$17.25@17.50; lambs are steady at \$15@15.25; best calves are quoted at \$18. The cattle market is very dull.

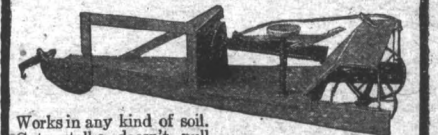
POLAND CHINA BREEDERS' PICNIC.

The members of the Central Michigan Poland China Breeders' Association will hold a basket picnic at Crystal Lake, Crystal, Mich., August 18. Mr. W. M. Wiles, of Kirklin, Indiana, will discuss the Poland China question. Five other speakers are on the program and will discuss various topics. Every Poland China breeder in the state is urged to attend. Farmers and breeders of other breeds are cordially invited to be with us. Dinner will be served on the Silver Family Grounds.—C. A. Boone, Secretary and Treasurer, Central Michigan Poland China Breeders' Association.

Messrs. Carr Brothers & Co., of Bad Axe, Michigan, report the recent sale of five Shorthorn calves for \$5,400. For several years this enterprising firm have been investing liberally in good Shorthorn individuals and are to be congratulated on their recent sales.

The PERFECT CORN HARVESTER

Sold Direct \$23.50 JUST THE THING FOR SHOCK or SILO CUTTING



Works in any kind of soil. Cuts stalks, doesn't pull like other cutters. Absolutely no danger. Cuts Four to Seven Acres a day with one man and one horse. Here is what one farmer says:

Dear Sirs:—In reply to your letter will say that the machine can't be beat. I do not know how many shocks I cut, as I went so fast I lost count. Yours truly, T. C. HARTUNG, Springport, Mich.

SOLD DIRECT TO THE FARMER
Send for booklet and circulars telling all about this labor-saving machine; also testimonials of many users.
LOVE MANUFACTURING COMPANY
Dept. 4 Lincoln, Illinois

Strength and Durability



CORN HARVESTER Self Gathering Corn, Cane and Kaffir Corn. Cuts and throws in piles on harvester. Man and horse cuts and shocks equal to a Corn Binder. Sold in every state. Price only \$28 with fodder binder. The only self gathering corn harvester on the market, that is giving universal satisfaction.—Dexter L. Woodward, Sandy Creek, N. Y., writes: "8 years ago I purchased a Corn Harvester. Would not take 4 times the price of the machine if I could not get another one." Clarence F. Higgins, Spencer, Oia. "Works 5 times better than I expected. Saved \$40 dollars in labor this fall." Roy Apple, Farmersville, Ohio. "I have used a corn shucker, corn binder and 2 rowed machines, but your machine beats them all and takes less time of any machine I have ever used." John F. Bang, Mayfield, Oklahoma. "Your harvester gave me satisfaction while using filling our Silo." K. F. Ruegnitz, Otis, Colo. "Just received a letter from my father saying he received the corn binder and he is cutting corn and cane now. Says it works fine and that I can sell lots of them next year." Write for free catalog showing picture of harvester at work and testimonials.
PROCESS MFG. CO. Salina, Kansas

POULTRY

R. C. Brown Leghorn C'h'rls
\$1.00 each. White Pekin ducks \$2.00 each.
Mrs. Claudia Betts, Hillsdale, Mich.

Silver Laced Golden and White Wyandotte eggs from best quality only \$1.75 per 15, \$3.25 per 30 by prepaid parcels post. C. W. Browning, R. 2, Portland, Mich.

S. C. Brown Leghorns Excellent layers. Farm range. Eggs postpaid 8c each. Cockerels \$1.25 each. Floyd Robertson, R. 1, Lexington, Ind.

S. C. W. Leghorns Large stock, great layers. Choice hens. Some pullets. Very reasonable. V. A. MORSE, Ionia, Mich.

White Plymouth Rock Cockerels, now \$2.00 each, will be \$5.00 and up later.
Richard M. Gorton, Brockport Farm, Mason, Mich.

BICKMORE'S



YOU LOSE MONEY
every time you lay your horses up for sores. Use Bickmore's Gall Cure—cure them while they work! Money back if it fails. At all dealers, 35c, 70c, and \$1.40. Also ask for Bickmore's Horse Liniment.

For yourself, always keep handy Bickmore's XYZ Skin Ointment and Bickmore's XYZ Family Liniment. Ask your dealer for them.

GALL CURE

25 Cords a Day

Easily Sawn By One Man.
Easy to move from cut to cut. Make big profits cutting wood. Cheap and easy to operate.

OTTAWA LOG SAW

Does 10 men's work at one-tenth the cost. Makes work easy. Engine can also be used for running pumps and other machinery. Saw blade easily removed. Write for our low price. Cash or Easy Payments.



Mr. POULTRY FARMER:

We make a specialty of White Henner Eggs and have created a profitable market for your eggs the year around. We pay the highest premium for your Henner Whites—We remit same day shipments arrive. Ship Often—Ship by Express

GEO. R. ELDRIDGE CO.

494-18th Street, Detroit, Mich.

Remember! We guarantee you satisfaction with every shipment

Eggs

We have a good demand for fancy fresh eggs and will pay you 57c per dozen delivered Detroit, cases included for express shipments, strictly new laid eggs shipped direct by farmers. This price good for week ending August 14th, 1920. AMERICAN BUTTER & CHEESE COMPANY, Detroit, Mich.

COLLIE PUPPY SALE

For two weeks only I will sell thoroughbred Scotch Collie puppies, three months old for fifteen dollars, either males or spayed females, natural heel drivers bred from farm trained stock. Send check in first letter, all puppies guaranteed. Order today or you will be too late.

Dr. Ewalt's Collie Farms,
Mt. Clemens, Michigan

Pilot Acetylene Generator

Plant—Size 50 For Sale generator, gas tank, 3 double lights with shades, 3 single lights hang in the middle of the room. 6 wall lights. Piping enough to pipe a good size house. Lights are all bronze. Porch light, hot iron, 3 burner stove. Every thing O. K. Will sell for \$150.00 worth \$300.00. W. F. MASQN, Prescott, Michigan

Farms and Farm Lands For Sale

232 Acre Farm With Horses, 25 Cows, Tools, Crops

Big steady income, near town, close creamery; broad machine-worked fields, 40-cow, spring-watered pasture; 2-story, 10-room house, spring water, maple shade, big stock barn, silo, water supply, poultry house; owner unable to occupy three in horses, cows, 3 yearlings, 2 2-year olds, machinery, tools and part growing crops; less than \$33 an acre for everything, easy terms. Details of this and another at \$29.00 page 29 Strout's Big Illustrated Catalog Farm Bargains 33 States, copy free. STROUT FARM AGENCY, 314 BO Ford Bldg., Detroit, Mich.

Virginia Farms

You can become happy and independent farming in Virginia. You can grow profitably alfalfa and all grasses, corn, fruits, grains, beef and dairy cattle. Virginia boasts the finest apple growing section in the world. Prices very reasonable, but advancing. We welcome you. Write now for illustrated hand book and maps.

G. W. KOINER

State Commissioner of Agriculture, Richmond, Va.

140 ACRES first class, gently rolling land, fine buildings and location in Central New York State for \$12,000. Part cash balance easy. Write for full particulars. FORT AND WILDER INC., Oneida, N. Y. Members of the Farm Brokers' Association, Inc.

FOR SALE

213 acre fully equipped dairy or grain farm 10 room house, all necessary outbuildings, fruit, cherries, peaches, apples, for family use 2 miles from creamery and milk station. \$12,000 only \$2,000 in cash required. C. J. Lane Farm Agency, Inc., Burlington, N.J.

Modern dairy farm 121 A. 2 houses, 3 barns, electric lights, running water, 19 cows, 4 horses, hogs and chickens. Modern machinery, good crops. 2 hrs from Detroit on County road. L. Broughton, Ray Center Macomb Co. P. O. New Haven, B. R. I. Mich. Phone 29-41.

Farms in southeastern North Dakota in the Fairview James River Valley Western county North Dakota. 20,000 acres must be sold immediately. Write for free list. JOHN B. FRIEDLAND COMPANY, Jamestown, North Dakota

Ex-Soldier wants to rent or buy a good general farm with small down payment. Address H. F. ADAMS, 356 Theodore St., Detroit, Mich.

SHORT-FED SPECIALS AT INTERNATIONAL.

IN order to determine and demonstrate the best and most economical method of feeding cattle, The International Live Stock Exposition has created the following classes, to be known as "Short-Fed Specials."

Cattle to be eligible for entry must not have been fed grain or other concentrated feeds between May 1 and the time application is made for entry, but after that time the owner may feed the cattle such feeds, including grain, as in his judgment will accomplish the greatest results within the given feeding period, i. e., from the date application is made for entry to the opening day of the exposition.

The Following Rule Governs this Contest:

Rule 72. (a) Application for entry must be made between the first and fifteenth of August. (b) Cattle must be owned by exhibitor at the time application is made. (c) Cattle must not have been fed grain or other concentrated feeds between May 1 and the time application is made; they may, however, have been run in stalk fields. (d) Eighteen cattle may be fitted, but only fifteen of this number can be shown as one carload. (e) The number of days on feed should include the day the cattle are started on feed and end with the last day the cattle are on feed, or when they leave the feed lot. Cost of gain should be figured on the same basis. (f) Cattle must be weighed, twelve hours in dry lot off feed and water, on day application is made and a record must be kept of the weight of these animals. The cattle to be judged will again be weighed, under similar conditions, at 10:00 a. m., Saturday, November 27. (g) Sworn statement by the owner and two other reputable persons that cattle had not been fed grain or other concentrated feeds between May 1 and the time application for entry is made, also covering the weight of animals on date of application, must be sent to the general superintendent of the exposition with said application. (h) a record of the kind, weight and cost of feeds consumed during the feeding period must be kept by the owner, who will deliver this information, together with the weight of the animals at time of entry, to the superintendent of the carload cattle division, on the opening day of the exposition. (Blanks for all of these purposes will be furnished on request to the general superintendent). (i) In judging these classes:

Quality and finish will count for 50 per cent; gain, 25 per cent, and economy of gain, 25 per cent.

NEW YORK PRODUCE MARKET.

Butter.—Because of the high receipts and of the supply of foreign butter on hand, receivers are urgent sellers and this has caused a weak market and a price decline of one cent. There would have been a greater decline but for the revival of speculative interest brought about because of the favorable price situation. There has also been considerable demand from out-of-town sources. The tightness of money is preventing some speculators from laying in as much butter as they wish to and it is also causing some receivers to force sales which otherwise they would not do. Established quotations are: Extras 55¢@55½¢; higher scoring than extras 55½¢@56½¢; firsts 51½¢@54½¢; seconds 48½¢@50½¢.

Cheese.—Receipts of cheese are at the point for the year. Local consumptive demand continues low, but trading did revive somewhat during the latter part of the week. Quotations are: Fair to good 24½¢@25¢; average run 25¼¢@26¼¢; specials 27¢@28¢.

Eggs.—Receipts are running fairly uniform from week to week. Demand has been good and practically all grades have moved freely. Quality, on the whole, is running above normal for the season. There has been little or no change in prices. Established quotations are: Seconds 44¢@47¢; firsts 48¢@50¢; extra firsts 51¢@53¢; extras 54¢@55¢.

Poultry.—Seashore and mountain resorts have been large users of poultry, especially of broilers and fowls, during the past week. The market has been strong and active. Prices, however, are unchanged. The situation can be said to be very healthy. Quotations are: Fowls 38¢@41¢; broilers 42¢@50¢; old roosters 24¢; turkeys 35¢; ducks 27¢@30¢; geese 25¢.

FARMERS' CLUB PICNIC.

The Central Michigan Farmers' Club picnic will be held at M. A. C., August 7, in conjunction with Farmers' Day. All club members should make it a point to attend.

TRY THE RED SEAL SPARKER



A Gang of "Red Seals" Handled as One

Your same trusted friends—the Red Seal Dry Batteries—but easier now to handle. Ready for you now at your dealers.

Red Seal Sparkers do away with bother and loss of time in fussing with short wires and many connections—of short circuits in connecting wires—of handling an awkward bundle of batteries, etc. New double waterproof casing lengthens battery life. Only two posts to connect—large and square to turn easily with fingers. A broad web strap for carrying from one job to another—from Ford to tractor, farm engine or to lighting plant at night.

Best for Every Farm Use

Wherever a spark is needed, the Red Seal Sparker will serve you best. Handiest thing in the battery line you ever saw—and Red Seal sterling quality all through.

Ask Your Dealer

Dealers handling Red Seal Dry Batteries also have the Sparker. Buy the Sparker for its convenience and saving. Your dealer has "How to Run the Gas Engine—Simplified"—our famous hand-book for engine owners. Ask him for Free Copy.

MANHATTAN ELECTRICAL SUPPLY CO., INC.
New York, Chicago, St. Louis, San Francisco
Factories Jersey City, St. Louis, Ravenna, O.

FIRST-OLD DETROIT NATIONAL BANK

MEMBER FEDERAL RESERVE BANK

THE First and Old Detroit National Bank, the First National Company and the Central Savings Bank are under one ownership, insuring especially complete service to every one needing a Detroit connection.

DETROIT



Save your corn!

THE only sure way to save your late corn that has a big chance of being frosted, is to put it in a Silo.

You can get an Indiana Silo NOW, it can be erected by three or four men in one day and filled the next day. Our stock is complete in all size silos—we can fill orders promptly.

Order now—SAVE YOUR CROP while you can!

INDIANA SILO & TRACTOR COMPANY

47 Union Building.....Anderson, Indiana
47 Indiana Building.....Des Moines, Iowa
47 Silo Building.....No. Kansas City, Mo.
47 Live Stock Exchange Bldg.....Indiana Silo Co., of Texas, Ft. Worth, Tex.

Save 50% on a Motor Truck

Built for a Government job in 1919—used only a few weeks—stored for a year—that's their history.

Two ton Denbys, 2 ton Internationals, 2½ ton Gramm-Bernsteins. Just the size for the farm.

We give you the same guarantee with these trucks that you get from the factory. If you are interested in the purchase of a truck and will drop us a line, we will send you pictures, and detailed descriptions. After you have received full information, if you decide you would like to purchase a truck, we will deliver it to you, on approval anywhere within 300 miles of Detroit—if everything is not exactly as represented you will not be obligated to take it.

We have only a few left and as the hauling season is at hand we expect to dispose of them quickly. So if you want a truck write now.

LEWELLEN & ROEHM, 65 Ash St., Detroit, Mich.

For Best Net Results

Ship to

CULOTTA & JULL

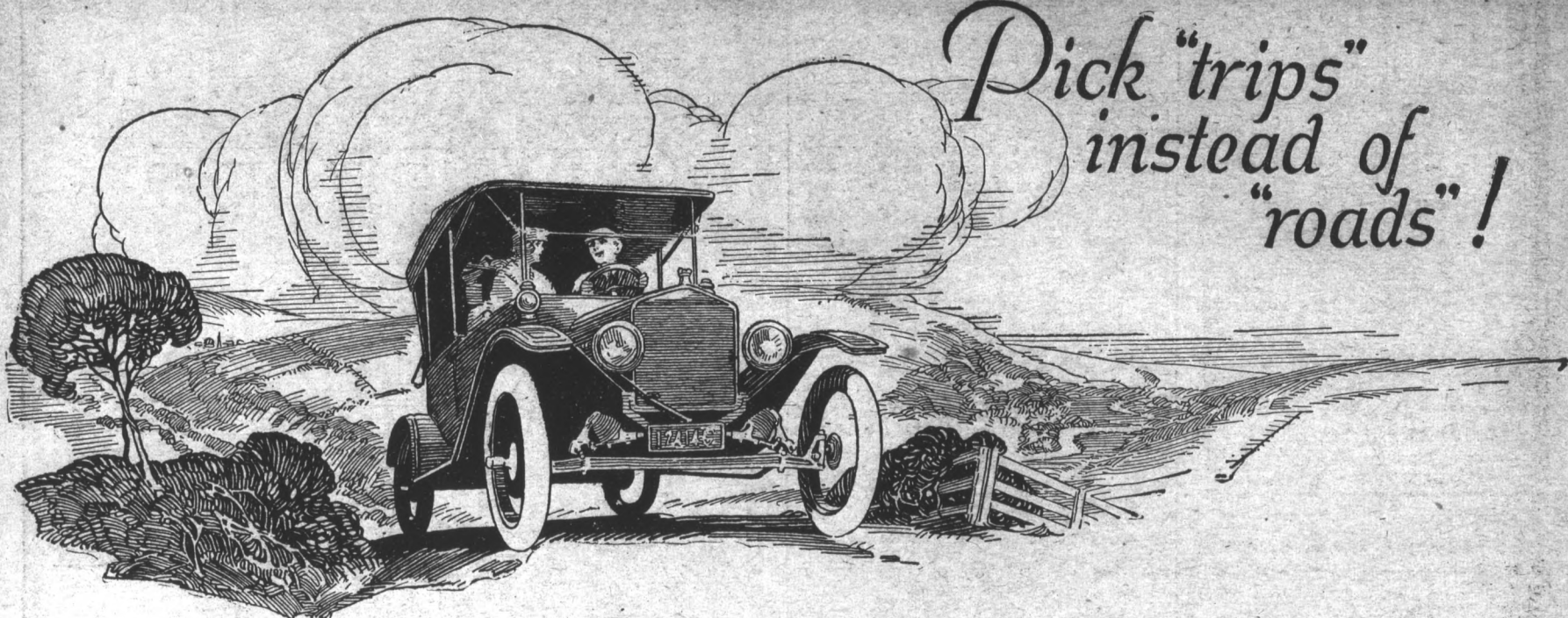
Detroit, Mich.

"Enough Said!"

Holmes, Stowe Co., 445 Riopelle St.

Commission Merchants. Dressed Beef, Hogs, calves, Poultry, Live & Dressed, Provisions, etc. Correspondence Solicited. Ref. Wayne County & Home Savings Bank, Bradstreet, Detroit, Mich. Cad. 2878

HAY Ship to The Old Reliable Hou e Daniel McCaff ey's Sons, 623-625 Wabash Bldg., Pittsburg, Pa.



WHEN you start out for a ride do you go where you wish to go, or where the roads are supposed to be good? Of course, some roads are impossible, but many so-called rough roads would be satisfactory if your Ford were equipped with Hassler Shock Absorbers.

Hasslers also protect your car from the bumps and jolts. They enable your car to travel all ordinary roads without injury. This protection means a saving of one-third of your tire and repair expense, and also lengthens the life of your car one-third.

Hasslers make your Ford ride like the highest priced cars. Bumps and jolts that ordinarily make riding unpleasant are not noticed when your Ford is equipped with Hassler Shock Absorbers.

Owners of Hassler-equipped cars drive farther with less fatigue for themselves, and less wear and tear on their cars. They pick trips instead of roads!

Hasslers can be installed on your car without necessitating any mutilation whatever. They do not change the appearance of the car.

They are made for the touring car, roadster, coupe, sedan and the Ford one-ton Truck. Your Hassler Dealer will see that your car is fitted with the right kind of Hasslers.

He will also tell you about the 10-Day Trial, which enables you to drive with Hasslers for ten days and if not satisfied have them removed and your money refunded. This enables you to get acquainted with Hasslers without risking your money.

If you do not know the Hassler dealer, then write us and we'll see that you secure Hasslers promptly.

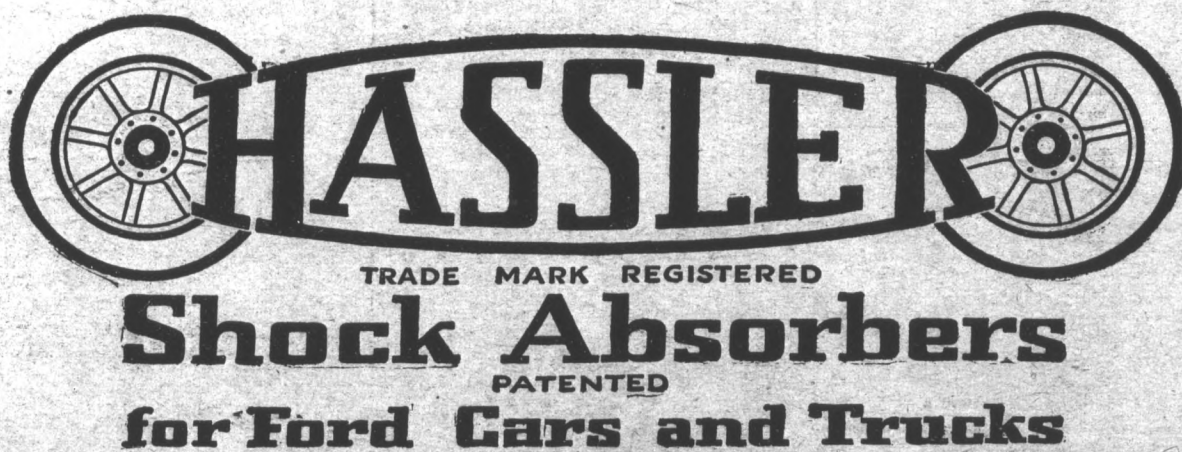
Opportunities now for exclusive distributors in many foreign countries.

ROBERT H. HASSLER, Inc. 1131 Naomi St., Indianapolis, Ind.

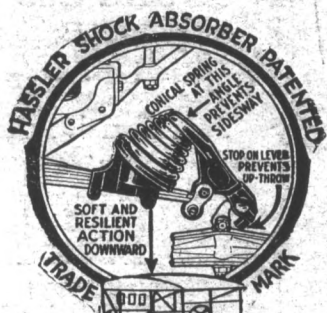
Made in Canada by Robert H. Hassler, Limited, Hamilton, Ontario

The Hassler Guarantee: "Absolute Satisfaction or Your Money Back"

A Standardized Quality Product—Worth the Price



The conical springs set at the angle shown prevent sidesway and allow for the most resilient downward action. The springs compress on either upward or downward movements—do not stretch out of shape—do not allow up-throw. Hasslers last as long as the Ford and make it last.



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This Twin Type for Front and Rear of Ford Sedans



This Twin Type for Front and Rear of Ford Commercial Cars



This Twin Type for Front and Rear of Ford One-Ton Trucks