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# MICHIGAN BUSINESS FARMING

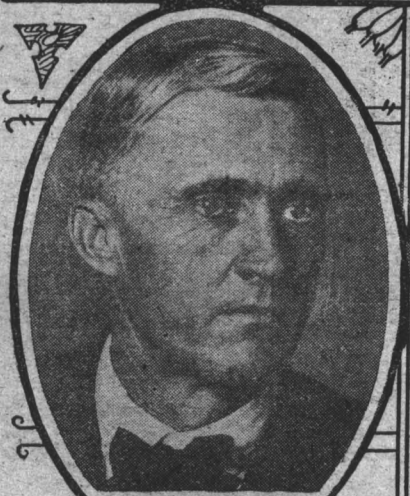
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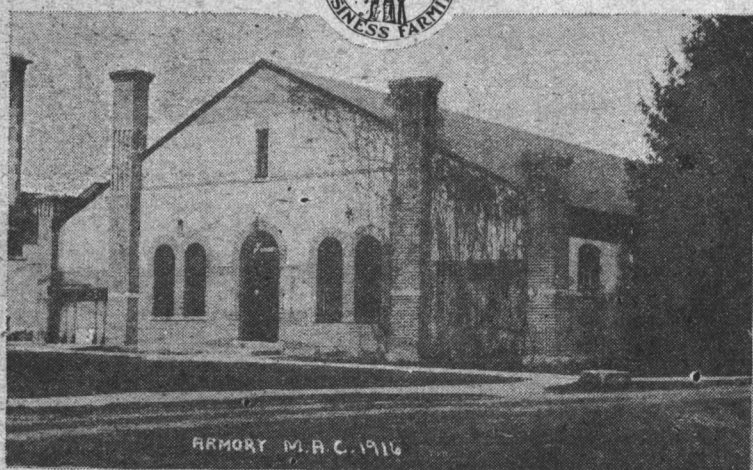
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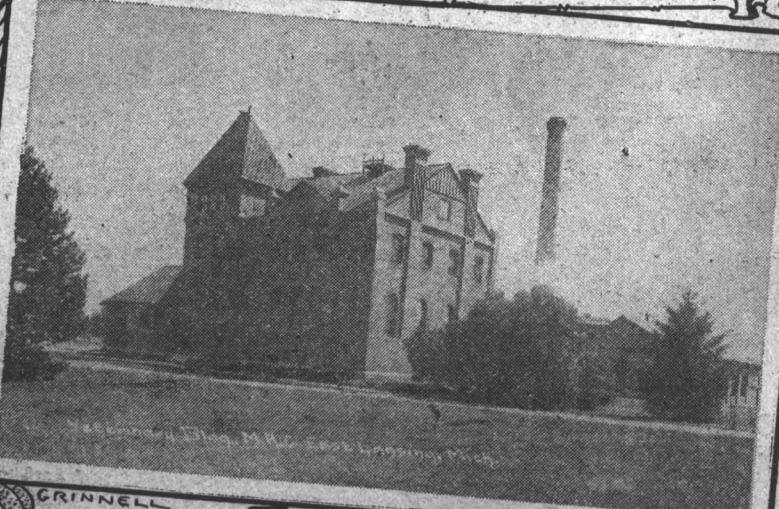
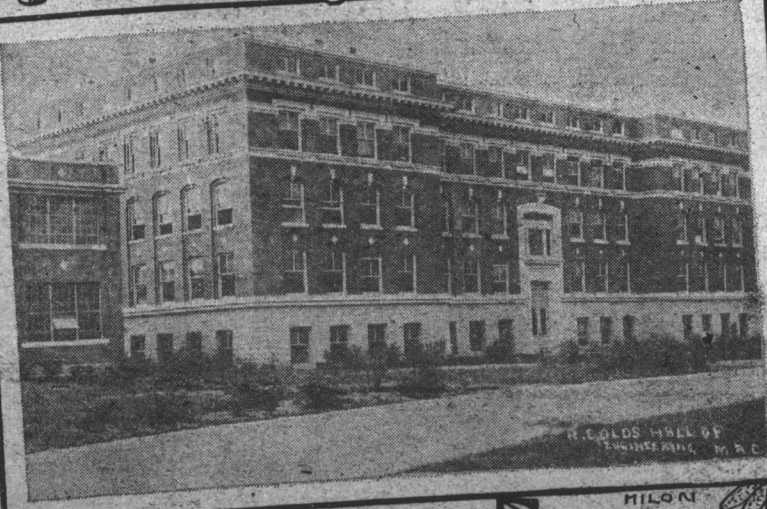
## We'll meet you at East Lansing



J.R. HOWARD



H.C. TAYLOR



MILON GRINNELL

## Farmer's Week, February-2,3,4,5,6.

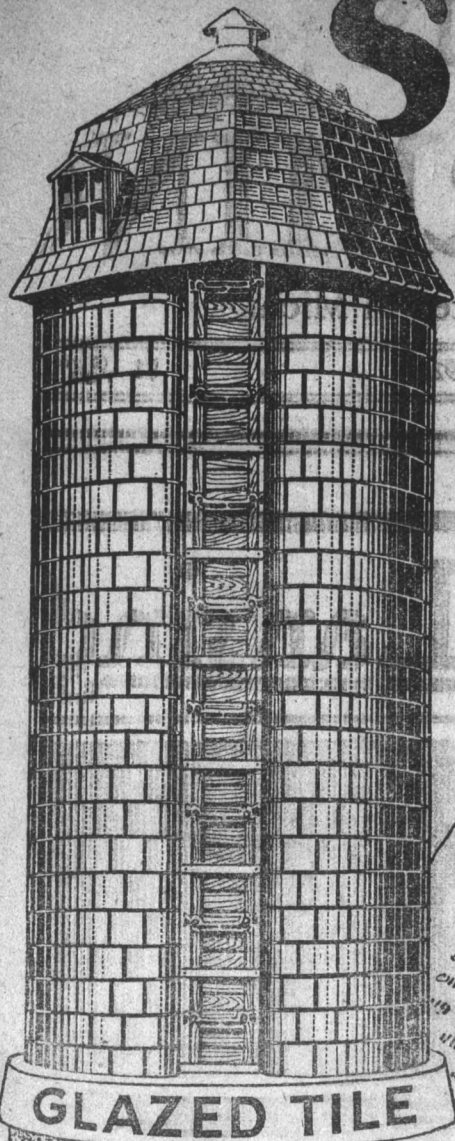


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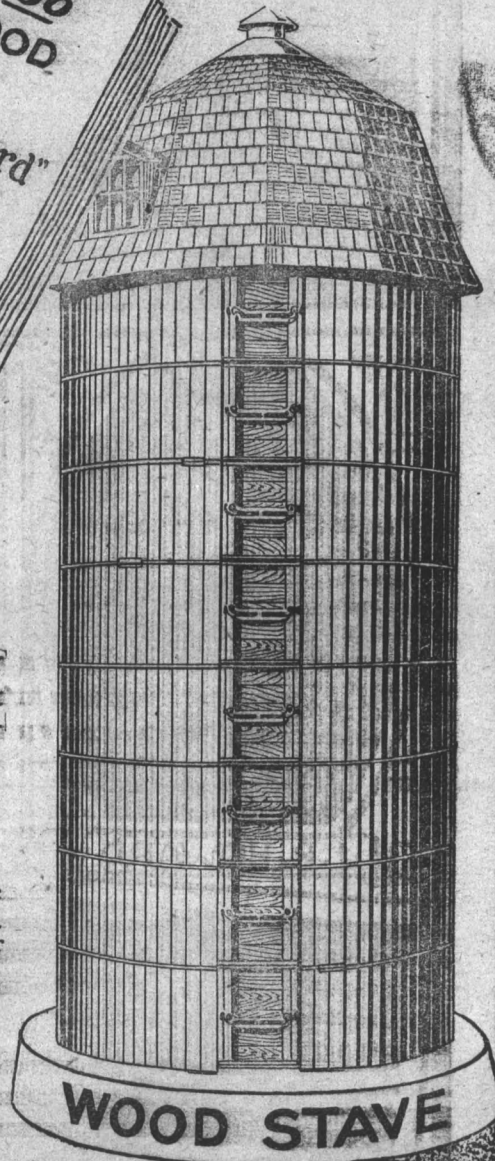
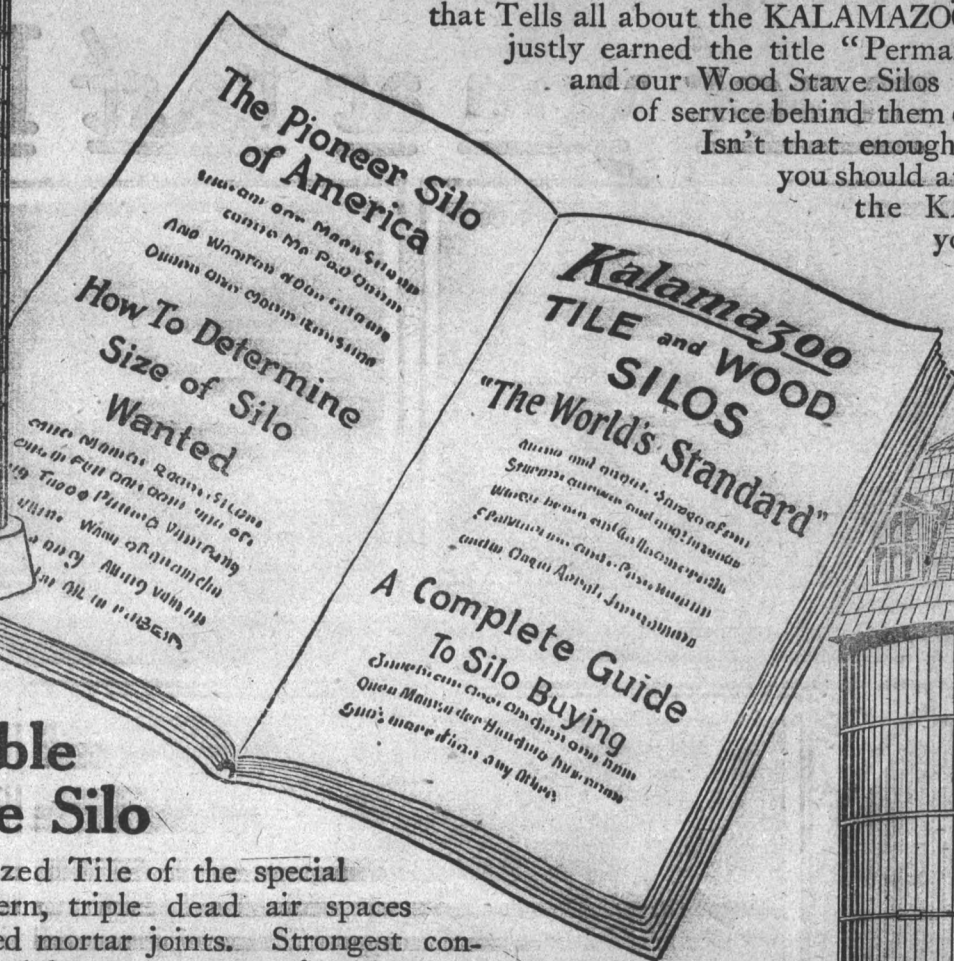
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# Kalamazoo







# MICHIGAN BUSINESS FARMING

MOUNT CLEMENS, SATURDAY, JANUARY 17, 1920

## An Appeal For Good Government

A GOVERNMENT that is of, by and for the people is like an intricate piece of machinery. The only great difference is the human equation. The cogs, wheels, pinions, bolts, shafts and levers of the machine take the form of men and women in the government, who being human, do not perform their allotted tasks quite so faithfully and well as do the parts of the machine. But the two are alike in many respects. The wheels must have an occasional cleaning; they clog with dirt and do not run smoothly. Parts must be frequently examined and replaced; there are often defects in the material; it becomes worn and useless and threatens to interfere with the efficient operation of the entire machine.

We are supposed to be living in an age of wonderful efficiency. Our factories and our farms and our public utilities are supposed to be models of system, rendering maximum service at minimum cost. But the thing that ought to be the special object of our pride and solicitude, our government, is in a lamentable condition of disorder bordering closely on the chaotic. This would not be so bad were the people who are the real makers and caretakers of government impressed with the need and desire for taking prompt steps to curb the wastefulness, repair the damaged parts, discharge the custodians who have permitted it to fall into such a disgraceful condition, and fill their places with men of character.

We need to hark back to the founders of this government and relearn our lessons on democracy and our duties as citizens. George Washington is speaking. It is his farewell address.

"The Unity of Government, which constitutes you one people, is also now dear to you—it is justly so; for it is a main Pillar in the Edifice of your real independence; the support of your tranquility at home; your peace abroad; of your liberty; of your prosperity in every shape; of that very Liberty which you so highly prize \* \* \* It is of infinite moment, that you should properly estimate the immense value of your national union to your collective and individual happiness; that you should cherish a cordial, habitual and immovable attachment to it; accustoming yourselves to think and speak of it as of the 'Palladium of your political safety and prosperity; watching for its preservation with jealous anxiety. \* \* \*"

It is a noteworthy fact that the early days of the Republic produced many of the nation's most able and distinguished leaders. This can be easily understood. The hard-won freedom was like a rare jewel, far more precious than the lives it had cost. Once secured, it must be made secure. It could not be entrusted to careless or deceitful hands. It must be surrounded and guarded by proven men whose pledge to the government would be held inviolate. Our forefathers laid down rigid requirements for the protectors of their new government. Thus, only the best men of the nation came forward to direct the affairs of government, and we may reasonably believe that the most of them were moved by a sincere desire to aid the struggling Republic than to secure empty political honors for themselves.

Time has wrought great changes; the infant Republic has grown into stalwart manhood, and those who, in periods of its immaturity watched with anxious eyes when dangers threatened, have long since relaxed their vigilance leaving the Republic to the mercy of its enemies. The motive for seeking office has largely changed from a desire to serve to a desire to be served. Men of evil intent aspire to office and gain office by evil methods to which good men will not stoop. Consequently there is corruption in high places; the dirt of graft clogs up the wheels of government; careless men are at the levers; everywhere is evidence of inefficiency and waste of energy.

The ignorance of the average citizen of the workings of the government is truly appalling. If he but knew the opportunities that exist for unscrupulous men in official positions to influence and corrupt other public servants with whom they come in contact, or was fully impressed with the consequences of vicious laws or total indifference to the need for good laws his attitude toward "politics," the "science of government" would quickly change, and he would be as meticulous in the future in the se-

lection of the men who run for office as he would be of the men whom he would put in charge of his private business. The seeds of evil which are sown by corrupt men in positions of public trust do not as a rule, unfortunately, bear their fruits of demoralization until long after the sowers have retired to private life. So it is not always easy to trace the responsibility for unjust laws, growth of special privilege, subordination of government to special interests, high taxes and other evils.

At the moment we seem to be in a conflict between various contenders for special favors. The ease with which capitalism has reached its pinnacle of power under the protecting arm of the law and frequently in defiance of the law has aroused the envy of others and tempted them to try the same measures. They are seeking to unseat capitalism from its present position, but capitalism is resisting with very poor grace the reforms that must be brought about before the unrest of the nation can be soothed, thus inciting the reformers to the adoption of a program which, if carried out, would be as full of dangers to our liberties as those which now encompass them.

I am not acrier of calamity. Eventually all will be well. Emerson says:

"This law (of action and re-action) writes the laws of cities and nations. It will not be balked of its end in the smallest iota. It is in vain to build or plot to combine against it. Things refused to be mismanaged long. Though no checks to a new evil appear, the checks exist, and will appear. If the government is cruel, the governor's life is not safe. If you tax too high, the revenue will yield nothing. If you make the criminal code sanguinary, juries will not convict. Nothing arbitrary, nothing artificial can endure."

But we ought not to await the conditions which will automatically set the Emerson law to working. On the contrary, as long as there are peaceable means for overcoming the defects in our government and in our social order, those means ought now to be employed. But they will not be employed if the mass of citizens who make up the commonwealth and the nation cannot be moved to action. It is to their interests, first and primarily, that these corrections should be made.

There must be an awakened civic consciousness on the part of every man and woman. They must be made to feel as their forefathers felt, that free government is the most precious of all their earthly possessions, and that it must be studied, understood and wisely managed if it is to perform its functions and give to all their fair portion of its benefits.

"The less government we have the better—the fewer laws, and the less confided power," says Emerson. "The antidote to this abuse of formal government, is the influence of private character, the growth of the individual \* \* \* We think our civilization near its meridian, but we are only at the cock-crowing and the morning star. In our barbarous society the influence of character is in its infancy \* \* \*"

May we not put aside all other considerations when naming those to represent us in government except character and capacity for serving? The nation is not without men of character, but those who will always do the right thing instead of the expedient thing are very rare, indeed. The principal tribute that can be paid to a good many men in public office is that they were good politicians. The poor politician seldom captures an office in a spirited contest, although as a man of character he may stand head and shoulders above his successful opponent.

Good government is difficult of attainment and perpetuity. It cannot possibly be secured by indifference to the changing needs of the commonwealth or to the character of the men who are chosen to provide for those needs. Good government is within reach. The gap can be bridged by first, an overwhelming desire for good government; second, knowledge of what constitutes good government; third, acquaintance with the responsibilities, duties and opportunities of good government; and last, the careful selection of honest, upright men of proven character to administer the government and pass upon its laws.

*Frederick*  
EDITOR



# Whirlwind of Events During Farmer's Week

Farmers Expected to Attend Meetings and Hear Prominent Speakers at East Lansing, Feb. 2-7

By VERNE E. BURNETT

**M**R. FARMER is going to be the man of the hour at the celebration now being prepared by the Michigan Agricultural College and many co-operating bodies. This event 's the famous Farmers' Week, to be held this year at East Lansing, February 2-7 inclusive. Last year more than 5,000 farmers turned out to the meetings and exhibits, but next month more than 8,000 are expected to attend.

In addition to thousands of farmers coming as individuals or as families, a dozen or more meetings of state agricultural associations will make East Lansing the Mecca, the first week in February, of great throngs. For example, the Michigan State Farm Bureau members, who will number somewhere around 20,000 by February first, will hold their regular winter session—which will probably be one of the most important gatherings in the history of that organization.

Members of the Michigan Crop Improvement Association will also assemble at the college during the red letter week on the farmers' calendar for February, 1920. The Crop Improvement folks will go to the meeting elated with the recent victory of their handicraft at the International Hay and Grain Show at Chicago.

The Michigan Milk Producers' Association will be another of the high lights on the program of Farmers' Week. The splendid work of that association during the past year against terrific odds, together with the chances for much better work the coming year, will assure great interest on the part of its many thousands of members in this state.

So much progress has been made recently in the marketing of the spuds grown in Michigan that the gathering of the Michigan Potato Producers' Association during Farmers' Week will certainly create its share of attention. The Michigan Veterinary Association and the Michigan branch of the American Poultry Association will both have special features at their sessions which will make it worth while for all members to pack their grips and attend. A splendid poultry show will be one of the headlines on the bill.

Faced with extinction, unless remedial action is taken, members of the Michigan Maple Syrup Makers Association say that it is of prime importance for all engaged in their trade to attend the sessions at East Lansing during Farmers' Week. Other meetings which will help put the event big include those of the following:

Michigan Muck Farmers' Association.

Michigan Milk and Dairy Inspectors Association.

Park Superintendents and City Foresters.

Rural Y. M. C. A. Secretaries.

Other organizations may join in line for the especially opportune time for a gathering. Meetings are arranged so as not to conflict with each other to any great extent, and the speeches of the many notables on the program will be held at separate times and at hours when no meetings are in session. Authorities at the Michigan Agricultural College are delighted at being of more service now than ever in their history; and one of their greatest services just now to farmers in general is the opportunity and encouragement the college is furnishing for the benefit of organized ruralists through such means as Farmers' Week.

Much can be said of the importance of every organization's work on

## List of All-Star Speakers

J. R. Howard, president of the American Federation of Farm Bureaus.

H. C. Taylor, chief of the Farm Management Bureau of the U. S. Department of Agriculture, in charge of gathering cost of production data.

Former Congressman A. F. Lever, member of the Farm Loan Board, and successful sponsor of such legislation for the welfare of agriculture.

Governor Frank C. Lowden, of Illinois, one of the Republican possibilities for the coming presidential nomination.

Dean Alfred Vivian, of Ohio State University, who will give a daily, illustrated lecture on "Farmers' Tour Around the World."

Dr. C. V. McCollum, of Johns Hopkins University, famous writer and scientist.

Dr. W. G. Gunsolus, president of the Armour Institute of Technology, of Chicago; former pastor of nation-wide reputation.

A. J. Kiernan, chief of the government work on tuberculosis eradication, Bureau of Animal Industry, Department of Agriculture.

Kenyon L. Butterfield, president of Massachusetts Agricultural College.

President G. C. Creelman, of Ontario Agricultural College.

Henrietta W. Calvin, of the Bureau of Education at Washington.

the program—importance not always generally recognized. For instance, the Rural Y. M. C. A. secretaries in Michigan are hanging up a record unequalled anywhere. Five years ago Michigan had one third of all the rural "Y" workers in the United States, and the state has gone considerably ahead since that date.

### All-Star Group of Speakers

Just to get an idea of the unusual strength of the speakers' program for Farmer Week, we quote the following extract from a letter from the Michigan Agricultural College, in response to inquiries from Michigan Business Farming; the letter shows other facts as to the great importance of the occasion:

Michigan Business Farming, Mt. Clemens, Michigan.

It is felt here at the college that the list of speakers is the best ever gotten together for a state agricultural convention anywhere. You will note that any one of five or six of the speakers would be a headliner at any other event of this kind.

The members of the various agricultural associations meeting together here during the week will mark about the biggest gathering for the year for farm leaders of the state. Members will have an opportunity to attend one or more of the meetings, and at the same time "take in" the attractions of Farmer's Week.

Exhibits will be very interesting this year. We will have guides and charts to help visitors find their way about the

college. In fact, more will be done this year to make this a big and successful convention for farmers of Michigan than ever before.

J. B. HASSELMAN.

Dean Alfred Vivian, of Ohio State University, will provide one of the big features of the program of the speeches. His set of illustrated lectures on "Farmers' Tour Around the World" are already very famous. Dean Vivian has studied at first hand the agricultural conditions of practically every country in the world and he has a treasure of splendid illustrations. One of his lectures will be given each day during the week.

The speakers show that the week will be a three-ringed circus and Fourth of July celebration combined. For instance, a presidential "candidate" is one of the speakers alongside a famous British poet and war correspondent. Then there is a silvery tongued preacher and college president; super experts in various lines of farm work including an ex-congressman, now engaged in federal service for benefit of farmers.

Gov. Frank C. Lowden of Illinois, is the Farmers' Week speaker who is often mentioned as a possibility for the Republican presidential nomination. Cecil Roberts

is the famous English war correspondent and poet who will be on the M. A. C. program. The college for years has been carrying on a lecture course of big calibre speakers, such as Mr. Roberts, who take the students and farm visitors away from "shop talk" for an hour or so, now and then. This is in line with a broad-mindedness which the farmer class has been showing strongly—that is, the farmer wants to understand his brother human beings in all other classes and make decisions from the standpoint of what is best for the greatest number.

One of the most important speakers is to be J. R. Howard, elected this winter as president of the American Farm Bureau Federation, during the famous convention at Chicago, where the farm bureau organizations from 35 states arranged to affiliate as a national body. Mr. Howard is a product of the middle west, Iowa, and has a great message. The thousands of Farm Bureau members who expect to attend the sessions at East Lansing assure Mr. Howard of a big and enthusiastic audience.

H. C. Taylor, another of the "heavy artillery" on the M. A. C. program, is the new chief of the Farm Management Bureau of the United States Department of Agriculture at Washington. Upon Mr. Taylor's shoulders rest the responsibility of working out the cost of production figures for the farmers of the nation. Michigan is one of the leading states in the work of seeking accurate costs of production and many a farmer is expected to get some helpful tips from the work which Mr. Taylor will explain.

Former Congressman A. F. Lever, who has been responsible for much of the recent legislation toward the country life improvement, is a strong figure on the bill at the M. A. C. He is now well known to farmers thru his work as a member of the Farm Loan Board.

One of the men on the list who has created a high reputation both with the general public and the farmers is Dr. C. V. McCollum, nutrition expert at Johns Hopkins University. His writings may be found on the tables of almost any progressive dairymen in the State of Michigan, as well as any other state. The general public knows him best, perhaps in connection with his research and explanations of "vitamines." Dr. McCollum was formerly at Madison, Wisconsin, and is quite widely known in Michigan as well.

Others who will address meetings include: Dr. W. G. Gunsolus, former pastor and now president of the Armour Institute of Technology, Chicago; A. J. Kiernan, chief of the tuberculosis eradication, Bureau of Animal Industry, Department of Agriculture, Washington; Kenyon L. Butterfield, president of the Massachusetts Agricultural College, author and noted authority on agricultural problems; Henrietta W. Calvin, Bureau of Education, Washington, D. C.; President G. C. Creelman, of Ontario Agricultural College, who is expected to say something about the splendid work of the United Farmers of Ontario.

### Exhibits of Top Notch-Class

The exhibits at Farmer's Week will cover every division of agricultural life. They will be new this year and will all bear directly upon the farmers' problems.

The major divisions of the display will cover farm crops, horticulture and animal husbandry. Practi-



A. F. LEVER  
Member National Farm Loan Board, who will be one of the Farmer's Week speakers.





cally every department at the college will be represented, however, in some of the exhibits.

In fact, the College itself will be on dress parade. The sights over the beautiful grounds are ever-changing, ever new, to the many thousands of visitors who stroll every year over the grounds and through the buildings of this excellent institution of the State of Michigan. It certainly is a splendid monument of the public to the greatness of agriculture. There are the fine new structures, and the old ones with many memories. There is the Museum with the old Civil War stuffed horse and the stone age fossils, and, better than that, the up-to-date scientific displays of modern agriculture.

It surely is an inspiration for the young folks on the farm to look at and study the wealth of information gathered at the College. It is an appeal to their manhood and womanhood to see the gymnasium work and the drills in the field; and it is a huge argument for the young folks to stay right on the farm with Dad and Mother, when the best that the College can show is set before them. There are the splendid purebred cattle, and all other kinds of stock, which produce profits to such an extent as to make all of them mortgage lifters. Then there are the exhibits of grain which take the international prizes. All the up-to-date methods of the business of farming are at least touched upon at the college. It is an inspiration for any boy or girl of the farm to take a peek at what the College has to offer—what it has to say on behalf of the profession of farming.

Nearly all of the exhibits which the college sent to the recent International Hay and Grain Show at Chicago will be on display in the crops section. The competitive exhibits in the Michigan Crop Improvement Association Show will also be features of this section.

In regard to the hay and grain exhibits, great interest is bound to be shown at Farmer's Week this year by the farmers of Michigan. Did you know that eight out of the sixteen prizes awarded for samples of rye and more than half of all the premiums given out in the class for wheat are among the victories scored by Michigan producers at the International Grain and Hay Show at Chicago this winter? And the farmers of Michigan walked away with many other prizes at that great exhibition, so they come with the flush of victory to the Farmer's Week show where most of the Chicago prize winning exhibits will be repeated.

In their class for wheat, soft red winter, Michigan growers competed against the entire United States and Canada, such states as Kansas and the Dakotas, famed for their wheat, being included. In spite of the high class of competition met, the state's farmers came out with their heads up and their pockets full of premiums—more than half of those offered in the class.

There was but one class for rye, including splendid exhibits from Canada and many parts of the United States. Out of the 16 prizes awarded, the Michigan men bore off with eight.

One feature of the show of which the Michigan Agricultural College can boast is the rosen rye and red rock wheat victory. The College for a long time has been advocating the use of these excellent varieties, and its samples proved to be head and shoulders over anything else at the show. Rosen rye took first, second, fourth and fifth prizes in its total of eight prizes out of a possible 16, while none of the other varieties succeeded in gaining a noticeable success.

The same was true of wheat. Red rock took the first three places in

### List of Organizations to Gather for Farmer's Week

Included in the list of organizations which will hold meetings at East Lansing during Farmers' Week are these:

The Michigan State Farm Bureau.  
The Michigan Crop Improvement Association.  
The Michigan Milk Producers' Association.  
The Michigan Potato Producers' Association.  
The Michigan Maple Syrup Makers' Association.  
The Michigan Veterinary Association.  
The Michigan branch of the American Poultry Association.  
The Michigan Muck Farmers' Association.  
The Michigan Milk and Dairy Inspectors' Association.  
Rural Young Men's Christian Association Secretaries.

its class, along with many other lower awards, and was easily the outstanding wheat of the show. Although first place was lost to Michigan in the wheat entries (John Dunbar, of Rudyard won the second honors,) local growers carried off the blue ribbon with a Michigan product—Red Rock.

The Michigan Educational Exhibit at the show was the largest and best entered. The Michigan Crop Improvement Association, the Michigan Potato Growers Exchange and the Michigan Agricultural College uniting to prepare the display. A large map of the state upon which were posted views of the varied farming industries, a mound of selected Potatoes, bins of Rosen Rye and Red Rock wheat, and a special display for the Upper Peninsula were features of the state display.

"Practically all the Michigan exhibits which were at Chicago will be on hand for the Crop Improvement show during Farmer's Week at the College the first of February," says J. W. Nicholson, secretary of the Michigan Crop Improvement Association. "Other growers who did not exhibit at the International will get into the game at this time and see

how their samples compare with the best in the state. The result will be one of the best grain shows ever seen in Michigan, or any where else, for that matter."

A practical demonstration to show the actual working of a cow testing association, exhibits to show the effects on successive generations of good breeding and stock specimens from the Chicago stock yards to illustrate daily market quotations, will be found among the animal husbandry booths.

An entire building is to be given over to the horticultural show alone. The second annual state championship poultry show, household arts and science displays, and exhibits of farm machinery and veterinary medicine work will be prominent during the week.

The Michigan State Round-up Poultry Show, a blue ribbon exhibit which will bring together all the best birds in the state, will be held at the College in connection with the many other features. Nearly 100 different poultry establishments in the state will enter a total of over 500 fowls.

Inasmuch as only those birds which have won premiums at other

shows will be eligible for entry at the college sweepstakes, competition will be unusually keen. The birds which take prizes at East Lansing will have to be champions among champions.

All entry fees are to go to the prize winners in each class, forty per cent for first place, and thirty, twenty and ten per cent for the next three places respectively. Every bird which places will get at least a ribbon. The entry fees are to be fifty cents for single birds and two dollars for pens. Prof. C. H. Burgess, head of the Department of Poultry Husbandry, is in charge of the exhibit.

One of the special features of the many headlines at Farmer's Week will be the opening of the series of truck and tractor schools to be conducted by the M. A. C. this year. The first of these four weeks' schools opens February 2, and visitors at Farmer's Week can get a chance at least to look in on the experimental work. A much larger enrollment is assured than last year's, and numerous innovations are planned. Gasoline power is going ahead by jumps and the need of skilled workers for trucks and tractors is becoming great among those in the farm business. Farmers who expect to visit the College during the February events are urged to look up the truck and tractor work which is making such headway.

More than a dozen makes of tractors will be used and each student will know how to run all the machines before finishing the course as well as repairing them. Things to be emphasized in the course will include ignition, valve and spark timing, carburetor adjustments, brake and fuel combustion tests, and lighting and engine trouble work.

A. M. Berridge, of the M. A. C., is head of a committee comprised of men from every department of the college designated to take charge of the gigantic task of completing preparations for Farmer's Week. Knockers may come and knockers may go, but there can hardly be any knocking this year in regard to Farmer's Week. The College authorities have been going their limit in arranging for the best possible hospitality and entertainment for the farmers of the state, and it is believed that the great majority of farmers appreciate the efforts being put forth.

Said one prominent official at the M. A. C. the other day, "the College belongs to the farmers of Michigan and it wants all the farmers to get away and take physical possession of the institution for the first week in February this year. We want as many farmers as possible to see that the College is doing real, vital, practical business. By coming to Farmer's Week the farmers can not only find out these things for themselves, but also they can take one more step in the great business of getting together."

Farmer's Week has a splendid tradition to keep up. Before last year it had done good work under the name of "Farmers' Week and Housewives' Congress." But last year it broadened out into wider fields simply under the name of "Farmer's Week." The Michigan Livestock Breeders and Feeders Associations, the Farm Bureaus, the Crop Improvement Association, the Muck Farmers, the Poultry Breeders, Drain Commissioners and Maple Syrup Makers and others joined in making the affair a big one. More than 5,000 attended last year.

This year, the great advancing strides are expected to keep on, and some estimates put the expected number of visitors at around 10,000. The college is resounding with preparations for the event and hopes to make this by far and large the best Farmer's Week in history.

## Collective Bargaining vs Collective Dictation

THE following statement, given out by Hon. Jonathan Bourne, Jr., president of the Republican Publicity Association, coincides exactly with the arguments that Michigan Business Farming has presented against the collective "dictation" of labor unions in comparison with collective "bargaining" desired by the farmers:

"The hope of labor union leaders that they would be able to enlist the aid of organized farmers was doubtless due to the fact that the agricultural producers have been endeavoring for many years to better their condition through the adoption of the policy of 'collective bargaining,' says Mr. Bourne. The labor union leaders failed, however, to note one vital difference between the policy adopted by themselves and that pursued by organized farmers. The farmers have endeavored to utilize collective bargaining in a thoroughly democratic manner. The labor union leaders, on the other hand, have endeavored to transform collective bargaining into collective dictation, in a manner that is autocratic.

"Fruit producers, grain producers and cattle producers have endeavored to secure better prices for their products by pooling their output and bargaining with buyers for the sale of the total. They have never, however, forbidden or endeavored to forbid any other farmer from selling his product anywhere, at any time, at any price. The effort of the organized farmers has been entirely legitimate, conducted for a proper end and by proper means.

"With collective bargaining on the part of labor unions there is no

material fault to be found so long as it is bargaining in fact. The flaw in the labor union procedure has been, however, that the union not only proposes to sell its own labor at prices which it may fix by collective bargaining or dictation, but it proposes to deny to any other man the right to sell his labor at any other price. It denies the fundamental principle of individual liberty. It endeavors to enforce the rule that no man shall work unless he first subscribes to the contracts of the labor union and renders himself subject to the mandates of the walking delegate.

"This policy the farmer has never adopted and never will adopt. Such a policy is contrary to the principles of the American government, and, though it may succeed temporarily, it must fall eventually because antagonistic to the public welfare. It is quite possible that a group of agricultural producers could organize its particular branch of agriculture so extensively and adopt methods so severe as to practically dictate the price of its output. Organized dairymen, for instance, might for a time intimidate non-union dairymen by overturning their milk wagons, shooting their drivers, poisoning their herds, and bombing their families, but such methods would not long succeed. Nor is there any danger that such methods will be adopted. Agricultural producers are owners of property; they are heads of families; all their interests are aligned with law and order; all their methods therefore will be in accordance with law, and with full recognition of the rights of others.





# Better Crops Thru Knowledge of Soil Moisture

*Taking Advantage of Facts About Relationships Between Water and Plant Life*

By M. M. McCool.

**I**N THE LAST article the ways in which the water in the soil is held and the water retaining capacity of different kinds of soil were considered. In order that the reader may have a better understanding of the discussions of moisture control that are to follow, the relationship of crops and soil moisture is to be presented.

It has been long known and appreciated that the water relations of soils and crops are of tremendous importance in crop production. The loss of water from the leaves of plants and the conditions that may increase or decrease this amount have been studied from time to time by many investigators since about 1699, and as a result we have at our disposal much valuable information regarding this subject. In view of the importance of this matter we are to discuss in this article, 1. What water does in the plant. 2. How water enters and leaves the plant. 3. Root systems of crops. 4. Water requirements of crops. 5. Conditions that affect the water requirement, and 6. How to make the best use of soil moisture.

It was stated previously that water is the means of conveyance of the mineral plant food from the soil to the roots of the plants. Upon entering the roots these must be transferred to the stems and leaves and flowers of the plant, and here again water is essential. Just as soon as there is a deficiency and the plant wilts, the movement of these into and within the plant ceases and growth likewise leaves off. Furthermore, water in itself is a plant food and becomes a part of the plant tissues. Moreover, leaves of plants that are supplied with water may be cooler by several degrees than the temperature of the air surrounding them. In some instances this is probably a means of protection against extreme heat.

Practically all the water that leaves the plant does so through the root system and is removed mainly as the film water that surrounds the construction, or structure of the root construction, or structure of the root system of plants is essential for full understanding of the moisture relationships of soils and crops. Under ordinary field conditions the main absorbing portion, or the part that actually removes water from the soil is generally spoken of as root hairs. These are minute very thin walled elongated single cells that are sent out from the surface of the very young portions of the roots. On account of their soft or mucilaginous like nature they are able to pass between or around the soil grains or groups of soil particles, thus affording very intimate contact with them. The tips of growing roots are also instrumental in taking in water. These are composed of masses of soft thin walled cells.

The number of root hairs and therefore the extent of the absorbing system of plants vary with the moisture content, as a rule, when the water supply becomes somewhat low, there results an enormous increase in the numbers. It has been estimated that the root hairs present on the roots of corn under average conditions increase the surface in contact with the soil mass about five times, and barley twelve times. If the water content is decreased the surface in contact with the soil may be more than doubled. This, of course, affords a wider feeding zone of the root system. Moreover, the nature and amount of the plant food present affects the numbers formed.

Owing to their thin walls, their intimate contact with the soil particles and therefore, the film water, the root hairs are able to readily withdraw water from the soil mass. As the water enters these it is pulled or forced inward and upward thru the larger portions of the root systems, and from thence into all parts of the above ground portions, and is finally given off to the atmosphere through small openings in the leaves of the plants.

The methods of penetration of roots through the soil mass is extremely interesting. Nature wisely so arranged that the development of the roots of plants takes place just back of their tips. The divisions at the tip are few in number, and thus the root advances by means of continually forming cells. In other words, the whole root is not pushed through the soil as one would a wire but only a small and continually forming point does the advancing. Fortunately the root hairs are formed just back of the advancing tip, and are therefore not dragged or pulled off as it enters the soil mass. Moreover, it is well known that the root hairs usually become inactive after they are a few days old.

It was shown in the previous chap-

ter that the film movement of water in soil is quite slow and that most of the water that plant removes from the soil is that which lies within the zone of root penetration, and that which falls as rain during the growing season. Such being the case, the depth of the root penetration of crops is of vast importance, so far as the water supply is concerned. The nature and extent of root development of crops differ markedly. Some crops are coarse, some fine, some deep, some moderately deep and some shallow rooted.

Where it is low, other conditions the same, the amount of water transpired is less than where it is higher. A single corn plant on a very hot dry day may lose 10 lbs. of water through its leaves, whereas on days of more normal temperature much less. It has been shown that the natural vegetation is a good indicator of crop production, so far as climate is concerned. Attention should be called to the occurrence of short grasses, such as buffalo and grama grass in the semi-arid region extending from Montana to Texas. On the westward it is limited by arid conditions and on the east by competition with other grasses. In this belt in Montana the annual rainfall is 14 inches, while in Texas it is

unit of dry matter formed would be decreased, the great drain on the soil's supply of moisture by the large development might at a given time result disastrously. Or it seems if the addition of manure, or fertilizer, appreciably increases the plant growth, the total amount of water the soil must furnish to the crop is greater than if the fertility had not been increased unless the rate of seeding is thinner.

The water cost of different crops varies greatly. The amount of water required to produce one pound of dry matter of several crops in the latitude of central Michigan lies between 300-500 lbs. Weeds require about as much water for their growth as the ordinary crops, as the estimates given bring out.

## Relative Water Costs of Plants

Legumes, pounds	450-700
Small grains, lbs.	300-450
Sorghum, lbs.	250-350
Millet, lbs.	250-350
Weeds, lbs.	300-550

It should be remembered, however, that the climate and soil conditions spoken of above may either increase or decrease these amounts.

Now, let us suppose that the water cost of wheat is 400 and the dry matter produced is two tons per acre. This means that 800 tons of water must be supplied by one acre of soil, or about 7 inches of rainfall. Moreover, we should not lose sight of the fact that enormous quantities must be supplied in short intervals of time, more than the weight of the plant on hot days must be furnished, as was stated to be the case with corn and that this estimate does not take into consideration the loss from the surface of the soil.

An important consideration in arid or regions of low precipitation is the effect the extent of the leaf surface exposed has upon the water cost. It has been shown by the Nebraska Experiment Station that where the leaf development of corn was reduced 14 per cent by selection that the water cost was reduced 16 per cent. Moreover, varieties of the same crops may differ appreciably in the amount of water required to produce a given yield.

It has also been shown that young plants require more water for the production of a given amount of dry plant material than do older ones, and this is held to be of some importance in grazing lands under conditions of low rainfall. One would obtain more dry matter for a given amount of water in the soil by not grazing until an appreciable growth had taken place.

In order to make the most economical use of soil moisture which must be done over large areas each of the above conditions that affect the amount of water required should be considered. If the rainfall is deficient or not properly distributed through the growing season, crops with extensive root systems should be grown if possible, inasmuch as they have larger soil areas from which to withdraw water than do the shallow or less extensive rooted crops. Moreover, if a section is so situated that the temperature and wind velocity are high crops that mature early in the season or that have a minimum leaf surface and low water cost may be grown. Frequently, south slopes are unsuitable for certain crops when the opposite or north slopes are ideal for them. Again, crops that have large leaf surfaces and require large amounts of water are usually more suitable for low moist areas than they are for upland or exposed situations. As will be shown later on some crops thrive best on soils of fine texture and others on soils of coarse texture, and as a general rule, they make the most economical use of the water at their disposal if they are adapted to the soil and other conditions under which they grow.

## Getting the Edge on Drouth and Storm

**F**ARMERS are going out harder every year in their age-old fight to conquer natural conditions which tend to ruin or hinder crops. A thorough knowledge of soil moisture in relationship to crops is one of the greatest helps in this fight; so Prof. M. M. McCool, soils expert at the Michigan Agricultural College, has gathered the best available facts on the subject.

This article, while containing valuable tips, is more or less introductory to some of the articles which will follow.

In order to understand better the gold mine of information which is to follow, it is a mighty good hunch to hear what the leading soils authorities have to say on the subject in this installment.

There are several conditions that may and do affect appreciably the extent of the root system of a given crop. It is generally considered that roots of plants penetrate more deeply in soils formed in regions of low rainfall than they do in those under humid conditions. Again, if the moisture content is somewhat low there is a greater root development than if it is higher. Moreover, numerous investigators have shown that the branching or roots is much greater in soils that contain an abundance of plant food materials than in those which are lower in them.

## Water Requirement of Crops

It was previously stated that there is at all times a movement of water from the soil to the roots and from them to the above ground portion of the plant, and it necessarily follows that there is a constant loss of water from these above ground portions to the surrounding atmosphere. This loss is spoken of as transpiration, or we say corn plant, for example, transpires or loses so much water during a given period. There is another term that we shall use in this discussion, namely, the water cost of a crop. By this is meant, the amount of water required to produce a given weight of dry plant material, expressed as the number of pounds of water required to produce one pound of the dry material.

Now the water cost of a given crop varies with such conditions, as 1. Climate or temperature, water vapor in the air, wind movements, 2. The soil, or the nature and strength of the soil solution, and 3. Crop or the extent of leaf surface, and the age of the plant.

The temperature of the air great-

ly affects the water cost of crops. Where it is low, other conditions the same, the amount of water transpired is less than where it is higher.

In addition to temperature the amount of water vapor in the air or its relative humidity is important. Where the air contains much water vapor the loss of water from the leaves of plants is less than if it contains very little. Thus plants growing in low moist situations require less water for their development than those growing under drier conditions. Celery grown on low lying muck land uses less water than if it is grown on the same soil transported to higher situations because of the dampness and cooler temperature of the air.

Now if the temperature is high, the relative humidity low, and the wind movements are strong the amount of water that the soil must furnish to the plant is indeed greater than if the wind movement is much less noticeable. During a hot, windy day corn and other plants may wilt but when the air is cooler and the wind dies down at night they again become rigid.

It was proven many years ago that crops grown on fertile soils have a lower water cost than if grown on soils low in fertility. Recently Kieselbach, of Nebraska, determined the water cost of corn grown in soil of different degrees of fertility.

He found the water cost to be about 569 pounds where the corn was grown on very poor soil whereas it required 494 pounds in soil of intermediate fertility and only 333 pounds in fertile soil.

It is very probable that the tendency for some of Michigan's thinner farm lands to suffer early from drought is due to an insufficient supply and lack of proper balance of plant food elements in them. Careful husbandry or rotation of crops and intelligent soil fertilization should affect the conditions favorably. At first consideration one might lay too much emphasis on this feature. Suppose by the free use of plant foods that the leaf and stem development was markedly increased, although the water cost per



# State Taxes Increase 750 Per Cent. in 24 Years

Corruption in High Places, Inefficiency of Public Officials, and Multiplicity of Commissions Blamed for Huge Increase



where in evidence in the expenditure of the public's money, it must be that we get far greater value for the money we pay in taxes than did the people of the early European dynasties.

The most fruitful cause of rebellion since the earliest stages of government has been excessive taxation, or taxation without representation, usually resulting in excessive taxation. The history of many governments seem to show that, starting with a nominal levy against property owners, the tax was gradually increased year by year until it became burdensome and the people revolted. Except in cases where unusual demands upon the public exchequer to pay war or other abnormal indebtedness have been satisfied the tax rate in all countries advance, and seldom if ever declines. So the tax rate becomes a

taxes are needlessly high, and believes that the subject should be thoroughly discussed and the next legislature importuned to adopt remedial measures. The accompanying article is the first of a series to be published during the balance of the winter months upon the subject of taxation.—EDITOR.

**E**C. FERRIS, of Alma, Gratiot county, owns a farm of 80 acres. Twenty-four years ago the farm was assessed at \$1,600, and Mr. Ferris paid a tax of \$18.73. His tax receipt, dated Feb. 22, 1896, is reproduced below. Twenty-two years later, the assessed valuation had been increased to \$9,000, and on Dec. 18, 1918, he paid a total state, county, township, etc., tax of \$245.47, an increase of over 1,000 per cent. The following year, the valuation of his farm was increased to \$14,000, and according to his tax receipt printed below, he paid taxes aggregating \$334.60, or an increase over 1896 of nearly 1,800 per cent. What's the answer?

The answer is partially this: The cost of living has increased. Food, clothes and supplies in our public institutions cost nearly double what they did a few years ago. Salaries to instructors are higher; road materials cost more, and we are building a much more expensive type of road than formerly and upon a larger scale. As population increases, the cost of developing the government and its various functions for meeting the needs of the people, also increases. But that answer will not provide a complete solution to the increase in taxes.

Another reason for higher taxes is the inefficiency of government. Political parties and politicians have fallen into the evil habit of using the offices and influence of government to provide salaried positions for their friends, and their friends' friends. Scarcely a session of the state legislature passes by but what some expenditure is authorized which is not to satisfy an urgent need, but to give patronage to somebody in payment of political debts. Instead of creating positions, boards and commissions to meet expanding needs, our legislature too often casts about for work to keep their boards and commissions busy. The number and cost of state boards and commissions have increased enormously the last few years. The citizens of the state will, for instance, live in fancied security until the legislature meets and discovers that the burglars and highwaymen and murderers are

## How State Taxes Have Increased

Tax Levied 1895	\$3,013,919.52
Tax Levied 1896	2,068,538.62
Tax Levied 1906	3,383,785.29
Tax Levied 1907	4,884,852.67
Tax Levied 1910	4,729,000.07
Tax Levied 1912	5,452,308.15
Tax Levied 1915	9,507,090.51
Tax Levied 1916	7,220,831.20
Tax Levied 1919	17,430,895.73

## Taxes for Gratiot and Wayne

	Gratiot	Wayne
1895	26,671.85	\$ 506,765.23
1896	39,308.04	383,721.30
1910	43,633.03	970,834.44
1916	91,675.52	2,400,540.35
1919	175,858.37	6,156,205.01

abroad in the land and the people must be protected. Hence, a bill is rushed through creating the state constabulary. And why not? It only costs a half million dollars a year to maintain, and look at all the grapes the constabulary will save from the marauding bands who make our highways and by-ways a perpetual menace! Or, again, someone discovers that the state is drifting into an anemic, effeminate condition that needs to be remedied by instructing the youth in the manly art of boxing. So the legislature creates the boxing commission and the brutal pastime of prize-fighting is with us again.

Almost every session of the legislature brings to Lansing some inspired legislator who feels that he is the ordained exponent of some mighty mission that can only be carried out by the adoption of new laws or the making of new commissions. Not infrequently he succeeds in convincing the majority of his colleagues that his pet idea is vital to progress or perhaps his colleagues, being gentlemen of foresight readily agree to his proposal to put him in their debt since the time may undoubtedly come when some among them may have an idea they want to sell to the state. Thus jobs are created, boards and commissions come into being, expenditures climb and the tax rate takes the air route.

Another reason why some taxes are high, those of our Gratiot county friend, for instance, is because some other citizen is not paying his just share. The state of Michigan generally, but the county of Wayne and the city of Detroit, in particular, have been blessed with wonderful expansion and prosperity the last decade. The population of Detroit has doubled; the property value has tripled and quadrupled, and it surely seems that the increase of wealth ought to be sufficient to meet the growing expenses of government with but very little if any increase in the tax rate. A comparison of the taxes levied in Gratiot and Wayne counties shows that the Wayne county tax has been increased over the Gratiot tax about as two to one.

On the face of it this looks like a fair spread, but when we take into consideration the enormous development of Detroit and the increase in the valuation and rents

(Continued on page 19)

**A** WISE OLD philosopher observes that people abhor taxes. He finds that about the most persistent human trait that has come down through the centuries from the days when the first title

matter of concern to every citizen, to be watched and weighed, lest it become a millstone about the neck and drag him to ruin.

Taxes in this state have increased so rapidly the past few years that

1896-1897  
Treasurer's Office, Pine River Township, Gratiot Co., Mich. Feb 22 1896  
Received of J. W. Sutton Paid by C. C. Ferris  
The sum stated below, for taxes assessed upon the following described tracts of land and personal property in said Township for the year 1895.

DESCRIPTION	Acres	Valuation	State Tax	County Tax	Township Tax	School Tax	Highway Tax	Other Tax	Total Tax
200 ft. N. 1/2 Sec. 17, T. 12 N., R. 10 W.	31	1,600	18.73	1.20	1.20	1.20	1.20	1.20	18.73

Edmund Schumacher Township Treasurer

was collected is the habit of hawking and evading taxes. A citizen, he says, may cheerfully meet any expense of commodity and luxury and feel that he is getting the worth of his money, but he invariably pays his tax bill under protest and escapes it altogether if possible.

It is not the part of good citizenship to be perennially complaining about the taxes. We have taxes because we have schools, highways, public institutions, police and fire protection, and numerous other advantages which are only possible under some form of central government or authority. The necessity of some kind of tax against the people who enjoy the benefits of the tax is established, and we have now only to treat with the methods of taxing and the amount to be collected. Under the old despotic form of government people were taxed into veritable serfdom, but we of today pay a ridiculously small part of our income to the state. And this is true despite the fact that our form of government is much more complex and expensive to administer than the old monarchical forms. Notwithstanding the extravagances that are every-

TAXES 1918  
Received of C. C. Ferris  
Upon the following described tracts of land and personal property, the sum stated below being the Taxes assessed in said Township for the year.

DESCRIPTION	Acres	Valuation	State Tax	County Tax	Township Tax	School Tax	Highway Tax	Other Tax	Total Tax
80 ac. N. 1/2 Sec. 17, T. 12 N., R. 10 W.	80	9,000	245.47	15.00	15.00	15.00	15.00	15.00	245.47

Dep. E. Hayes Treasurer

they have become a real problem and a burden upon the average land-owner. Farmers are complaining bitterly that they cannot afford to pay such high taxes. They point out that while the market value of their farms has increased very materially the last ten years, the producing value has remained practically stationary, and that the increase of taxes is wholly out of proportion to the higher prices received for their products. MICHIGAN BUSINESS FARMING does not desire to complain against taxes for the pure sake of finding fault. It feels, however, that

TAXES 1919  
TREASURER'S OFFICE, TOWNSHIP OF PINE RIVER, GRATIOT COUNTY, MICH. Dec 19 1919  
Received of C. C. Ferris & Son  
Upon the following described tracts of land and personal property, the sum stated below, being the Taxes assessed in said Township for the year.

DESCRIPTION	Acres	Valuation	State Tax	County Tax	Township Tax	School Tax	Highway Tax	Other Tax	Total Tax
80 ac. N. 1/2 Sec. 17, T. 12 N., R. 10 W.	80	14,000	334.60	20.00	20.00	20.00	20.00	20.00	334.60

Geo. W. Townsley Treasurer

Gratiot Farmer's Tax Receipts for 1896, 1918 and 1919



# Changing Michigan Sand Lands to Fertile Acres

Schmidt Farms in Iosco County Revelation of what can be done with Soils once Believed Unproductive

By JUDSON GRENNELL



HAVE you learned any new wrinkle in farming this year?" The question was put to Carl E. Schmidt, as we sat toasting our shins around his fireplace one cool August evening. The logs were merrily blazing. Outside the wind was rising, and the chill in the air made the fire attractive and comforting. For Walhalla is far enough up state to get early intimations of fall weather, though this notification is modified by the fact of being less than a mile from Lake Huron which continues to take the "nip" out of the air long after localities further inland have been frostbitten.

Walhalla is some eight miles north of Oscoda. It is in the very heart of the pine barrens region. What with scrub oak and jack pine plains, and sand "reaching to China," one might travel the world over without finding a locality less likely to offer encouragement for profitable farming. Indeed, when Mr. Schmidt decided to become a farmer, some 14 years ago, he said to his buyer:

"Find me the very worst land in Michigan on which it is possible to raise crops."

That is why Walhalla came to be located in Iosco county.

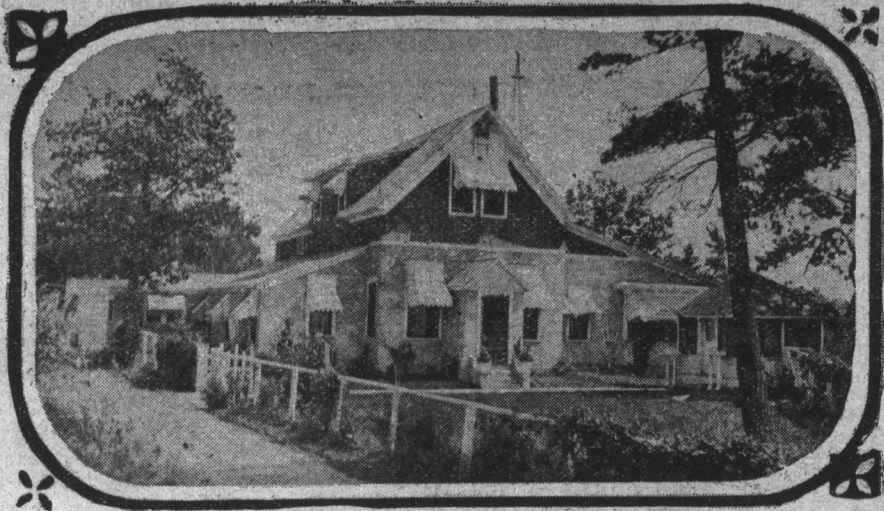
Mr. Schmidt answered offhand my question as to the latest wrinkle in farming. Anything new he discovers in the farming line is free to the world. And he is willing to advertise his failures as freely as his successes. For each failure, as well as each success, holds a lesson for those who are willing to profit by the experience of others.

"I have learned this year at least one thing that will eventually be of great value to all farmers," said Mr. Schmidt. "I have learned how to keep crows out of farmers' grain fields. And the thing is so simple that it is a wonder no one has before caught on to it. Hereafter, if any farmer suffers loss from the depredation of crows, it will be his own fault. It is only necessary to mix tincture of aloes with red, blue or green analine dye, and sprinkle this mixture on the seed before planting.

"Crows will not bother his field more than once. The first taste satisfies them that it is no feeding ground for crows. Nothing doing. They leave severely alone the seed thus treated.

"And the cost is nominal—not to exceed five cents a bushel. If, because of the moisture, the seed has a tendency to stick together, mix it with some fine sand. I have tried it and it works. There will be no failure."

Mr. Schmidt now has 800 acres of sand lands under cultivation, and producing profitable crops. He has 2,000 acres of grazing land—land that has been cleared and seeded—and on which are 500 sheep, 50 cows and calves, 40 or more horses, 1,500 chickens and a dozen pigs. And he has demonstrated that on Michi-



Walhalla farm house, in the heart of Iosco county sand plains.

gan's most undesirable soil, from an agricultural point of view, it is possible to successfully and profitably raise crops.

## A Real Land Problem

"The sand goes down 40 feet," says Mr. Schmidt. "Then there is a layer of rock salt, say 10 feet thick. And after that is more sand—25 feet of it—and again a layer of salt, but not so thick as the first layer. Then more sand and more salt in layers. Finally at 400 feet down shale rock is struck. What comes after that I do not know."

That is the kind of soil with which Mr. Schmidt has been experimenting. "I have no interest in naturally fertile soil," he said, "I wanted a real land problem to solve, and I got it good and plenty when I began with these Michigan pine barrens."

Fourteen years is too short a time in which to obtain a proper perspective of what Mr. Schmidt has accomplished in Iosco county. When, 50 or more years hence, this part of the state is all properly utilized—the sand plains under cultivation and the swamps drained and put to good use—the historian will find a rich vein of information in the data Walhalla and Serradella farms will furnish. Cedar Lake, seven and a half miles long and in some places half a mile wide, separates the two farms, but both are the property of Mr. Schmidt. Most if not all of the cultivated portion of this "domain" consisting of several thousand acres—lies west of Cedar Lake. Walhalla itself consists of the residence prop-

erty, the up-to-date poultry buildings, the stables for high bred horses, the buffalo and elk parks, and the buildings occupied by the house help. Serradella is the working farm.

The Schmidt residence is modest looking in outward appearance, but is spacious within and contains all the conveniences associated with wealth and comfort. It is approached by a causeway, each edge planted with poplars and cutting the lake in two. Swans, geese and several varieties of ducks—among them a nice flock of domesticated mallards—utilize the lake, which is well supplied with fish.

The heating (steam) lighting, (electric) and water systems (tank pressure) are the latest in these necessities to cultured living.

The names of these farms run into legend and utility. "Walhalla" has to do with Norwegian mythology—a resting place for fallen heroes. "Serradella" is from a Spanish legume which was imported through Germany where it had been thoroughly tried out; and Mr. Schmidt found it would also bring fertility to the sand plains of Michigan.

## Soil Building

The problem of soil building is the problem of making these sandy areas commercially profitable. In this direction Mr. Schmidt has done remarkable work—not to say performed miracles.

"I am a tanner, and at first blush it would seem as if farming had nothing in common with tanning," remarked Mr. Schmidt. "But such is not the fact. Both, to be success-

ful, require knowledge of biology and chemistry.

"What is the soil? What is the skin? What must you know in order to raise crops? What is needed in order to tan leather?"

"Without basic chemical knowledge and capital, failure is sure to follow either industrial activity. I have seen 27 tannery companies go out of business mainly because they were short on knowledge of chemistry; and I have seen where many times that number of farmers have failed because of lack of chemical knowledge and a few dollars."

So when Mr. Schmidt started to endeavor to make a success of farming on what, in the opinion of most people, was absolutely worthless land, he started with knowledge of the necessity of discovering the secret of arable soil. There must be nitrogen, the chief food for vegetable life, but nitrogen will not stay in stand soil without humus.

What is humus? Simply decayed vegetable matter. What is the quickest, best and most economical method of adding this humus to the sandy soil of Iosco county? Plant certain kinds of crops, and when they have reached maturity turn them under. Plant what? First, lupin; next, serradella—both leguminous plants.

There, in a few words, is Mr. Schmidt's philosophy of soil building. Legumes gather nitrogen from the air. When you have humus, you can get your nitrogen; and in nitrogenous soil crops will grow. And never spare the common but valuable barnyard manure.

## Making the Soil Stick

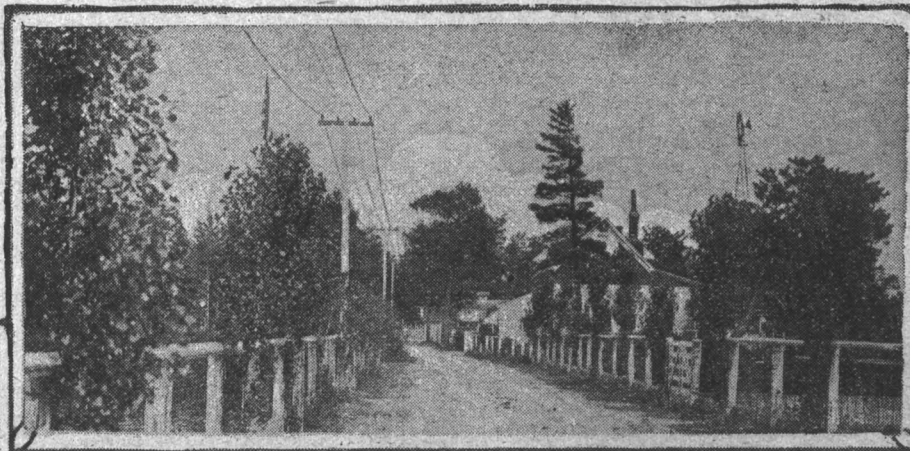
Have you ever noticed the clouds of dust raised by a strong wind blowing over a sandy plain? You will not see this on Mr. Schmidt's cultivated acres. The soil has body; it stays down! and it is aided in this by the peculiar way in which it is rolled—in ridges piled at an angle. Other things—clover among them.

After lupin and serradella come other things—clover among them. Then follows grain—wheat, rye, oats etc. After the soil has been built up it will raise corn and potatoes—two kinds of farm produce which are death to pine barrens farmers if the farming is started with them.

A drive of 50 miles or so through Iosco and Alcona counties brought to view many evidences of where farmers had started the wrong way to make their industry a financial success. These evidences were in the shape of abandoned farms.

Wandering over these sandy plains one August afternoon with Mr. Schmidt, and getting stuck occasionally in a sand pit, there was seen a newly started homesteaded farm of 80 acres. A pole fence surrounded a primitive house of logs and a couple of still more rudely constructed outbuildings. On one side of the house was a potato patch; on the other side a cornfield. Neither was promising, but possibly a few bushels of corn and potatoes would be harvested.

"Here is what these poverty stricken farmers all do," said Mr. Schmidt. "They must have something to live



Views on Schmidt farm, showing modern tenant buildings, barns, office and other up-to-date farm quarters.





on from the very beginning, and so they plant what is most likely to provide food.

"But potatoes and corn are voracious eaters; they need plenty of nitrogen. This first crop will exhaust this light soil of its nitrogen, and next year's crop will not be worth gathering. The third year the man, thoroughly discouraged, will abandon the farm. By doing odd jobs for farmers near by the homesteader may hang on a little longer, but by the end of the fifth year his vision of owning a farm will have vanished."

There is hardly a mile of this section of the state that does not indicate in some spot the futility of a poor man trying to successfully farm on these pine barrens. Trees will grow, why not crops?

#### Indians, Potatoes and Moisture

Some few miles west of Walhalla is an Indian settlement. AuSable is the greatest shipping point in Michigan for huckleberries. A few Indians are still left, obtaining a sort of living from scraping the soil of a few acres where there happens to be some clay, and eking out a living by berry picking and occasionally being a helper to some sorely driven farmer.

"Drink and the devil has done for the rest. Mainly drink. However, I noticed one very good looking potato field that seemed to warrant attention.

"Fine looking potatoes," I said:

It was Mr. Schmidt's opportunity. "These Indians," he remarked slowly, "have learned a great secret about potato raising, and they discovered it without any help from their white neighbors. No matter how dry the season may be, and other farmers' fields are burning up, their potato fields will always have all the moisture needed."

"How do they do it?"

"They plant between each row of potatoes a row of onions, and that solves the problem of moisture."

"What is the philosophy of it?"

Mr. Schmidt was in his element. The question gave him opportunity to parade his knowledge of farming.

"You see," said he, "the onions bring tears to the eyes of the potatoes, and the moisture problem is solved."

All of which demonstrates that Mr. Schmidt does not spend all his time thinking out agricultural problems.



Most of these Indians are half-breeds only a few have any of the characteristics of the "noble red man," but an occasional squaw shows in her figure and the way she carries herself why so many of the early pioneers developed a taste for squaw wives.

#### A Highway Death Trap

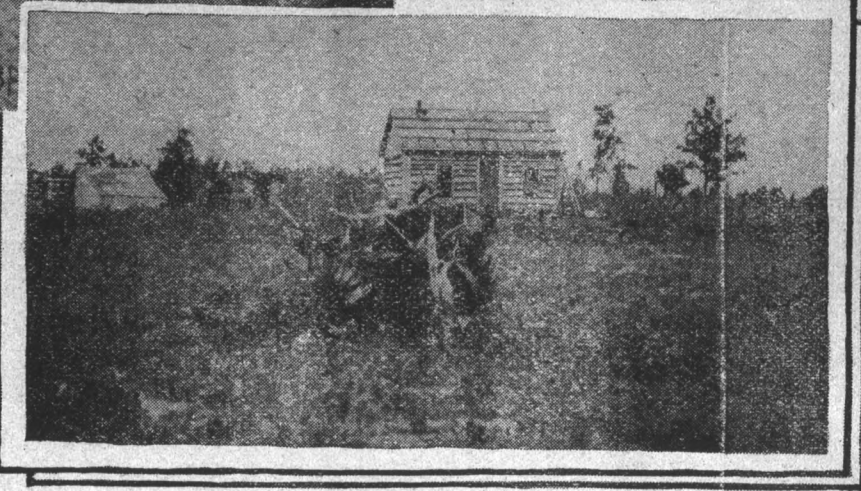
Returning over another road marked "to Harrisville," was seen a startling example of indifference to public interests. The Detroit & Mackinac railroad had worked a great gravel pit alongside their right of way. The sides had caved in so that the great hole extended directly

across the highway. Traveling in an automobile at night, if the driver should be ignorant of this particular trap, and did not discover it in time the result would be a plunge over a 30-foot embankment. And nowhere has there been placed any sign to indicate danger. Approached in the daytime, one might escape the trap, but should the machine be brought too near the edge of the pit, it would crumble before it could be backed.

Nor need one expect someone to come along in a little while and give proper directions. The region is almost entirely uninhabited, and even the main highways are not much if any different in appearance from the old logging roads.

Returning to Walhalla over a highway that would make advocates of good highways almost give up in despair of ever being able to interest people of this section in the good roads proposition, the "civilized section" of Iosco county was finally reached, and a near view was had of Mr. Schmidt's farming system.

(To be continued)

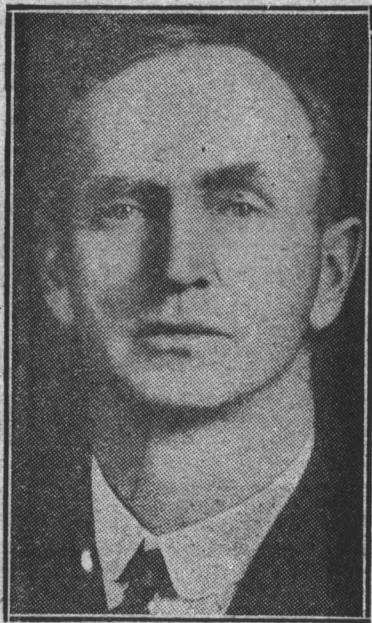


Settler's cabin and plains land in process of clearing.

## National Co-operative Live-Stock Shippers Expand Organization

E. E. Compson, Michigan Manager, Describes Work and Plans of National Association;

School of Instruction to be Held in Detroit



E. E. COMPSON  
Mgr. Michigan Live Stock Exchange

OVER 300 co-operative livestock shipping delegates, representing 21 states and four Canadian provinces recently assembled in Chicago and unanimously perfected a permanent National Federation of Co-operative Livestock Shippers. The following states in the order named were represented by the largest delegations: Iowa, Michigan, Indiana, Illinois, Wisconsin, South Dakota, Minnesota. Other states represented were: Nebraska, Ohio, Kansas, Oklahoma, Washington, Colorado, North Dakota, Missouri, Tennessee, New York, California, Kentucky, Louisiana, Pennsylvania and Canada.

#### Officers and Directors

The following officers were elected: Knute Espe, Ames, Iowa, president; E. E. Compson, Remus, Mich., vice president; John Miller, Galva, Ill., treasurer; Selby E. Peterson,

Waconia, Minn., acting secretary; Earl J. Trosper, 906 Royal Insurance Building, Chicago, organizing secretary; C. Hoover, Longmont, Colo., director; T. M. Paterson, agricultural college, Miss., director; A. S. Anderson, Beresford, S. D., director; C. H. Gustafson, Omaha, Neb., director; H. M. Phillips, Palmyra, Mo., director; J. F. Larson, Ellsworth, Wis., director; M. E. Sherman, Kendallville, Ind., director.

#### Officers Recognized Leaders

Knute Espe has organized 12 livestock shipping associations in his home county (Story) one of which he serves as president. He is associated with W. T. Barr, famous Chester White breeder, who is well and favorably known among the livestock men of the country.

E. E. Compson is state manager for the Michigan Federation of Co-operative Livestock Shippers and is one of the most able men in the movement.

John Miller is president of the Farmers' Grain Dealers' Association of Illinois, an officer in one of the oldest livestock shipping associations in Illinois, and a recognized leader.

Selby Peterson is treasurer of the Minnesota State Federation of Co-operative Livestock Shippers. It has been largely through his efforts that eight bills of immense benefit to the Minnesota livestock shippers have been put through the Minnesota legislature.

Earl J. Trosper is the originator of the National Federation idea and it has been largely through his efforts that the federation has been successfully launched. He is a recognized agricultural leader and both practical and impartial in his work.

All of the directors are recognized leaders in their respective sections.

#### Objects

The objects of this federation in

a general way are as follows:

To encourage better and more economical methods in the production and distribution of livestock and livestock products; to promote co-operative education, and to encourage the organization of co-operative livestock marketing organizations; to develop uniformity in the plan of organization and method of operation of local livestock shipping associations; to aid such organizations in problems of general interest in transportation, handling and marketing; to lease, buy, build, own, improve, mortgage, sell and control such buildings and other real and personal property as may be necessary in the conduct of its operation; and to perform any other work which may be of benefit to its members or helpful to the industry.

#### Basis of Financing

The national and state federations will be financed on a small membership fee and a per car charge basis which will be regulated from time to time to meet the needs of the shippers.

#### All Shippers Strong for National and State Federations

Such men as E. E. Compson, Remus, Mich.; W. A. McKerron, secretary Minnesota State Federation of Shippers; J. R. Howard, Clemens, Iowa; H. C. Wallace, Des Moines; I. S. Brooks, Ottawa, Ill.; S. D. Hall, Bureau of Markets, Washington, D. C.; H. W. Danforth, St. Louis, Mo.; M. R. Myers, Chicago, Ill.; J. F. Larson, Ellsworth, Wis.; representing the American Society of Equity; J. C. McGregor, Ontario, Canada, United Farmers of Ontario; M. P. Tullis, Regina, Canada, Department of Agriculture; Clifford Thorne, famous Chicago transportation attorney and others, gave strong, constructive talks favoring national and state organizations.

#### Sentiment Unanimous

Throughout the entire two days session the large delegation of live-

stock shippers, representing 21 states refused to disagree. The National constitution recommended by the official committee was adopted without an important change. All states delegations were eager that the organization stand on its own feet to the end that all co-operative livestock shippers, regardless of location of affiliation with other farm organizations, be accorded uniform recognition.

#### States Makes Definite Plans to Organize

The following states went on official record at the meeting requesting the service of the organization secretary in helping them perfect state federations of livestock shippers at Indian, Fort Wayne, Dec. 11; Colorado—Ft. Collins, Feb. 15; Illinois, prior to Feb. 15. Iowa, South Dakota, Wisconsin made definite plans to federate, date to be announced later.

#### Short Courses for Managers

Successful short courses for managers and others interested have already been held at St. Louis and Kansas City. Similar short courses will be held at all leading terminal markets including: Omaha, Sioux City, Denver, Chicago, Detroit and St. Paul. The dates are as follows: Detroit Michigan, Michigan Central Stockyards, Feb. 10 and 11; Chicago, Ill., Feb. 17, 18 and 19; Omaha, Nebraska, Feb. 23 and 24; Sioux City, Iowa, Feb. 26 and 26.

The national federation has completed arrangements with the U. S. Bureau of Markets to have Doty, of the Chicago Bureau of Markets supervise the various schools.

Note: The National Federation will welcome letters from the agricultural press requesting specific information for publication also offering constructive suggestions as to need in their territory.

Notes: A bulletin covering organization and developments to date will be available for distribution in the near future.



# Milo Campbell Announces Platform on Which All Interests Can Unite

*Candidate for Governor Takes Progressive Stand on Issues in which People of State are Vitally Interested*

**M**ILO CAMPBELL has definitely accepted the invitation of the farm organizations to become a candidate for Governor, and has publicly announced that he will make the race on the Republican ticket, having been a life-long adherent to Republican principles. Mr. Campbell also announces a "platform" which makes his position clear upon the most important matters now before the public eye. It contains a good deal that should appeal to the common sense of the average citizen, man or woman, farmer, laborer or commercialist. There is nothing in the program that savors of class distinctions or a desire to secure class privileges through the power of the law. Legitimate business interests that have shrunk from the idea of farmers taking a hand in state politics lest they abuse the privilege, may find reassurance in Mr. Campbell's pronouncements, quiet their fears and co-operate with the farmers in the name of good government.

Mr. Campbell returned last Sunday from Washington and will devote the major part of his time from now on to his candidacy. He is a born campaigner, a good "mixer," because he understands the problems of most of the people whom he meets and can discuss them familiarly and with authority. Moreover, he is a good platform speaker, and being heart and soul with the themes he has preached during his long career of public service, will have no difficulty in holding his place with any of the other gubernatorial candidates. Those who have never met Mr. Campbell will now have that opportunity as we are informed that he intends making an aggressive speaking campaign throughout all the rural districts of the state.

News of Mr. Campbell's candidacy has spread rapidly throughout the state and the majority of the press comments thereon have been of a favorable nature. Several newspapers have voiced their disapproval of Mr. Campbell's having been announced as a "farmer candidate," believing that the governor of Michigan should be elected by and made responsive to all classes of people. Otherwise, this publication regards Mr. Campbell in a very favorable light. Except for the fact that Mr. Campbell has been active as a farmer and a farm organization leader and has been endorsed by the farm organizations, he will run as the candidate of ALL the people, as he properly should. There can be no

## TO THE PEOPLE OF MICHIGAN:

I have just received an urgent request that I become a candidate for governor from a conference committee appointed by the various farm organizations for that purpose.

I have previously received pressing invitations to the same effect from organizations in other lines and from widely different sources.

As a result I have decided and now announce that I am a candidate for the Republican nomination for governor.

In doing so, I wish to say that I shall endeavor to become the standard bearer of certain great principles which I regard as vital, and in their interest shall devote all my energies to a vigorous campaign, not merely in the hope of becoming governor, an honor which I do not covet for itself alone, but in the hope of furthering those principles, which is the highest ambition of my life.

There will be no pussy-footing in my campaign. I shall, from time to time, make plain statements of my position on public questions, realizing that I may invite serious opposition but believing the people are entitled to know what to expect from me.

I shall stand on the following platform:

**FIRST**—Americanism.

**SECOND**—Republicanism. Subject to my duty as an American, I shall adhere to the principles of the Republican party, of which I have been a lifelong, active member.

**THIRD**—Collective bargaining for both farm and industrial labor.

**FOURTH**—Improved conditions and an adequate wage for labor.

**FIFTH**—A basic eight hour day in industry but not a shorter day. With the present pressing need for production we cannot prosper on half time.

**SIXTH**—Against the demands of the "red" element in labor unions and for the apparently successful effort of constructive leaders to prevent their domination.

**SEVENTH**—Proper relief for disabled soldiers and sailors. Where the federal government has failed to function adequately for this purpose, I believe the state should supplement its work.

**EIGHTH**—Reduction in the number of state boards by combining groups of related activities along the lines successfully worked out in Illinois.

**NINTH**—The proper recognition of women in matters of government.

**TENTH**—Certain reforms in insurance laws which, without injury to insurance companies, will greatly benefit the insured. But not state insurance.

**ELEVENTH**—Good roads and such internal improvements as will make Michigan a better state.

**TWELFTH**—Official independence. I shall make no promises in advance of the election, either of positions or policies except as contained in my public announcements.

Hoping my platform and candidacy will win your approval, I am,  
Sincerely,

MILO D. CAMPBELL.

question about this. Farmers will support Mr. Campbell because he is acquainted with their problems and will give them the attention which their importance deserve, but at the same time he will not overlook the needs of other people.

**J**UST AS interest was beginning to get lively in our straw vote for Governor we are obliged to bring it to a close because the farm organizations have endorsed their man, and there ought not to be any

other choice for the farmers. A total of over 1,700 votes has been received to date, and had the vote run another month we are sure that at least 5,000 votes would have been cast.

A number of our readers are taking considerable interest in the presidential situation, and at their request we will begin in the next issue a straw vote for President. There are any number of candidates for the job, but whether any of them measure up to presidential requirements is a matter upon which the public

differs. There is some talk of booming Ford as a possible Michigan candidate on the Democratic ticket. Wood and Lowden supporters are busy in the Michigan field and a number of "Wood for President Clubs" have already been organized. Sen. Poindexter of Washington, who was the first to declare his candidacy is finding it hard to drum up sentiment in his behalf. As the Detroit News recently puts it, "has anybody seconded Sen. Poindexter's nomination?" The press generally does not take the Poindexter candidacy seriously. The Senator is too "western" to suit our cultured eastern brethren. Hiram Johnson has filed petitions in several Republican preferential elections, and will be a factor to be reckoned with. Harding of Ohio also looms up as a possible contender.

On the Democratic side, Wm. Jennings Bryan is loose again, and he threatens division if not disaster among the Democratic ranks.

His determined stand on the League of Nations has considerably upset many of the strongest democratic leaders, principal of whom is Wm. G. McAddo, the president's son-in-law, and it is declared that within-law, A. M. Palmer has showed himself a good politician if nothing more. He has forced himself into the limelight with reckless abandon the past few months, staging spectacular verbal fights against the profiteers, and more recently employing the secret service in some very questionable raids and arrests without regard to their constitutional rights of those affected.

Another proposition that will be included in the straw vote is the disposal of the railroads. The question as it stands today is whether the government shall continue to operate the roads at present with a small monthly deficit but no increase in rates, or whether they shall be returned to private owners, and freight rates increased enough to pay the owners a six per cent net on their watered stock. The farmers are the big freight payers of the country. Let them decide what shall be done with the roads. The Cummins and Edge bills are now in conference. Neither railway executives or employees approve of all provisions of these bills. A compromise may be affected, however, within another five or six weeks, so if the farmers are to make their wishes known, they must get busy AT ONCE. Watch for the coupon. ALSO, WRITE YOUR CONGRESSMAN AND SENATOR.

## Beet Growers, Turned Down by Manufacturers, Begin Organized Fight

**T**HE FIGHT is on. The sugar beet growers of Michigan, thru their committee, have failed to gain a conference with the manufacturers on the 1920 contract, and there is no alternative now but to hoist the flag and scrap the issue out upon its merits.

This is what the growers' committee definitely decided to do at their meeting in Owosso last Saturday afternoon. Chairman Ketchan who had sought by every honorable means to secure the attention of the manufacturers to the terms of the growers, presented letters to the committee from various manufacturers, all stating in effect that they did not care to meet in conference, that the present contract was good enough for them, that the sugar beet content this year is low anyway, etc. Not a single manufacturer gave the committee any encouragement that the growers could expect a more equitable share of the 1920 sugar profits.

The committee will lose no time now in thoroughly organizing the entire sugar beet territory. Despite the claims of the manufacturers that the majority of the contracts are signed, investigation proves that this is not the case. It is true that some farmers have signed, but a good many of them did not grow beets last year, and are not generally classed

### ATTENTION, BEET GROWERS

Mass meetings for the purpose of thoroughly organizing against the arbitrary stand of the manufacturers will be held at the places and on the dates listed below:

St. Johns, Clinton county, Jan. 19; Ithaca, Gratiot county, Jan. 20; Owosso, Shiawassee county, Jan. 21; Saginaw, Saginaw county, Jan. 22; Pigeon, Huron county, Jan. 23; Sandusky, Sanilac county, Jan. 24.

as beet farmers. It seems very evident that the majority of farmers who have grown the majority of beets in the past have not yet signed their contracts for the 1920 acreage. So the success of the growers in getting a better contract depends wholly upon the extent and strength of their organization.

Mr. C. E. Ackerman of Durand has been put in charge of the work of organizing and the campaign will be started at once. As noted above, mass meetings are already scheduled for the following week when committees will be appointed and all the townships of the principal beet growing counties intensively canvassed.

As the sugar beet situation stands today the manufacturers will make enormous profits on the 1919 and 1920 crops, and they have failed to produce a scrap of evidence to the contrary. Some farmers may be satisfied with the terms of last year's contract but the great majority are

not. Bay county farmers are determined almost to a man not to grow a single acre of beets unless assured of a price that will net them \$15 per acre or better. While farmers of other counties do not feel quite so strongly about the matter, there is plenty of sentiment showing that the dissatisfaction over the old contract is widespread. Even were the farmers entirely satisfied that they were making fair profits under the old contract they ought to insist on a fairer division of the consumer's dollars. The manufacturers ought not to be permitted to make a greater profit than the farmer, in proportion to the investment and risk involved.

Sugar beet growers, this is your opportunity to show your loyalty to your brother farmers and to the sugar beet industry of the country. Michigan is not the only state where the growers have been compelled to

organize to secure their just rights. The contest has been staged in other states and the national convention of growers to be held soon in Salt Lake City, will be a mighty protest against the arbitrariness of the sugar manufacturers and their autocratic manner of dictating the terms of the contract. The eyes of beet growers in other states will be upon the Michigan growers. If we in Michigan succeed in the undertaking we have inaugurated, they will be cheered to push ahead with their campaign. If we fail, they may fail and the backbone of the farmers' honest efforts to secure what plainly belongs to him may be broken. We consider the issue between the growers and the manufacturers of vital consequence to all Michigan agriculture. The fight MUST be won. There can be no compromise. The sugar manufacturers MUST be forced to come to the front and lay their cards on the table alongside the farmers! The farmers are willing to let the public judge the merits of the case, but the manufacturers shrink from such a parading of their profits. Organization will turn the trick for the farmers, but it must be 100 per cent organization, without a single slacker in the bunch. Talk this proposition over with your neighbors. Stand by the organization and you'll be amply repaid for your loyalty.



# Farmers and Labor Heads Petition Congress to Retain the Railroads

Big Conference at Detroit Also Takes up Proposal to Eliminate Food Middleman

THE FIRST conference between farmers and laboring men ever staged in Michigan took place last Friday at the Fort Shelby Hotel, Detroit. The primary purpose of the meeting was to discuss the railway problem and take action toward advising Michigan congressmen and senators of the wishes of Michigan labor and farm organizations as to the further operation of the roads. All present declared themselves strongly opposed to the Cummins bill and in favor of the retention of the railroads for a further period of at least two years or until such time as congress can pass legislation that will adequately protect the interests of all parties concerned in the country's transportation.

Most of the labor heads declared themselves in favor of the Plumb plan, but the farmer representatives withheld whatever views they had upon the plan and cautioned the labor delegates that they were not in a position to speak officially for their members upon that proposition. Some of the labor heads also spoke against putting the meeting or any delegates upon record on the Plumb plan, frankly admitting that many of the railroad men themselves who had not studied the plan were quite divided on the matter.

The action taken by the farm leaders was merely supplementary to what the organizations themselves had taken in state convention. At the annual meeting of both the Farmers' Club and the State Grange, resolutions were adopted favoring continued government operation for a period of two years, and the executive committee of the Gleaners had similarly spoken for its membership.

Grant Slocum, president of the National Gleaner Federation, was chairman of the convention. Jennie Buell, secretary of the Michigan State Grange was present, and was one of a committee of five to draft the resolution that was wired to the Michigan delegation. The Farmers' Clubs were not officially represented, but Mr. A. B. Cook, chairman of the legislative committee of the association, had previously advised that he was in hearty accord with the purposes of the gathering, but because of another engagement would be unable to be present. Over fifty officers of local, state and international labor organizations, representing almost every branch of railroad labor were in attendance and took an enthusiastic part in the program.

One of the principal figures at the convention was Benjamin C. Marsh, secretary of the Farmers' National Council of which organization, Sen.

## All American Farmer-Labor Co-Operative Commission

An all American Farmer-Labor Co-operative Commission has been organized as a result of the Farmer-Labor Co-operative Conference held in Chicago, November 21 and 22nd, last, of which Sen. Herbert F. Baker was chairman.

The objects of the commission are to co-ordinate and encourage co-operative effort between and among organized producers' and consumers and to unify action in eliminating speculation and profiteering in the necessities of life; to develop intelligence, mutual understanding and good will.

The Vice Presidents of the Commission are: L. E. Sheppard, president of the Order of Railway Conductors, Herbert F. Baker, president of the Farmers' National Council, J. W. Kline, General President of the International Brotherhood of Blacksmiths and Helpers of America, E. O. F. Ames, President of the Pacific Co-operative League, J. M. Anderson, President of the Equity Co-operative Exchange.

The activities of the All-American Farmer-Labor Co-operative Commission are being centered upon organizing the All-American Co-operative Congress to be held in Chicago, February 12 to 15th. The sponsors of the movement feel it is most appropriate to start this Congress on Lincoln's birthday, for the object of the co-operative movement here is to Americanize American industry and make it truly efficient for the service of the American people.

Requests for information should be sent to Mr. Oscar H. McGill, General Secretary, No. 35 Bliss Building, Washington, D. C., or to C. F. Lowrie, Chairman Committee on Arrangements, 342 River Street, Chicago, Illinois.

Herbert F. Baker is president. Mr. Baker was unable to be present owing to the serious accident which befell him a couple of weeks ago when an acetylene tank exploded, burning him severely and nearly depriving him of his eyesight. He sent a telegram, however, announcing that he was in sympathy with the move.

Railroad labor organization heads told many instances of the deliberations on the part of railway executives to discredit government operation. One of the labor heads said emphatically that the government made a mistake by keeping in executive positions men who were opposed to government operation. "They should have been fired on the spot," he said.

At the evening session Mr. Oscar H. McGill of Seattle, secretary of the All-American Farmer-Labor Co-operative Corporation, gave an address on what had been accomplished in the state of Washington by way of co-operative marketing, from producer to consumer. He stated that they had found, that while not all of labor's and farmer's interests were mutual, many of them are, and that out in Washington, they had co-operated on such projects as were mutual and left others strictly alone. No definite action was taken to bring about a co-operative exchange of goods, but everyone present evinced a great interest in the proposal.

The following statement and resolution was adopted, signed by each

one present and sent to Washington.

"At a meeting held in the city of Detroit, January 9th, attended by representatives of the Michigan State Grange, the Michigan Federation of Gleaners, State Ass'n of Farmers' Clubs, and delegates of labor organizations, comprising in all fifty-six delegates, representing at least 70 per cent of the voters of Michigan, it was decided after careful consideration of the railroad situation and the rights of organized farmers and organized labor and the people of Michigan as a whole that government control and operation of the railroads be extended for a period of at least two years and that congress enact legislation making such extension mandatory. The State Grange, the Michigan Federation of Gleaners, State Ass'n of Farmers' Clubs, comprising in their membership over two-thirds of the farmers of Michigan, have recently adopted resolutions demanding such action. All the railroad organizations and state and local federation of labor have taken the same action. An overwhelming majority of the people of the state are in favor of a two-year extension. At this meeting the following resolution was adopted:

"That we instruct the Michigan delegation in the House of Representatives and the United States senators for our state to introduce immediately and to work unremittingly for the prompt enactment of legislation making mandatory a

two year extension of government operation of the railroad from March 1, 1920."

Signed,

David H. O'Connor, Business Representative, Local No. 514, Int'l. Brotherhood of Electrical Workers; Fred'k G. Palliter, Sec'y, Detroit Bldg. Trades Council Detroit; J. H. Staley, Gen'l sec'y-treas. Railroad Telegraphers, Welland, Ont.; D. N. Smith, Order of Railroad Telegraphers; Grant Slocum, Pres. National Gleaner Federation, Detroit; Jas. Slocum, Gleaner Fire Ins. Co., Detroit; J. Steele, 1st Vice Pres., Michigan Federation of Labor; Thos. J. McBarron, Gen'l Representative Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees Milwaukee, Wis.; Frank X. Martel, Business Representative Detroit Federation of Labor, Detroit; A. D. Manley, Gen'l Chairman Switchmen's Union, Michigan City, Ind.; H. P. Mangold, International Ass'n of Machinists, Detroit; K. B. Nolan, Agt. Sailors' Union of the Great Lakes, Detroit; R. M. Burr, General Chairman Order Railroad Telegraphers, P. M. System Central Lake; H. F. Baldwin, Vice Grand Pres., Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees, Benton Harbor; C. L. Brisley, Representative Grand Trunk Railway Clerks and Freight Handlers, Detroit; L. S. Edwards, United Brotherhood of Maintenance-of-Way Employees and Ry. Shop Laborers; Raymond P. Emerick, Pres. Detroit Bldg. Trades Council, Detroit; A. O. Anderson, Gen'l Vice Pres., International Brotherhood of Blacksmiths, Drop Forgers and Helpers, St. Paul, Minn.; Robert Byron, Representing International Ass'n of Sheet Metal Workers, Chicago, Ill.; Wm. Bailey, Pres. Detroit Federation Labor; Miss Jennie Buell, Sec'y State Grange, Ann Arbor; Eugene J. Brock, International Representative, Int'l Ass'n of Machinists, Detroit; Fred M. Griffith, International Ass'n of Machinists, Detroit; R. L. Holloway, Assist. Supt. Sec'y the Gleaners, Detroit; F. K. Harris, Sec'y Local No. 58 International Brotherhood of Electrical Workers, Detroit; F. F. Ingram, member Michigan State Grange, Detroit; Jos. Lyons, Intern'l Representative of Electrical Workers, Springfield, Ill.; Peter A. Miller, General Council United Brotherhood of Maintenance-of-Way Employees & Ry. Shop Laborers, Detroit; S. C. Flood, Representative Telegraphers of Northern Michigan, Bay City; Wm. Frost International Brotherhood of Electrical Workers, Detroit; Oscar H. McGill, Sec'y all American Co-operative Comm'n-Washington, D. C.; C. L. Gambill, Representing Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees, New Richmond, Mich.; H. A. Watson, Business Representative Local Union No. 58, Int'l Brotherhood of Electrical Workers, Detroit; Richard Young, Sec'y Blacksmiths' Locals, Detroit; Nick Hanbrick, Brotherhood of Boiler Makers and Iron Shipbuilders and Helpers of America, Local No. 166, Wyandotte, Mich.; J. M. Wilson, Representative Boiler Makers & Iron Shipbuilders; Thos. P. Smith, Boiler-makers' Int'l Union, Chicago; Forrest Lord, Editor Michigan Business Farming; O. C. Trask, Assist. Grand Pres. and Manager of Industrial Department, United Brotherhood of Maintenance-of-Way Employees & Ry. Shop Laborers, Detroit; John J. Scannell, Sec'y-treas., Michigan Federation of Labor, Detroit; Sam'l P. Tobin, Business Mgr., Detroit Labor News Sec'y Local No. 25 Bridge Structural Iron Workers, Detroit; Mr. Theo Veth, Rep. of Switchmen Union of North America, Detroit Lodge No. 113, Detroit.

## Supreme Court Upholds Decision in Ayer-Postal Usury Case

Sears Farmer Saved Nearly \$900 by Resorting to Court against Usurious Interest

THE SUPREME court has upheld the decision of Judge Hal Cutler of the 19th judicial circuit, who held that the payments of all money made by Mr. Fred Ayer, of Sears, Mich., to the Postal Bank at Ewart as interest on a mortgage loan, were void because the interest charged was usurious.

The Ayer case was one of the comparatively few protests against the very common practice of usury indulged in by many banks in the sparsely settled sections of the state. The details of this transaction were published in the June 28th issue of M. B. F. A brief summary of the cases follow:

Fred Ayer, a farmer living near Sears, in Osceola county, secured a loan of \$1,231 from Jas. Postal of the Ewart Savings bank, giving as security a warranty deed to farm property, valued at \$4,000 and upward. As interest on this Postal exacted a bonus of 10 per cent plus the highest legal rate of interest, 7 per cent. Ayer was hard pressed for money. His wife was ill, and doctor and hospital expense had eaten up all his savings. There was nothing for him to do except to accept Postal's terms. Mrs. Ayer died, and there was more expense. The usurious interest charges became burdensome,

and Ayer was obliged on several occasions to give notes for the interest. Finally in desperation, he asked Postal regarding the bonus and demanded that it be returned to him. There was considerable argument over the matter, and finally Mrs. Postal, whom it was claimed, had actually loaned the money, deeded the farm to an attorney who started foreclosure proceedings. At this point Mr. Ayer came to Mt. Clemens and sought the aid of Michigan Business Farming in an effort to save something from the sale of his farm. The case was turned over to our legal editor, Hon. Wm. E. Brown, who defended Ayer in court and secured a verdict which relieved



Fred Ayer, Sears farmer, and the wife whose illness and death put Ayer into the hands of the usurers.

Ayer from ALL interest charges and applied what he had paid as interest upon the principal of the loan, reducing amount claimed by the bank from \$1,600 to \$992.22.

The Postals appealed to the Supreme Court which as before noted upheld the decision. The court's findings as rendered by Chief Justice Brooke, are as follows:

The Supreme Court, State of Michigan, William F. Umphrey, Plaintiff and Appellant vs. Fred Ayer, Defendant and Appellee.

Before Full Bench: Plaintiff as assignee of Margaret I. Postal brought suit to foreclose a real estate mortgage held as collateral to a promissory note. At the time the loan was

made the defendant executed two promissory notes to plaintiff's assignor, one for \$1,300 and the other for \$59.42. It is claimed by defendant and admitted by plaintiff that included in these two notes is a ten percent bonus or commission to Jas. R. Postal, husband of plaintiff's assignor, through whom the loan was negotiated. Defendant in his answer set up facts which he claimed constituted usury. The case was heard in open court, all the parties in interest being examined orally and a decree was entered providing for the foreclosure of said mortgage, but holding that the transaction was a usurious one and limiting the amount of the decree to the principal sum unpaid. From this decree the plaintiff appeals.

Justice Brooke, (after stating the facts).

"There would appear to be no dispute between the parties upon the facts in this case except that the plaintiff claims that the ten per cent was exacted by Jas. R. Postal as a commission to himself for negotiating the loan from his wife to defendant, while the defendant claims that the ten per cent was exacted by Postal as a bonus to his wife for making the loan. This conflict in the claims

(Continued on page 26)



# CURRENT AGRICULTURAL NEWS OF THE WORLD

GRINNELL

## GERMANY'S GREAT FOOD NECESSITIES ARE EXPLAINED

The immediate needs of Germany, according to a government report, are: (1) Food for her workers; (2) Concentrated feeding stuffs and manures for her agriculture; (3) Raw materials for her manufacturers.

In order to stay the constant deterioration in the productivity of the soil, it would be necessary to import raw phosphates and concentrated feeding stuffs. In the reconstituting of the agricultural conditions, one of the most pressing needs, if the younger generation is to be saved for future work and production, is to increase the present inadequate supply of milk in the great towns and industrial regions whose need of a daily supply of 3,000,000 to 3,500,000 liters (792,500 to 924,600 gallons) of milk represents the minimum requirements for the children and invalids in these areas. This is equivalent to about 500,000 tons of concentrated feeding stuffs per annum.

If the wheat necessary for human consumption is introduced unground and the milling rate is diminished to 80 per cent, a considerable amount of offal will be available for this purpose. Assuming the importation of 1,000,000 tons of wheat, there will be 200,000 tons of offals.

## Growers of Canning Crops Organize

Believing that there is no sufficient reason why growers should be paid a variety of prices for canning crops, according to the section, and that in general prices paid growers for canning crops are too low, a representative meeting of canning crop growers was held at Rochester, N. Y. The meeting gathered at the call of the Monroe County Farm Bureau, New York State College of Agriculture, Cornell University and the state department of Farms and Markets.

The skeleton of an organization was formed. Papers of incorporation will be filed and the organization perfected without delay.

It was argued at the meeting that the time for the individual to bargain successfully with the canning industry for the purchase of his peas, corn, tomatoes, beans and other canning crops has passed, that only through collective bargaining can the grower hope to get fair returns for his efforts and capital invested.

## Development Bureau Wants Corn

"This has been one of the best corn growing years in the history of Michigan," says Sec'y Marston of the Northeastern Michigan Development Bureau, "and because corn is fast becoming one of the standard crops of the district I would like to have a really first class display of the product for the windows of the bureau office, where it would be seen every day by hundreds of people, a large part of whom are strangers to Bay City and this section of the state. I would appreciate it very much if the farmers of the bureau territory who have choice grown corn this year, would pick out three or four ears and ship them to me at Bay City so that I can display them at the bu-

reau office together with the name and address of the grower."

## M. A. C. Plan Tractor School

Truck and tractor schools which will be conducted by the Farm Mechanics Department of the Michigan Agricultural college during February and March are expected to draw an even larger enrollment of farmer-students than in previous years, according to officials in charge of the course. The constantly increasing use of gasoline power in farm work and the need for adequately trained men to handle the machinery have made the motor schools among the most popular of the winter courses offered at the college.

More than a dozen makes of tractors will be used during the school, each student being required to become familiar with the different machines.

Ignition, valve and spark timing, carburetor adjustments, brake and fuel consumption tests, lighting and engine trouble work will be among the things emphasized in the course. Actual adjustments and repairs on trucks and tractors in the laboratories at the college will play a prominent part in the work.

Each school will run for four weeks, the first opening on February 2, and the second on March 1.

## Sporting Events at Fairs

G. W. Dickinson, secretary-manager of the Michigan State Fair, and president of the International Association of Fairs and Expositions, the national body which includes in its membership the executives of all the leading fairs in America, declares that sporting events will play a greater part in future fairs than they have in the past.

At a recent meeting of the national body in Chicago, at which time the Detroit fair leader was chosen president, fair secretaries from all over the country asserted that the interest in sports aroused among the soldiers during the war makes it imperative that sporting events be given greater consideration in their coming expositions.

"While the fairs were originally for agricultural encouragement, the exposition of today has outgrown that idea," Dickinson explained. "Our fairs have become gigantic institutions, not only dealing with agricultural pursuits, but the industrial, commercial and entertainment phases of human activity. While sports have been well represented in fair programs, in the future they will cover a wider scope."

## Sugar Company Builds Beet Dump

The Columbia Sugar Co., will build a \$40,000 wagon beet dump at its plant at Mount Pleasant, according to an announcement recently made by the company.

Much complaint has been made by the farmers because of the tedious work in unloading beets by hand, and at the mass meeting of the growers at Saginaw a month ago, the subject came up. It was the general opinion that the sugar manufacturers should provide unloading

devices. Out in the western sugar beet territory, the farmers don't pass resolutions telling what they think the sugar companies "should" or "should not" do. They write it into the contract that if the sugar companies want the farmers to unload the beets they must pay for the job. The following clause is in the contract that has been drawn up by the Inter-mountain Farmers' Ass'n to be presented to the sugar manufacturers:

"The grower will deliver his beets at the nearest receiving station of the company and the company agrees to furnish adequate facilities for handling of beets at said station and in case the grower is required to shovel his beets after he is equipped to have them dumped the company shall pay 25 cents per ton for such shoveling and the company shall pay at the prevailing rate of wages per hour per team for all delay in unloading at the receiving station, except that delays of 30 minutes or less shall be allowed under this agreement."

## EMMET COW TESTING WORK

The Emmet County Co-operative Cow Testing Association, No. 1, finished its first month's work December 31. The tester visited 26 herds with 210 cows on test. Considering the newness of the work the first month's results were good. Thirteen cows produced thirty pounds or more of butterfat for the month. Of this number three produced over forty pounds of fat. Five herds had an average of over 600 pounds of milk or 25 pounds of butterfat.

Three herds were not put on test but will be entered in the January testing period. Interest is being awakened for another cow testing association and it is hoped that in the spring, association number 2 can be started.—Paul Hayward, tester.

## State Crop Value \$342,602,000

The value of the leading crops in Michigan during the past year was \$342,602,000, the greatest on record according to the report of the Bureau of Crop Estimates. This larger total was chiefly due to the higher price level and not to greater acreages of yields.

The report includes grain crops, hay and potatoes, sugar beets, cloverseed, apples, pears and peaches, but not such crops as small fruits, truck crops, chicory, mint, etc. The total acreage of crops included, exclusive of fruits is 8,856,000. This is an excellent showing, the report says, in view of the movement from the farm to the city and the difficulty of securing labor. A severe drought and grasshoppers also served to reduce the yields in some sections. The season generally was good.

The acreage and yield of some of the larger crops were: winter wheat, 844,883 acres, 17,153,613 bushels; spring wheat, 76,653 acres, 860,225 bushels; rye, 841,084 acres, 11,258,657 bushels; oats, 1,182,707 acres, 28,247,541 bushels, barley, 215,358 acres, 3,646,485 bushels and beans 220,265 acres and 3,031,000 bushels.

## FEARS MEXICAN HEMP CONTROL

Conditions in the hemp producing section of Yucatan, Mexico, resulting from the action of the Mexican government officials, are alarming, Michael J. Smith of New York, a hemp merchant, testified at a hearing investigating Mexican affairs.

"Unless something is done to relieve the situation," said Mr. Smith, "it is practically certain that within a few years the farmers of the United States will be without binder twine for their crops."

Smith said the planters had been robbed by the Mexican authorities and were on the verge of bankruptcy. Because of the monopolistic practices exercised by Mexican authorities for the purpose of controlling hemp production and prices American farmers, Smith testified, paid an excess of \$12,500,000 from 1916 to 1919.

Under regulations brought about by Salvador Alvaredo, former governor of Yucatan, he said, hemp prices advanced from 7 3-8 cents a pound in 1917 to 16 3-8 cents that year and to 19 1-4 cents in 1918. This year the price fell to 15 1-4 cents because of accumulated stocks.

## GOVERNMENT BULLETINS FREE

A copy of any of the publications listed herein, except otherwise noted, may be obtained free upon application to the Chief of the Division of Publications, United States Department of Agriculture, Washington, D. C., as long as the department's supply lasts.

Judging Beef Cattle, by E. H. Thompson, Animal Husbandry Division. Contribution from the Bureau of Animal Husbandry. Farmers' Bulletin 1068.

Poultry Houses. Contribution from the Bureau of Animal Industry 1919. Department circular 19. For members of boys' and girls' poultry clubs.

Sweet Potato Diseases, by L. L. Harter, Pathologist, Cotton and Truck Diseases. Contribution from the Bureau of Plant Industry. Farmers' Bulletin 1059.

Buckwheat, by Clyde E. Leighty, Agronomist in Charge of Eastern Wheat Investigations. Contribution from the Bureau of Plant Industry. (Farmers' Bulletin 1062.) Gives method of planting, fertilizing and harvesting buckwheat.

The Flat-Headed Apple Tree Borer, by Fred E. Brooks, Entomologist, Deciduous Fruit Insect Investigation. Contribution from the Bureau of Animal Industry. Farmers' Bulletin 1065. Describes life history and habits of this pest and suggests methods for its control.

Tuberculosis in Live Stock; Detection, Control and Eradication, by John A. Kiernan, Chief of Tuberculosis Eradication Division and Alexander E. Wight, Assistant Chief. Contribution from the Bureau of Animal Industry. Farmers' Bulletin 1069.

The Bean Ladybird and its Control, by F. H. Chitenden, Entomologist in charge, Truck Crop Insect Investigations. Contribution from the Bureau of Entomology. Farmers' Bulletin 1074.

## SUPPOSE THE FARMER SHOULD STRIKE?

By REV. C. W. STEPHENSON

His song may be heard in the crisp morning air,  
He catches the day god's first gleam.

Before the old clock on the mantle strikes five,  
His horses and cows are all fed;  
He knows he must till the broad acres  
or die  
For work means the bringing of bread.

He thinks of the millions needing his aid;  
The corn and the wheat must be grown,  
He coaxes the cane and sugar beet forth;  
No harvest if seed isn't sown.

He knows how to care for cattle and sheep,  
He sprays the fine orchard with care,

He fills his great cribs and cellars for us,  
Asks only that we treat him fair.

Through summer's fierce heat and winter's chill blast;  
Through the mud, the snow and the rain;  
Through autumn and spring—no vacation for him—  
He thinks not alone of his gain.

Suppose he'd sit back and shirk his great task,  
A cowardly slacker he'd be!  
Suppose he should strike for a six-hour day,  
Who, then, would feed you and me?

Suppose he'd lay by the plow and the hoe,  
Let mower and reaper decay?  
Suppose he'd lie idle week after week,  
While he shouted: "Less work and more pay!"

Suppose he should say: "It is nothing to me  
How many are hungry and cold;  
I won't do a thing to help anyone else;  
My god is the glittering gold!"

With nothing to eat and little to wear,  
We'd curse the good farmer right well;  
We'd say: "He's a hog in his selfishness great!"  
And we'd wish to see him in hell!

But the farmer plods on from morning till night;  
He's a friend to and masters the sod;  
He produces the things we all need so much;  
His heart he keeps right before God!

The following poem was sent to us by Mrs. C. E. Lonsberry, a Dimondale subscriber, who tells us that the author, C. W. Stephenson, is a minister of the gospel seventy-four years old, of the Methodist Protestant denomination, and is a resident of Lansing. The poem was published in a recent issue of the Lansing State Journal. Mrs. Lonsberry thinks it is too good not to be published in a farm paper. We agree with her, so here it is:

The farmer, with patience and hearty will,  
Works through the long, dragging hours;  
He does not demand a shorter work day,  
Nor fail to exert all his powers.

Before the bright sun in the east is aglow,  
While city folks cuddle and dream,





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There's a Satisfied User near you



# The Spellbinder

By Octave Thanet

Author of "The Man of the Hour," "The Lion's Share", etc.

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THE FROZEN soil rattled under the horses' hoofs; the wagon wheels rattled on their own account. A December wind was keen enough to make the driver wrap his patched quilt closer and pull his battered straw hat lower over his ears. He was a man of thirty, with high, tanned features and eyes that would have been handsome but for their sullen frown.

"I should call it getting good and ready for a blizzard," observed the other man on the board (seat the wagon had none); "maybe he won't come."

"He'll come fast enough," returned the driver; "you don't catch buzzards staying in for weather!"

"I don't know. He's a pretty luxurious young scoundrel. Bixby says he had a letter from him—very particular about a fire in his room and plenty of hot water and towels. Bixby is worried lest the boys make a fuss with him in his hotel."

"Bixby is a coward from Way-back," was the driver's single comment or reply. The other man eyed the dark profile at his shoulder, out of the tail of his eye, rubbing his hands up and down his wrists under his frayed sleeves. He was a young man, shorter of stature than the driver. He had a round, genial, tanned face and a bad cold on him. His hands were bare because he had lent his mittens to the driver; but he wore a warm, if shabby greatcoat and a worn fur cap.

"I don't suppose," he said in a careless tone, "you fellows mean to do more than scare the lad well."

"We scared the last man. Doc Russell got him fairly paralyzed; told him 'bout the Shylock that turned out the Kinneys, and Miss Kinney's dying in the wagon, she was so weak; and Kin—somebody ('course he didn't mention names) shooting that man; and their arresting Kinney, and the jury acquitting him without leaving the box. Oh, he told a lot of stories. Some of 'em I guess he made up out of his own head; but that Iowa lawyer swallowed the whole batch, hide and hoofs and all. And he couldn't git out of town quick enough! But what's the good? Here's this young dude come again. Say, do you know it's his pa that owns most of the stock in the trust?"

"No?"

"Yes, sir. He's got the upper hand of 'em all. They've bought up every last bit of foreclosed land 'round here. Yes, we was so mighty smart, we fixed it that nobody'd dare to buy; and nobody around here would dare, even s'posing they got the money, which they ain't—"

"There certainly ain't much loose money around here. Wesley. At least, when I ran the paper I didn't find it; I was glad to rent an abandoned farm and trade my subscription list for enough corn to pay the first installment on some stock and a cultivator."

"Did you pay any more?"

"No; times got worse instead of better. I'd have lost the stock and the cultivator and every blamed thing in the way of implements I've got if it hadn't been for you fellows running the implement man out of the country; he'd a chattel mortgage that was a terror. But what were you saying about the land? Nobody would buy?"

"Of course nobody would buy, and we hugged ourselves we was so durned slick. Oh, my! Now, here comes along one of them bloody trusts that's eating this country up, and goes to the land company and buys the foreclosed land for a song. It goes all the cheaper because its known far and wide that we elected the sheriff not to enforce writs, but to resist 'em; and the same with all the officers; and we're ready to shoot down any man that tries to push us off the earth. That scared folks,

and the investment company sold cheap as dirt. They knew they couldn't git anybody to take up a farm 'round here. Look a' there!" He jerked the point of the switch that served for a whip in the direction of a dark bulk looming against the glowing belt of red in the west. The outlines of a ruined chimney toppled over the misshapen roof. The door and window openings gaped forlornly; doors and windows were gone long since, wrenched off for other needs.

"That farm belonged to as hard-working, smart a feller as ever handled a plow. Look at them fields, gone to desolation like everything else, but the furrows use to be as straight as a line with a ruler. He fought the hard times and the drought till his wife died, and then he said to me, 'I'm beat; I'm going to take the baby back to Winnie's folks. If I'd only gone last year I could have took Winnie, too. The company kin have my farm, and I hope to God it'll be the curse to them it's been to me!' There the farm is. And look further down"—shifting the switch to another direction—"there's another dropping to pieces. Lord, when I think of the stories they told me about the crops when I first came and put in four hundred dollars that I'd worked hard for in a sawmill, and I think how we used

you, Mr. Robbins, there ain't five men in this community that that trust ain't got the legal right to turn out on the prairies tomorrow. They've all been foreclosed, and the year of grace is up. Most of us here ain't got no show at all—legally."

"But who'll they get to buy, Wesley Orr?"

"They're not needing much buying. They're on to a new scheme—going to turn all these farms into big pastures and fatten cattle with alfalfa, raise it and ship it; then the lower part of the county, down below town, they intend to run a ditch through from the river and irrigate it. They will fetch in a colony who will pay them about ten times what they paid, I expect, and—"

"But we won't let them—"

"Depends on how many guns the colony's got and how much fight there's in it. They'll try it anyhow, unless—"

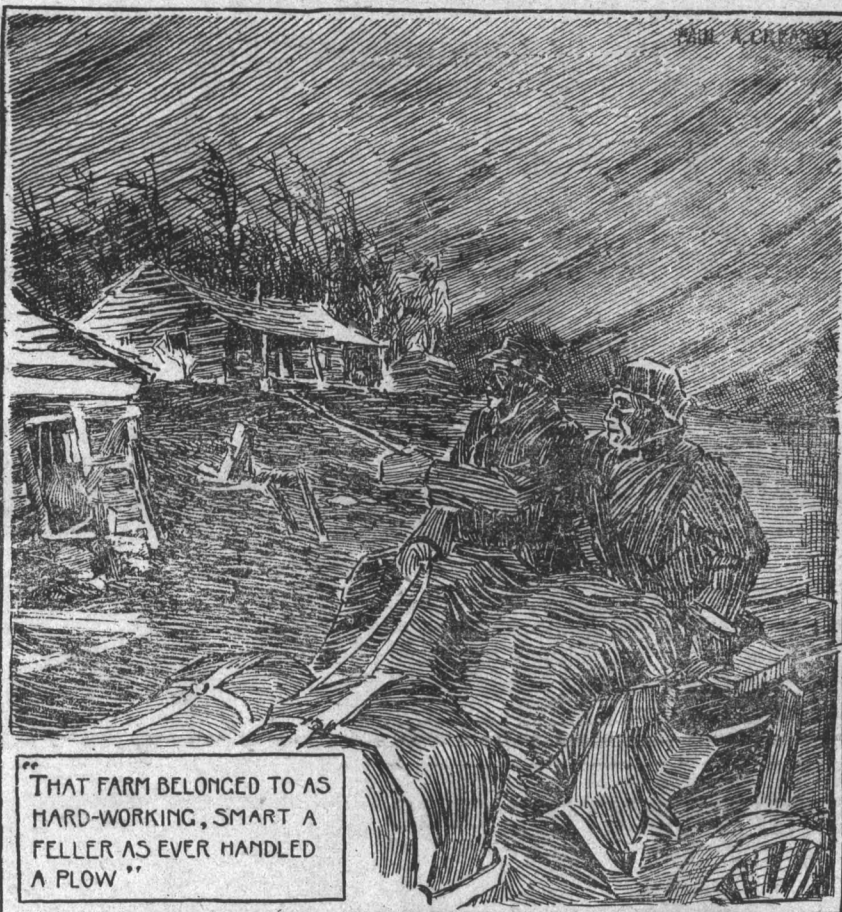
"Unless—" repeated Robbins uneasily.

"Unless they're scared off, unless they think it's death for a man to tackle us."

"I kinder wish," said Robbins, "that he came from another town."

"What's the difference about the town?"

"Oh, none I guess. But that town, it's in Iowa, and it sent the best things we've ever had. One woman put in a lot of jams and jellies and tea—such tea! My wife was sick then, and I didn't know but I'd lose her. I gave her some of that tea and some jam, and she began to pick up from that day. It was a quince jam, and made her think of home, she said. Her father was a Connecticut man, and they had an orchard with quince trees in it—I remember—" He did not finish the sentence, but he sighed as he absently ran his eye over the gaps in



"THAT FARM BELONGED TO AS HARD-WORKING, SMART A FELLER AS EVER HANDLED A PLOW"

to set around the fire evenings, my wife and I, talking about how the town was a growing and what it would be when the trees was grown and our children was going to school, and how we'd have a cabinet organ and we'd have a top buggy, and we'd send for her mother, who didn't jest like it with Bill's wife—we was jest like children, making believe! But that ain't what I was driving at. Here it is. We calculated that we'd be alone, because the poor, miserable remnants of stock and machines and farms we got simply wasn't worth outside folks taking, and inside folks wouldn't risk their lives by dispossessing us. That's how we sized it up, ain't it?"

"I don't see yet what you're after, Wesley."

"You will. We reasoned that way. But along comes this company, this—trust, that's clean against the law and don't give a curse for that, and it buys up the whole outfit. I tell

the harness mended with rope.

"I bet he didn't have nothing to do with that box," said Orr; "most like, the people sent us that were poor folks themselves and had to pinch to make up for the things they sent us. 'Taint the rich people are sorriest for poor folks. This young Wallace—his father's the owner of a big paper, and rich besides, and he's got this boy in training for editor; and when that first duck could do nothing out here, the old man said he'd buy in, and the young one thought it a mighty smart thing to do to come over here and turn a lot of half-starved women and children out in winter. What's he care? What do any of these rich folks care?"

"I don't think you're fair, Wesley," said Robbins. "All rich folks aren't mean. I know more about them than you." He spoke with a dawning of pride in his tone, which deepened a little.

"Yes, I know you used to belong to them," said Orr, "and I guess you were decent to the poor. But you'll admit you didn't have no notion how it cuts to work every muscle in you and to lay awake thinking yourself half crazy to puzzle out better ways to make money and yet to feel every year you're a sinking deeper in the slough! I've worked five years here, and 'cepting the first year, every single year has piled interest on the mortgage. Every year we've had less clothes to wear and poorer stuff to eat, and it's been mend instead of buy, and we've had more debts and more worries every year. I tell you, Mr. Robbins, I thought it would kill me, once, to come on the county. I'd a said I'd starve first; but you can't see your wife and the children starve. I went in last winter and asked for relief. I'd that old hound dog of mine with me; you knowed him. He'd been a good dog. He came with us when we come here, running under the wagon. All the children had played with him. I took him into town, and I asked every one I knowed would he have that dog for a gift; I showed off all his tricks, feeling like I was dirty mean deceiving him, for I done it so somebody would be willing to take him home and feed him and take care of him, for it's God's truth I hadn't enough for him and the children too. But nobody wanted him; he was pretty old, and he wasn't never handsome. And one store I was in, as I went out I heard a drummer that was trying to sell goods say, 'I saw that feller at the Relief, but I notice he's able to keep a dog. Lets the children go hungry rather'n the dog, I guess.' I kinder turned on him, then I turned back again, and I whistled to Sport, and I looked at him and saw how his ribs showed and his eyes was kinder sunk. He wagged his tail and yelped like he used to, seeing me look at him; and then I went straight to that drug store Billy used to keep—Billy Harvey. He moved away last year; he was a good friend of mine. I said to him, 'Billy, you got something that would kill a dog in a flash, so he'd never suffer or know what hurt him?' And Billy—he understood and he said he had. 'You jest put it on his tongue and he'd never know what killed him.' Billy was sorry for me. He gave it to me for nothing, and he gave me some bones and corn bread and milk; so Sport had a good dinner. And he come right up to me and looked me in the eyes, wagging his tail. His eyes was kinder dim, but they was just as loving as ever. And he was wagging his tail when he dropped. Then I went home and the children asked me where was Sport, and little Peggy cried—oh, Lord!"

"It was awful hard on you, Wesley," said Robbins gently.

"I suppose it wasn't nothing to what some men have suffered. There was poor Tommy Walker, give up his farm when it was foreclosed—thought he had to—and went off tramping to Kansas City, and after he'd tramped a week there, looking for a job, gave it up and jumped into the river. And you know how old man Osgood killed himself, honest an old man as ever lived; always kept his machines under cover, too; he couldn't stand it. They found it harder—and lots more, too; but I've found it hard enough. And I know I'd shoot that sneaking, sneering young Shylock, and not mind it near so much as I minded killing poor Sport."

"I don't know but we'd all better quit," said the younger man with a sigh. "This isn't a living country. Three years of drought would break any country up. It's not meant to live in. We had a fair crop this year, but it's so low; and freights though they're lower, are pretty high. I don't see any way out of it, And I declare I think if we run this young fellow off we'll only get a bad name for the place."

"I don't care for bad names," said the other sullenly. "I got a wife and three children; I was foreclosed a year ago—so's you, so's a lot of the boys; we're at the end of our string now—legally. So what did we say? We said we didn't care was it legal or illegal; that laws was made to skin the poor man; and we elected a sheriff we could depend on not to enforce the laws; and we druv off the blood suckers they sent out



here. They say one feller was killed. I don't know. Guess that's one of Doc Russell's stories. The boys talk a lot about the cause of all this here trouble, and how we're going to have a revolution, and how referendum and initiative will help and how free silver will help—I guess myself, a little more rain three years ago when corn was up would have helped more'n anything—and they talk how they're fighting the battles of the poor man, and the eastern bloodsuckers has ruined us, and the Shyllocks are devouring us, and they holler the roof off. I listen to 'em, but I don't believe 'em any more than you do."

"But," interrupted the other man eagerly, "I voted with the people's party—"

"Of course you did. We was going to be unanimous, and you dass not stand out; but you didn't believe in it. Me either. I ain't makin' any pretense, but I'll tell you it's jest here—I'm down to bed-rock. If I let my farm be took away and my stock what's going to become of my wife and children? You can call it stealing, or resisting the law, or anything you please, but I'll kill that feller before I'll let him turn me out."

"Don't you think we can scare him off? Killing's a nasty word."

"My father was with John Brown and he helped kill a man. He never lost no sleep about it; I shan't neither. Look here, Mr. Robbins, I got lots of time to think, winters—lots. Remorse and all them fine feelings you read of, they don't belong to folks that are way down in the dirt. You got to have something to eat and wear, and not have your stomach sassing you, and you half froze most of the time; when your body is in sech a fix it's keeping your mind so full there ain't any show for any other feelings. And look a' here, there's worse"—his voice sank. "Why, you git to that pass you ain't able to feed your own wife and babies. When this morning Peggy kept hushing the baby, and she was fretting and moaning, and Peggy says to me, couldn't I git a little crackers in town; maybe the baby could eat them? I didn't feel nothing 'cept a numb aching. I kept saying, 'I'd 'a felt that, once!' But I didn't feel it now. And all of a sudden, it come to me 'twas because I was gitting past feeling—like you do when you're froze. Jest before you die. I read a story once, when I was a little shaver, that kept me awake nights many a time."

"Look here, Wesley," his companion interrupted, "quit it! You're getting light-headed. Get rid of such fool thoughts as those or you'll be going off to the insane asylum; and mighty little use your family will have of you there!"

Orr gave him no answer. Robbins watched his impassive face and frowned.

Silently the two men looked at the nearing lights, while the wagon creaked and swayed and rattled over the road.

There were enough lights in the windows to reveal the wide untidiness of the street, the black, boarded windows of the empty shops, the gaps in the sidewalk, the haggard gardens, where savage winds had blown the heart out of deserted rose-trees and geraniums. In general the skyline was low and the roofs the simplest peaks; but it was broken in a few places by three and four-storied brick buildings of the florid pomp on which a raw western town loves to lavish its money. Now they loomed, dark and silent, landmarks of vanished ambition. The sole sparks of life in the place were at the hotel. It had been built "during the boom"—a large rectangle of wood, with a cheap and gaudy piazza, all painted four shades of green, which the climate had burned, blistered and bleached into one sickly, mottled brown. Long ago the stables of the hostelry had been abandoned, but this night the stable yard was full of wagons.

The upper story of the hotel was dark, and the greater part of the lower story; but the kitchen was bright, and yellow light leaked thru every chink and crack in the office blinds.

"Boys have turned out well, I guess," said Robbins.

"They better turn out!" said Orr.

The office was full of men, gather-

ed about the stove, talking to each other. The innkeeper sat behind his counter, affecting to busy himself with a blotted ledger. Originally he had been a stout man, but he had lost flesh of late years. He was wrinkled and flabby, and the furtive eyeshots that he cast toward the stove were anxious beyond his concealing. Anyone, however, could perceive that matters of heavy import were being discussed. The miserably clad men about the stove all looked sullen. There was none of the easy-going badinage so habitual with westerners.

"Where is he?" said Orr, in an undertone to a large man in a buffalo coat. The large man was the sheriff of the county. He jerked his thumb over his shoulder in the direction of the dining-room.

"What's he like?"

"Little fellow with a game leg."

Orr frowned. Robbins felt uncomfortable. A gaunt man on the outskirts of the circle added: "He's powerful slick, though; you can bet your life. That girl Susy is all won

over already; and she's suspecting something, sure's shooting. I guess she's warned him there's something in the air."

"Well, if there is, I don't know it," said the sheriff.

"You never will know anything about it, either," a gray haired man added.

"That's right, Kinney," two or three spoke at once. But immediately a silence fell on them. Robbins who felt himself an outsider, could see that the others drew closer together. Once or twice he caught sinister murmurs. He began to wish that he had not come.

"It would be no earthly use for me to chip in and try to soften them," he thought. "They're crazy with defeat and misery and the fool stuff campaign orators have crammed down their throats."

Just then the dining room door opened, and Robbins was the only one of the group to turn his head. The other men gazed at the fire, and the heavy silence grew heavier.

(Continued next week)

new at the job. I believe farmers should be at the first table, but go slow. Feel the way.—E. T., Berrien Springs.

We value your paper very much for the market reports, particularly on farm produce.—Glenn Ellis, Oakland County.

Enclosed please find one dollar to pay my subscription another year. That's the paper with backbone to it. I hope you success and good luck the coming year.—Elmer Straub, Mecosta County.

Have been a reader of your paper for three years now and we all enjoy it very much; it sure is a good farm paper.—Fred LaCass, Genesee County.

Me think M. B. F. is one of the finest farm papers published.—Wm. A. Cameron, Huron County.

I wish to say I find your paper very helpful in my business of farming.—Ray Down, Ionia County.

I claim the M. B. F. is the best farm paper for business, that a Michigan farmer can read.—L. B. Merrill, Roscommon County.

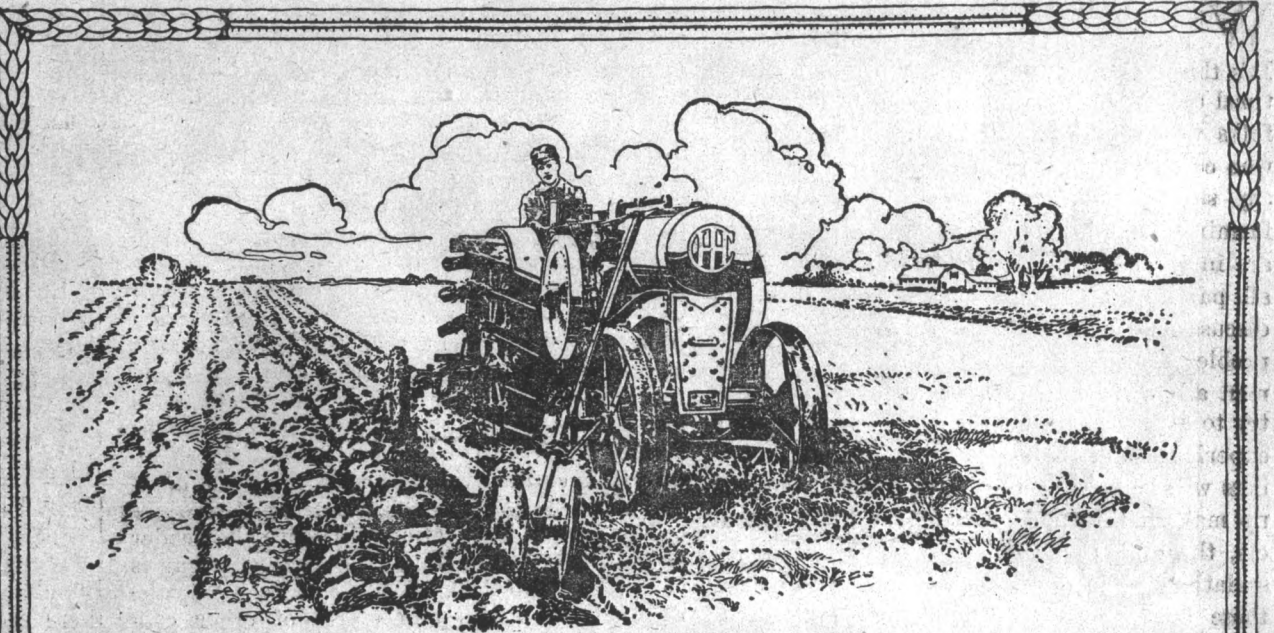
We think your paper the best of all farm papers we take.—Leslie Simpson, Eaton county.

## Thank'e, Kind Friends, for Words of Cheer

Keep the Good Work Going

"Keep the good work going on. The farmers are gaining. Oftimes feel like writing to you and saying 'thank you' when reading the M. B. F. In regards to the candidate for

governor will say farmers are all right but I think we need a governor that is used to the ways at Lansing as the lobbyists are too well versed in the ways. Last winter gave us a good idea what farmers will do when



## The Sensible Leader of the 1920 Tractor Field

**N**OWADAYS the chug-chug of the farm tractor is heard in every corner of the land. Tractors are at work in the fields of many thousands of farms and if you look them over you will find them a mixed lot.

Tractor farming is still in its youth. Novelty is still in the surge toward power farming.

The impractical theorists are still in the ring, limping but not out of the running. Adventurers who swarmed into what they termed the "game" are still "playing." The hazards facing the farmer in search of reliable power are many.

In all this turmoil, one tractor like a steady star has lighted the way. That tractor bears the trusted name—**Titan 10-20**. It has led because it is the product of practical builders of good farm machines; because it is backed by many years of experience and unquestioned reputation.

Today **Titan 10-20** is the standard-setter among all tractors. During the past year it has been the topic of conversation on the tongues of farmers and tractor makers the nation over.

Selling at the popular low price—**\$1000 cash f. o. b. factory—Titan 10-20** faced a sensational demand. A few months ago this desire for Titan ownership had flooded the factory with thousands of orders which could not be filled at once, though a new Titan was being turned out every few minutes.

Every effort is being directed to greater production and to continued Titan 10-20 pre-eminence during 1920. In view of manufacturing difficulties however, this is earnest advice to the intending purchaser:

**Orders for Titan 10-20—and also for International 15-30 and International 8-16—must be placed far in advance. No other course will assure delivery.**

INTERNATIONAL HARVESTER COMPANY

CHICAGO

OF AMERICA INC.

U S A



—for all the farmers of Michigan

# MICHIGAN BUSINESS FARMING

Only Independent Farm Weekly Owned and Edited in Michigan!

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Entered as second-class matter, at Mt. Clemens, Mich.

## "Pleased to Meet You"

WE'LL MEET you at East Lansing Farmers' Week. Of course, you'll be there. It's the big annual get-together at our agricultural college for all the folks who farm, all the folks who would like to farm, and some folks who couldn't run a farm if they had to. But for seventy years to the Michigan Business Farming, their hearts—at least, most of them—are in the right place. They will gather from all parts of Michigan, thousands of them, to discuss and perchance to solve some of the problems of agriculture. Fine speakers, big men all, will be there from all over the country to give the farmers the benefit of their wide experience and their viewpoint. Annual meetings will be held by the Farm Bureau, the syrup makers, the spud growers, the grain breeders, the milk producers, and other farmer associations. You don't have to belong to one of these associations to attend their gatherings. Watch these columns for the detailed program and you will find many things that will interest and help you. The dates are Feb. 2-9. Plan to be there. We'll be pleased to meet you."

## "Ouch, Get Off My Foot"

TAXES TO A farmer are like a bunion to a foot. They are both sore objects to tread upon. Unlike the bunion, however, taxes are necessary. Perhaps the Bolsheviks don't believe in taxes. But they do not need to. They confiscate enough wealth to pay the cost of government. We're not so civilized as that in this country. We have a foolish theory here that every man who owns property and enjoys the privileges and protection of government should pay a proportionate share of the cost of supporting the government. This theory doesn't always work out in practice, it is true. Some people always have paid more than their fair share of taxes. Some have paid less, but that's no reason why we should abolish taxes altogether and go a-bolsheviking.

The good citizen will not complain of taxes that go to pay the legitimate expenses of government and the public institutions. Neither will the good citizen complain when, during years of extraordinary state expenditures, the rate is a trifle higher than in previous years. But Mr. Good Citizen's patience ceases to become a virtue when his tax receipts shows an increase of eighteen hundred per cent in a quarter of a century, or twenty per cent in a single year. He howls, "get off my foot," and we heed his cries with compassion and understanding.

Of course, the cost of maintaining the government, the public institutions, the schools and highways increases year by year. But don't be fooled. That isn't the reason for high taxes. The reason for high taxes is that somebody, or a good many somebodies, are not paying their proportionate share. Taxes ought to be collected against income rather than upon the intangible value of property which yields the income. There are at least three almost neglected sources from which the state could and should realize a large income, thereby easing the burden now placed upon landowners. They are the income tax, the tonnage tax, and a much greater tax upon the water power companies who utilize the streams and millions of acres of land adjacent thereto.

There is work ahead for the next legislature.

## Interlocking Directorates

IT HAS been seriously argued that milk, being one of the necessities of life, should be put in the class of public utilities along with gas, electricity, railroads, water, etc., and the charge therefore be regulated by ordinance. While it is true that this would be pretty tough on the farmer who has been getting "rich" out of the dairy business, there is no need for discouragement. There's a neat little way to get around ordinances and all other rate-making legislation. The railroads have tried it, and it works fine.

When the state determines what profit the farmer shall have on his milk and fixes the price to the consumer, the farmer, if he is a good business man, will tap his "money bags" and buy an interest in the dairy food trust, or the milking machine trust, or the milk pail trust, and when his profits from his milk are not satisfactory, he will ask the directors of the various trusts in which he is interested to charge him more for dairy feed, milking machines, milk pails, etc. This extra charge he will bring to the attention of the price-making body as an argument that the price of milk ought to be raised. Of course, the law could not compel this poor farmer to operate at a loss, so up goes the price of milk, and when the first of the year rolls around, Mr. Farmer receives his extra dividend checks from the milk-pail trust.

This simple illustration will serve the reader in getting a better understanding of what is meant by "interlocking directorates" of the railroad companies and scores of other concerns which furnish them with supplies. J. P. Morgan may be a director in a half dozen railroad companies. At the same time he may be a director in a locomotive factory, a car-shop, a steel mill, a brake trust, or a half hundred other concerns which sell material to the transportation companies in which he owns a block of stock. The Interstate Commerce Commission has jurisdiction over the rates for which Mr. Morgan may charge the patrons of his railroad systems, but it has no regulating powers whatever over the many corporations which furnish the supplies. In other words, the profits in transportation are fixed by the government, but the profits of the other corporations may be as large as the traffic will bear. We are not, therefore, surprised at the charge that the directors of railway companies have for years purchased supplies from other companies in which they were interested charging themselves much higher prices than they would have to pay elsewhere, and passing the extra cost onto the patron, thereby affecting not at all the transportation profits, but increasing very largely the profits of the supply companies.

These "interlocking directorates," it is claimed, are found existing between nearly every railroad of importance and the corporations from which they buy their supplies. So the next time some special privilege zealot tells you, "the government hasn't any business running the railroads," ask him what he knows about "interlocking directorates."

The census-taker will get you, if you don't watch out!

## Boozers Beware.

BOOZERS, beware! A. C. Graham, anti-saloon league official and a dyed-in-the-wool prohibitionist, has been appointed federal prohibition director for Michigan. This appointment gives the people of Michigan positive assurance that the prohibition law will be enforced to the letter.

A few weeks ago when it became generally known that a director was to be appointed for Michigan, there was some fear that the Democratic appointee might be a man who would keep one eye closed and the other eye winking at violators of the law. All the influence Michigan drys could muster was directed in favor of Mr. Graham whose well-known attitude toward booze and the saloon left no doubt as to how the law would be administered in his hands.

The government is without doubt making a sincere effort to enforce the federal prohibition amendment, and its choice of enforcement agents is to be heartily commended. The extent to which prohibition will prohibit depends in a very large measure upon the character of those officials, and the one sure way to make the people disgusted with prohibition is to let the boot-leggers and other whisky purveyors ply their trade with only an occasional spectacular arrest and confiscation. With A. C. Graham to assist the splendid work that Fred Woodworth, dairy and food commissioner, and his corps of assistants have been doing to make the state bone dry, we predict that the illegal traffic in Michigan will soon shrink to harmless proportions and in a few years cease altogether.

## A Bad Bolshevist Bill

CERTAIN INTERESTS in the United States shrink in fear from the menace of Bolshevism which throws its black shadow to the uttermost ends of the earth. In this hysteria of fear, the Department of Justice has been importuned to gather in the disciples of Bolshevism and radical socialism, and the raids that have recently been conducted upon peaceful gatherings and the arrests that have been made without warrant or reason would be highly ridiculous were they not so serious in their consequences. If danger threatens the Republic from this source it must be because there are grounds for dissatisfaction, and if there are grounds for dissatisfaction, raids and summary arrests will never pacify. That no such danger impends, we firmly assert. That there are evils which give specious substantiation to the arguments of the radicals, we do not hesitate to acknowledge. But the repressive measures that are being used to curb public discussion strike deeper than now appears and arouses not only the ignorant and suspicious but the intelligent and trustful to a sense of oppression and a violation of sacred rights guaranteed under the Constitution.

A bill is now pending in Congress to perpetuate the war-time sedition act. It was drafted by the Department of Justice and has already passed the Senate. The purposes of the bill are all right, but it puts a dangerous weapon in the hands of officers of the law, who are given discretionary powers which may easily be abused. If the officers of the government can thus employ the law to ferret out and punish plotters against the government, they may not find it so very difficult to find a way to punish constructive critics and reformers whom they would like to think are plotting against the government. Frankly, we are afraid of this bill. We fear the time may come when the people will weep bitter tears of regret that they ever permitted it to become a law.

A western farm paper: "The average farmer will be so busy looking after his politics from now on that he won't have time to raise anything but h-l." "Profane, but prophetic," says Industry. At that he'll produce a better brand of citizenship and government than the good old U. S. has had in many a day.



# THE FARMER AND LABORING MAN

I read in your last issue what one labor paper thinks of the farmer. I feel free to say what I think of such sentiment thus express, for away back in times when I used to work with union labor when the men went on strike for a ten hour day in the mills of Michigan, I saw the power of organization to make working-men's "lives worth living."

I well remember the first ticket I ever voted the picture at the top of a skilled mechanic with a compass in one hand, stepping over a pile of cog wheels and machine parts to shake hands with a farmer between the "stills" of a plow.

Let the readers compare that old word picture with the raving of the so-called Union and I will not worry over the expected verdict should the time ever come when his chosen candidate and the great labor party candidates are up in opposition for honors. Union says government expends forty million a year through the Department of Agriculture to "isolate a bug." M. B. F. has done better. It has not cost so much to republish the item and has surely isolated a bug and one worth keeping in public view that it may do no more harm. Union labor and farmers under various party names have had many splendid men in congress, senate and in executive and legislative departments in every state since the time above referred to and will again in spite of Union. All American. Some farmers.

Can you imagine the need of a middleman standing between a Huron county farmer with a bag of beans at \$12 and a miner with a young growing family of Scranton, Penn., to keep them from abusing each other. Nonsense, nothing between them but a freight rate and want made known; and same applies to every food product as well as clothing, although beans are so near a perfect food for a working man if he can just get a little water and fuel. Nothing can be used in comparison to convince the reader of the vital point of view. The more we study the needs of our great consuming centers the more we are ashamed of our utter failure to keep a good supply of staple food and clothing product handy to sell at a profit, the moment our great cities of laborers near the coal, steel, cement, machine and shipping plants are in need. any time during the year and I further believe in the light of what has recently transpired it would be well to keep a large cache of coal handy near the homes of Michigan men.

A farmer is by nature a storekeeper in many ways. If he were not, farming would soon run down at the heel, but I think he should not have all his store at his farm. No real union labor man could find fault with this since it would cost him nothing and would also tend to make him feel safe; with this needs in plenty in sight.

I wish to make a few assertions:

The farmers of Michigan have capital enough to do this. The present laws are sufficient. Agriculture in Michigan must not go begging of other classes of capitalists! No need of it. Farmers as a rule do not look for large rates of interest, though they sometimes pay high rates. The farmers of Michigan would be satisfied with a lower rate than they pay if they were assured it was to maintain the storehouse of the nation. I believe the system could be financed by a trust and loan company with a central clearing house and branches in every county with 30,000 or more population. Such an organization would be a tremendous force politically as the state bank is now. We must appeal to all farmers. We must be prepared to withstand temporary disappointment in season.

I have long urged the farmers with whom I have come in contact in persuasive argument that it is folly to say I must have a farmer for governor or representative, when all we have to do is to refer to the record as to how our farmer governor and legislature and even our supervisors have voted. You will no doubt be surprised to learn that the Detroit delegation did more for the

farmer at last session than the farmer legislators also governor who is also a farmer. Take the Warner administration for instance. He canvassed the state as a farmer but he kept the old mortgage tax law on the statute books and a psychologist governor come in power by accident and brushed the nefarious law away. Dr. Ferris made one great mistake, however, when he signed the amended drain law and the present governor has won the lasting friendship of many a good farmer when he signed the present drain law, the best we have ever had and still in need of urgent repairs. Also the Covert road law needs some help as it is almost a good law. Yes, the drain laws and road laws will during the next decade be the cause of our largest item of taxation. We realize it and live in hope and in great fear. Osborn for governor for he is not afraid to leave the beaten path.—*Agricola Publicus, Port Hope.*

The recent announcement that organized farmers and organized railway men would attempt a co-operative plan for the exchange of commodities shows us that the day of the food middleman and speculator is passing away. We need laws to facilitate collective and co-operative bargaining, and ought to elect men to office who have the vision to see the wonderful opportunities that lie in this direction. The trouble with a good many of the "farmers" who were in the last legislature was that they were steeped and parboiled in politics long before they reached the legislature and couldn't resist playing the political game. Most men are only human in this respect. We need a few Simon-pure farmers in the legislature who have not been corrupted by partisan politics and politicians.—*Editor.*

## SUGAR BEET CONTENT

Your publication has brought to my attention certain statements concerning the manufacture of beet sugar which call for comment.

I quote the following from your issue of Dec. 13 in an article entitled, "Growers ask for a Better Sugar Beet Contract." Last year beets tested 16% sugar, hence that means that from every ton of sugar beets, the manufacturer extracted 320 pounds of sugar. At the prevailing price of 9 cents per pound, the manufacturer received \$28.80. To extract the sugar, pay interest, depreciation, and profits, they have left \$18.80. This takes no account whatever of the presumably large value of the pulp, molasses, and other by-products.

I note scattered throughout the article quoted, and that of Dec. 27, entitled, "Beet Growers ask for 50-50 Split of Profits," statements that you are actuated only by a feeling of justice and fairness to both sides involved in the question and that: "We will be glad to correct any statements which they (the manufacturers) prove incorrect." Presuming therefore on your sense of fairness thus set forth, and upon your expressed willingness to correct any erroneous statements, I take the liberty of calling these facts to your attention:

Hogs are worrying Kansas. Senator Arthur Capper writes a letter to Secretary of Commerce Alexander telling the troubles of Kansas. He says 1,600,000,000 pounds of surplus pork are left on the hands of the meat producers of the west and the stockman must face enormous losses unless assistance arrives promptly.

Europe has stopped buying American pork, the Senator says, and it is his judgment that some arrangement should be made to extend credit to the people across the sea that they may be enabled to take the fats which they need and that the stockmen and farmers of the United States may not be forced out of business. Besides he advocates as a further remedy, the reduction of ocean-carrying charges, thus making geasy in every way the unloading of the vast accumulation of

First, in any chemical process where organic materials are involved, it is impossible to make a 100% recovery. This statement should require no involved technical proof as your own good common sense will tell you that this must be so. As an example, consider that all of the butterfat in milk does not go into the skimmed milk and part into the butter milk. Yet the processes involved are very simple. You can readily see that in the highly complicated processes of beet sugar manufacture the losses might naturally be greater. As a matter of fact a standard beet sugar factory is doing very good work indeed to recover 80% of the sugar in the beet. I am a chemical engineer with nine years' experience in the manufacture of beet sugar and I will be glad to give you a supporting affidavit to this effect.

Again you mention, "The presumably large value of the pulp, molasses and other by-products." We assume that you know that molasses contains sugar, and as an authority on farming subjects, you should know that beet pulp likewise contains sugar. Let me ask you where this sugar comes from if, as you say, the manufacturer sells as refined sugar 320 lbs. from a 16% beet. Your statements contradict themselves and should be sufficient proof to you of their inaccuracy.

Allowing an 80% recovery instead of the 100% which you assume, a ton of 16% beets would yield the manufacturer \$13.04 instead of the \$18.80 as stated in your article. When you deduct from this \$1 to \$2 to pay freight, rehandling costs, agricultural and seed expense you have left \$11 or \$12 from which to pay manufacturing costs, interest, depreciation and taxes.

I will not mention the risks which the manufacturer must take or the years when a drop in price has robbed him of his profits. I am not advancing any arguments to promote the raising of beets at any price, and I do not wish to enter into any controversy with you on the subject, but hope that your sense of justice is such that you will be glad that I have called to your attention the inaccuracies mentioned and that you will be anxious to frankly correct them.—*E. E. Stiff, Holland, Mich.*

The correction is gladly made. Mr. W. H. Wallace, president of the Michigan Sugar Company, was my authority for the statement that the 1918 beets yielded 16 per cent sugar. Our understanding was that the Michigan Sugar Company extracted that much sugar from each ton of beets. We find upon inquiry and investigation that our statements in this respect were incorrect. We note that you do not care to enter into a controversy as to the justice of the farmers' demands for a more equitable contract. Accepting your figures as correct, and adding in the value of the by-products, does it not appear to you that the sugar manufacturers are getting considerably more than their share of the sugar profits? Come, be as fair with us as we have been with you and tell us your views upon THAT subject.—*Editor.*

## The Week's Editorial—"Pork Plenty and Scarce"

meats which the American people cannot use.

The citizens of Detroit who carries home a microscopic slice of ham purchased at 30 to 50 cents per pound, or who feels the necessity of cautioning his children to "go light on the pork chops or they won't go round," might wonder why a little of this enormous surplus couldn't be shunted off the European routes into Michigan.

Senator Capper says the situation is so critical that farmers are compelled not only to reduce their breeding stock but also in many cases have gone out of business of stock breeding altogether. Wouldn't it be too bad if both Europe and America should have to go hungry for pork just because the western farmers have too much? What's the matter with this crazy world, anyway? *Detroit News*

## A REAL MAN FOR GOVERNOR

What I want for governor, if he can be found, is a man of the Abe Lincoln type. I don't believe he ever wore kid gloves and his hands were hard and calloused splitting the rails he did.

Politics at Lansing are getting almighty rotten. There needs to be a housecleaning there the same as the farmer does to his corn crib when it gets infested with rats. Our taxes are increasing by leaps and bounds. I am informed that there has been created at Lansing about 1,500 needless and useless jobs and offices so that Tom, Dick and Harry could pay off their political debts without going down into their own jeans.

I don't know why a farmer with a college education and well read and posted on all topics of the day besides, and there are such, needs any experience other than he gets on the farm to fit him for governor. An up-to-date farmer has a broader and a more diversified knowledge than any other man and if he is not qualified to be governor just tell me who is. And if he is thoroughly in sympathy with farming and farmers he will not be so apt to join the clique and become a "king."—*A. A. L., Kent County.*

"We, the farmers of Michigan, hereby agree not to support any candidate for office who wears kid-gloves." My, what a shedding of kid-gloves by the politicians there will be! Glove factories will go into bankruptcy and the leather market will be shot to pieces. But would we have any improvement in our political situation? No doubt, the old woolen mits are a better guide to an honest heart and a broad mind than kid-gloves but it does not always follow that the mittened man is always a wise and good man, or the kid-gloved individual a knave. You're quite right about the situation at Lansing. The state needs a housecleaning, from cellar to garret, and when we elect men for the job, we not only want to look for those who will pledge themselves to clean house, but who also know how to do it. There are a good many men in Michigan who, in their younger days wore callouses on their hands just as Abraham Lincoln did, but like Lincoln, were pushed into positions where they had to use their brains more and their hands less and are today just as dependable and certainly better equipped to serve the people than in their younger days. There must not be any question about the attitude of the next governor of Michigan toward the farmers. He must be either an actual farmer or a man who has been actively identified with farm affairs, and he must be broad-minded enough to give equal consideration to all essential interests of the state. If there is a man listed among the "farmer candidates" on our straw ballot whom you cannot trust to act as the next governor of Michigan, we'd like to have you name him.—*Editor.*

## RETURNING THE RAILROADS

You ask for the sentiment of the people on returning the railroads to the private owners, and I can not see any better way to get at it than by the way we used here in the little town of Winn. We took a vote on the matter here and out of sixty-nine men, three voted to have the roads returned, and forty-nine to have the government own and control them in the best interest of all the people, ten not voting either way. Among those who voted were two doctors, one preacher, four produce shippers, one barber, one meat dealer.—*W. W. Winn, Mich.*

This is interesting information. One of the arguments used by some of our congressmen for the immediate return of the roads is that public sentiment seems to be "so overwhelmingly in favor of it." But we imagine that if a poll were made among the "folks back home," they would not find this sentiment so "overwhelming."—*Editor.*

## A FARMER FEDERATION

For many years the writer has favored and urged a working federation of the farm organizations of the state. We strongly favor the movement for a farmer governor and also for a larger farmer representation in our legislature and in Congress. A number of the farmer candidates mentioned we know will measure up in force, intelligence and ability with any men that can be named. Let us unite for a clean, broad-gauged and aggressive candidate and for an honest, clean and able administration of state affairs.—*Louis A. B., Outlook Farm, Bangor, Mich.*

The farm organizations have endorsed a man who will measure up to your requirements. Now, if the farmers will get busy in their local districts, organize and elect men in whom they have confidence, we shall have the kind of an administration that you describe.—*Editor.*

(Additional Readers' Letters page 25)



# MARKET FLASHES

## WHEAT AT ITS PEAK

WHEAT PRICES PER BU., JAN. 12, 1920				
Grade	Detroit	Chicago	N. Y.	
No. 2 Red	2.62		2.65	
No. 2 White	2.60	2.70		
No. 2 Mixed				

PRICES ONE YEAR AGO				
Grade	Detroit	Chicago	N. Y.	
No. 2 Red	2.30	2.30	2.36	
No. 2 White	2.28	2.28	2.34	
No. 2 Mixed	2.26	2.27	2.33	

Wheat has attained a point on the American markets unequalled during the century. A car of dark No. 1 Northern spring has sold for \$3.50 per bushel. Hard winters have been selling in Kansas City at over \$3, and generally strong high prices are noted. In Detroit, the rise in price during the past week has averaged 16 cents per bushel for all grades.

The Grain Corporation has been selling some wheat to dealers but shipments have not been as large as desired. Julius H. Barnes, federal wheat director, has just come out with the interesting statement that wheat and flour handlers are confronted with price hazards which may follow withdrawal of government control when the activities of the Grain Corporation are brought to an end in June. His statement was issued to the 42,000 who hold licenses issued by the corporation.

Mr. Barnes emphasized the statement that "the reduction of commitments to the minimum required for the conduct of necessary current business" will be a wise policy for the grain trade upon the termination of two years of official stabilization and in view of the present world situation. He is encouraging in his prediction that thrift in the use of the nation's food supplies has begun to replace general extravagance.

## CORN SLIGHTLY BEARISH

CORN PRICES PER BU., JAN. 12, 1920				
Grade	Detroit	Chicago	N. Y.	
No. 2 Yellow			1.68	
No. 3 Yellow	1.54	1.49		
No. 4 Yellow	1.50			

PRICES ONE YEAR AGO				
Grade	Detroit	Chicago	N. Y.	
No. 2 Yellow			1.57	
No. 3 Yellow	1.47	1.40	1.55	
No. 4 Yellow	1.42	1.36	1.50	

Corn dropped off as much as two cents in the Chicago market according to opening quotations at the first of this week. For some time stock has been taken in the fact that usually there comes somewhat of a depression in the corn market during the month of January, even though the demand usually increases and snow delays shipments. One of the main reasons for throwing the corn market off color was the fact that the Federal Reserve Discount rates were tightened considerably.

Uncertainty as to shipping conditions has created much discouragement and given the bears a freer chance to operate. The railways of the nation are short somewhere around 300,000 cars, as compared to the theoretical requirements. Favorable weather may make possible the long predicted run of corn to the markets, inasmuch as the federal controllers have consigned many trains of cars to be used for deliveries of corn.

## OAT MARKET STRONG

OAT PRICES PER BU., JAN. 12, 1920				
Grade	Detroit	Chicago	N. Y.	
Standard	.89	.85	.98	
No. 3 White	.88	.84		
No. 4 White	.87	.83		

PRICES ONE YEAR AGO				
Grade	Detroit	Chicago	N. Y.	
Standard	.73	.68	.78	
No. 3 White	.72	.67	.77	
No. 4 White	.71	.66	.75	

Although the prices for oats showed a fraction of a cent decline at the markets' opening this week, oats technically are in about the strongest position of any of the grains. The temporary slump was due almost entirely to sympathy with corn. Eastern demand for Jul delivery has



DETROIT—Scarce supply bolsters wheat markets; potatoes higher; beans strong and steady. Seeds are active and steady. Hay firm and buying active.

CHICAGO—Corn and oat prices drop slightly. Provisions bearish. Hog market dull, cattle higher.

## Weekly Trade and Market Review

BUSINESS is generally in healthy condition, despite unrest in some quarters. Orders from big dealers are greater than ever before; the steel strike has officially closed and no other great strike is troubling America. The Peace Treaty, so far as the European nations are concerned, has at last been signed and trade has been resumed. America is still held up because of the Senate's delay in signing the treaty, but it is expected that a settlement must be made soon, causing an encouragement to world trade.

Among the factors which one should consider for the coming months is the fact that this is a presidential election year, during which government is likely to be swayed by motives of winning popular approval. Business this year will have to yield somewhat to the issues of the election, of the precedent of other election years holds true. It must be further acknowledged that there is a feeling of uncertainty and unrest in the nation; probably much of this is due to the breaking down of the war strain and conditions aggravated by much fiery and unusual talk by intellectuals, accompanied by some real grievances of the "underdogs." The government apparently has abandoned the intention of granting further credits to Europe which needs billions. The effect of this is feared to be dangerous for our export trade, although private corporations may arrange for great loans.

Wheat seems assured of general firmness for the time being, but there is considerable hazard in the corn market, due to the dumping of large stocks on markets, something which frequently happens in January. A great amount of buying, however, may save the day for the bulls. Potatoes seem to be going sky-high, compared with old prices. Hay stays firm, and live stock prices have gone down before heavy receipts. Crop reporters tell of higher prices for many products to the producers, and it is believed that in general the tendency should continue.

In the meantime, business in general is healthy, while the producers are being pestered as usual by the army of market manipulators.

made for a firmer condition than May delivery.

There has been a persistent demand for cash grain for export, and millions of bushels have been set aside for this purpose. And there is strong demand for all the stocks on hand in most markets. The oat crop in the United States this year fell well below the five year average, and the same condition applies to the output in Europe and the Argentine.

It is true, however, that oats may decline in case of sharp drops in the corn market, or in case some factor hampering foreign trade should arise.

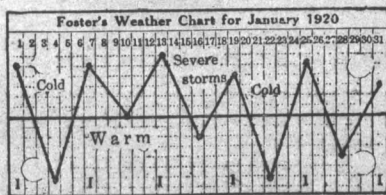
## NOT ENOUGH RYE

It seems as though exporters are unable to get all the rye crops they want in this country to satisfy European demands, and they snap up quickly nearly all receipts at the markets as fast as the stuff arrives. Naturally the effect is very strengthening on the markets, although the prices have not advanced much. Detroit quotes rye at \$1.86 for Cash No. 2.

The export demand for barley has not been so good of late and some slight ups and downs have occurred due to the export factor. Detroit quotes barley Cash No. 3 at \$3.

## THE WEATHER FOR THE WEEK

As Forecasted by W. T. Foster for MICHIGAN BUSINESS FARMING



WASHINGTON, D. C., Jan. 17, 1920. Warm waves will reach Vancouver about January 16, 22, 28 and Feb. 3, and temperatures will rise on all the Pacific slope. They will cross crest to Rockies by close of 17, 23, 29 and Feb. 4; plains sections 18, 24, 30 and Feb. 5; meridian 90, great lakes, middle Gulf States and Ohio-Tennessee valleys 19, 25, 31 and Feb. 6; eastern sections 20, 26, Feb. 1 and 7, reaching vicinity of Newfoundland about Jan. 21, 27, Feb. 2 and 8. Storm waves will follow about one day behind warm waves, cool waves about one day behind storm waves.

These disturbances will dominate the weather of North America from near Jan. 17 to near Feb. 8. The week centering on Jan. 17 was expected to begin with high temperatures on meridian 90 and end with colder than usual, the cold reaching that line near Jan. 22. Then about the usual aver-

age of temperatures with no unusual changes up to Feb. 3. Severe storms are expected during that week about middle latitudes moving southeastward and on meridian 90. See Foster's Weather Map. If you have not received it send your address and a 1-cent stamp to W. T. Foster, 1625 1-2 North Capital Street, Washington, D. C. You cannot fully understand these forecasts without that map. It will not be sent you unless you are a subscriber to some newspaper or magazine that publishes my forecasts.

I give the dates that weather events reach certain places along the line benefit out of the forecasts. Nearly all the storms affect Vancouver, in the extreme northeast and you must do a little thinking in order to get most from the extreme northwest to the vicinity of which they move southeastward usually. When only meridian 90 is mentioned the vicinity of Vancouver is about two and a half days earlier and Newfoundland about the same time later. Middle latitudes are near 40 to 45. A storm on these latitudes affects the whole continent. It is warm southeast of the storm center, or low, and cold northwest of it.

W. T. Foster

## BEANS IN FAIR DEMAND

BEAN PRICES PER CWT., JAN. 12, 1920				
Grade	Detroit	Chicago	N. Y.	
C. H. P.	7.25	7.75		
Red Kidneys		13.75		

PRICES ONE YEAR AGO				
Grade	Detroit	Chicago	N. Y.	
C. H. P.	8.75	8.25	10.25	
Prime	7.75	8.50	9.50	
Red Kidneys	12.00	12.00	13.00	

Beans are in fair demand and steady this week after dullness some day last week, and especially during the holidays. During the last month farmers generally have shown a strong disposition toward holding back their beans until fairer prices are offered. Along with this factor, elevator men announce that more than half the Michigan bean crop is thought to have been shipped out of the state. Eastern states tell of very short supplies. Along with this is the condition of shortage in the bean production this past year—it is the lowest for about four years. Elevator men agree to a large extent, we are informed, that the farmers should get a higher price in order that the production continue in the coming season. Taking all these factors into consideration, the long hoped for boom in the bean market is confidently awaited by thousands of farmers who are holding their supply for a fair price.

## POTATOES STILL CLIMB

SPUDS PER CWT., JAN. 12, 1920			
	Sacked	Bulk	
Detroit	4.50	4.30	
Chicago	4.50	4.30	
Pittsburg	4.00	3.90	
New York			

PRICES ONE YEAR AGO			
	Sacked	Bulk	
Detroit	2.15	2.00	
Chicago	2.15	2.00	
Pittsburg	2.10	2.00	
New York	2.15	2.00	

Potato prices in general have gone up during the past week or so, although increasing receipts endanger prices at some points. In the growers' markets in Detroit this week, as high as \$2.50 per bushel was paid for the best grades. Greenville quotes spuds at \$3.45 per cwt.

In the East the spud market is firm and prices are high. New York City reports receiving much frozen stock which had to sell at low prices but the good grades which arrived in good condition are bringing quite fancy figures. Aroostook county, Maine, reports that potatoes locally are bringing around \$3.75 per cwt. In the cities, of course, the figures run higher. Eastern experts to a large extent predict somewhat higher figures in the potato market.

As for the middle west, Chicago shows the highest figures for the season on the potato market. Mild weather and an active demand with a pretty light supply shot up the prices to over \$4 for nearby white stock. This bit of news is especially interesting to Michigan potato growers who are sending heavy consignments to Chicago this winter, much larger than in the winter a year ago. Experts in Chicago do not seem to be doing much predicting. And although some good authorities prophesy still further upward jumps, the bears tell of the havoc which unusually heavy receipts would cause.

## DETROIT PRODUCE MARKET

The growers' markets in Detroit are notable for generally higher prices asked for all lines of vegetables, and for the limited amount of trading at the top figure. The demand for celery is good and sales are made all the way from 60c a dozen small stalks up to \$1.15 for some extra fancy. Root crops are high in price and while the supply is heavy the movement is slow and the markets do not clean up until substantial cuts are made.

Potato growers have a hard time disposing of their truck loads at \$2.50. Apples are plentiful and in fair demand at unchanged prices. Dressed pork is in light supply and slow demand.



Apples, fancy, \$3.25 to \$3.50 bushel; No. 1, \$2.75 to \$3 bushel; No. 2 \$2 to \$2.50 bushel; beets, \$2 to 2.25 bushel; carrots, \$1.75 to \$2.50 bushel; cabbage, \$2.50 to \$3 bushel; celery, 60c to \$1.15 dozen; French endive, 25c to 40c pound; horseradish, \$3 to \$3.50 bushel; leeks, 90c dozen bunches; leaf lettuce, 31c pound; onions, \$3 bushel; oyster plant, 75c dozen; potatoes, \$2.40 to \$2.50 per bushel; parsnips, \$2 to \$2.50 bushel; pumpkins, \$1 to \$2 dozen; popcorn, \$2.50 bushel; rutabagas, \$1.25 to \$1.50 bushel; squash, 2c to 2 1-2 cents pound; turnips, \$3 bushel; live poultry, hens and heavy springers, 32c to 33c pound; light weight chickens, 27c pound; dressed pork, 18c to 20c pound; dressed veal, 26c.

## HAY PRICES ADVANCE

	No. 1 Tim.	Stan. Tim.	No. 2 Tim.
Detroit	30.50 @ 31	29.50 @ 30	28.50 @ 29
Chicago	30.00 @ 31	29.00 @ 30	27.00 @ 28
New York	33.00 @ 34	32.00 @ 33	30.50 @ 31
Pittsburg	33.00 @ 34	32.00 @ 33	30.50 @ 31

	No. 1 Light Mix.	No. 1 Clover Mix.	No. 1 Clover
Detroit	29.50 @ 30	28.50 @ 29	28.50 @ 29
Chicago	29.00 @ 30	27.00 @ 28	28.00 @ 32
New York	34.00 @ 35	31.00 @ 33	30.00 @ 31
Pittsburg	32.00 @ 33	34.00 @ 35	31.00 @ 32

	No. 1 Tim.	Stan. Tim.	No. 2 Tim.
Detroit	28.50 @ 29	27.50 @ 28	26.50 @ 27
Chicago	30.00 @ 32	29.00 @ 30	28.00 @ 29
New York	30.00 @ 32	29.00 @ 30	27.00 @ 28
Pittsburg	27.50 @ 28	27.50 @ 28	26.50 @ 27

	No. 1 Light Mix.	No. 1 Clover Mix.	No. 1 Clover
Detroit	27.50 @ 28	23.50 @ 24	22.50 @ 23
Chicago	28.00 @ 30	28.00 @ 29	16.00 @ 25
New York	28.00 @ 30	23.00 @ 26	24.00 @ 26
Pittsburg	27.50 @ 28	27.50 @ 28	26.50 @ 27

Receipts of hay are light at all markets, due to light country loading, the car shortage and embargo restrictions. Trade is only fair, although it has picked up some since the first of the year. Sharp advances were made in New York owing to an unusual embargo situation, while at other points both East and West, supplies have been moderate and trade more active during the week. All markets report a good trade in the better grades, and that low qualities are more plentiful and less sought for.

## CHANCE FOR MEDIUM WOOL

"It has struck twelve o'clock for fine wools" said a well-known buyer for a large mill at the close of the government sale recently. This sentiment is found to be more or less generally echoed through the trade. Nor does it necessarily go so far as to say that like the downward movement of the hour hand of the clock, the value of fine wool will steadily decline, for such is not the consensus of opinion. Rather, that the top has been reached and that the outlook at this writing is for an increasing interest in medium wools which long have been neglected more or less and consequently less pressure to buy fine wools and so push prices higher.

Quotations in Boston follow for Michigan and New York fleeces:

Fine unwashed, 67 @ 68; Delaine, unwashed, 87 @ 90; 1-2 blood unwashed, 80 @ 82; 3-8 blood unwashed, 68 @ 69; 1-4 blood unwashed, 65 @ 67; 1-2, 3-8, 1-4 clothing, 55 @ 57; common and braid, 41 @ 42.

## MORE STABILITY IN LIVESTOCK

The holiday season is over. The turkey has had his brief reign, and again the three staple meats come into their own. Unusually wide fluctuations have occurred in the markets of late. We have seen a sharp and regrettable decline in fat cattle values, but some later recovery, a meteoric rise in lamb values and a substantial advance on hogs. But withal there has been a dominant note—as they say in musical circles—of stability, a healthier tone to the general trade, a harbinger of more stable conditions, let us hope. It has not been hard to clear the offerings—for buyer and seller to come fairly early agreement as to values. Possibly the sharp weather has had something to do with it, for a long session in the yards these days is not a thing to be devoutly wished. A healthy demand means naturally a good one—more buyers, more competition. The eastern outlet has shown distinct improvement. —Clay, Robinson & Co.

## DETROIT LIVE STOCK

Cattle: Market dull; best heavy steers, \$12 to \$12.50; best handy weight butcher steers, \$10 to \$10.50; mixed steers and heifers, \$9 to \$9.50; handy light butchers, \$8.25 to \$8.75; light butchers, \$7.25 to \$7.75; best cows, \$8.50 to \$9.15; butcher cows, \$7 to \$7.50; cutters, \$6; canners, \$5.25 to \$5.50; best heavy bulls, \$9; bologna bulls, \$8 to \$8.50; stock bulls, \$7 to \$7.50; milkers and springers, \$60 to \$125. Veal calves: Market very dull; best, \$19 to \$22; others, \$8 to \$17. Sheep and lambs: Market 50c higher; sheep steady; best lambs, \$19.25; fair lambs, \$18 to \$18.75; light to common lambs, \$12 to \$14; fair to good sheep, \$9.50 to \$10; culls and common, \$4 to \$7. Hogs: Market steady to 10c higher; all grades, \$15 to \$15.10.

## STATE TAXES INCREASE

750 PER CENT IN 24 YEARS

(Continued from page 7)

of city property, as compared with the comparatively slight increase of values of Gratiot county, we raise a question as to whether or not Gra-

tio county is not paying considerably more than her share of the state taxes. We do not assert that this is the case, but we strongly suspect that it is. Anyway, it is a subject that deserves the attention of a tax expert who is not bossed by Wayne county or her politicians.

Another reason why some people are finding the higher taxes burdensome is because others are not paying according to their ability to pay. Adam Smith, in his "Wealth of Nations," says: "The subjects of every state ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state."

This is good philosophy, and could well be applied to Michigan. Thousands of people in this state are today drawing salaries from \$5,000 to \$15,000 a year without having a taxable investment, and are accordingly enjoying the protection of government without paying for it. Manufacturers, too, are making large profits from which the state derives no direct benefit and

very little indirect benefit. The man who saves from his income ought to be obliged to pay a small portion of those savings to the state, thereby relieving the man of property and particularly the farmer who, in occasional years, makes no profit from his operations, but whose tax like John Brown's soul, goes marching on just the same. It is an old saying that one man's fortune is another man's misfortune, so let the fortunate who can afford to do so pay the tax.

This tax problem is the biggest thing confronting the state at the present time. When state taxes jump in three years from \$7,220,831 to \$17,000,000 it's time to call a halt and make an investigation. It is to the advantage of every farmer and his wife to take an interest in this matter and send men to the legislature who will give the subject their serious attention instead of spending their valuable time trying to create more jobs to make more taxes to put more burdens on the taxpayer.

(The second article in this series on taxation will appear in an early issue.)

## Hudson's Four Year Old Prophecy Fulfilled

*The Super-Six Motor Patented, Controlled And Exclusive to Hudson Has Met Every Promise*

"The superior type which all must concede" is a claim we made for the Hudson Super-Six nearly five years ago.

Today close to 80,000 Super-Six owners and scores of official records reveal the truth of that prophecy.

Hudson originated through the Super-Six a principle which added 72% to power and 80% to motor efficiency. It reduced vibration almost to nil and thereby increased motor life. The forces which in other types destroy are in the Super-Six directed to useful employment.

They account for Hudson becoming the greatest speed, hill-climbing and transcontinental car ever built. Its position is not questioned. Everyone knows it.

### Hudson Alone Controls the Super-Six

There is little doubt that all would adopt its invention were it not for the patents which Hudson holds.

Think what it means to add 80% to efficiency without increase of weight or sacrifice of simplicity. That advantage was recognized by engineers as soon as the principle was revealed. Everyone admits the unrivaled position of Hudson. Who questions its superior ability in any performance that calls for power, flexibility and endurance?

Further development of the first Super-Six was inevitable. But nothing has called for a change in the principle which gives it exclusive advantage. Improvements have come through refinement and in raising other car units to the standard of its motor.

### Each Year Has Seen a Greater Hudson

No one at first realized the Super-Six capable of withstanding such punishment as it

has taken in the hardest tests ever imposed on a motor car.

The fastest 100 miles ever officially recorded of a stock car did not show Hudson's limit. So harder tests were imposed. The twenty-four hour run was one; and although a Super-Six stock chassis in that time traveled a distance greater than from New York to Denver, its endurance limit remained unknown. The trip across the continent from San Francisco to New York, in a seven-passenger touring car, was made in 13 hours less time than its nearest rival. And then, since that did not show its endurance limit, the car was turned about and completed a test never attempted by any automobile before or since. The round trip was made in 10 days, 21 hours.

### So the Present Hudson Is Even Greater

Each successive Super-Six model has added to Hudson's leadership. Each Hudson has become even more dependable, and now it seems to be as nearly perfect as it is possible to make an automobile.

### And Everyone Admits Hudson Leads in Style

Look about in any assemblage of fine automobiles and note the dominant distinction of Hudson. Even sellers of rival cars, unwilling to admit the mechanical superiority of the Super-Six, because in that particular they know none other can use its motor, openly say Hudson sets the style in body types.

The Super-Six motor made Hudson the largest selling fine car in the world. Buyers have always had to wait for delivery of favorite models. They are waiting today. You will surely want a Super-Six sometime within the next year. Now is not too early to order.

Hudson Motor Car Company, Detroit

(H-1)





# The Farm Home

## A Department for the Women



"If you can keep your head when all about you are losing theirs and blaming it on you; if you can wait and not be tired of waiting or, being lied about, not deal in lies—The world is yours, and all that's in it; and, what's more, you'll be a man."—Kipling.

SOME call it POISE; some call it SCIENCE, but whatever that thing is which gives us the grasp on ourselves and causes us to grip our mentality and hold fast to the things we know and not be led astray by the things we hear, is something most of us need to acquire more of.

A sharp reminder of this fact came to our attention when we were told that in one city in Michigan alone forty people were driven insane over their belief that on December the seventeenth this old world would end. Some there were who dared dark deeds; while others remained in prayer all day, but Old Sol rose as usual and set again at nightfall, leaving no trace of the prophesied end with the exception of those people to whom the end of their reasoning power had come.

If each day we do our allotted tasks as best we may; if each day we treat our fellow men as if this were indeed the last day, then surely we have nothing to fear whether the end come now or fifty years from now, and in the meantime we might as well be found busy for in work comes contentment, and the man who is busy finds little time for these flights of fancy which result disastrously. There is no gainsaying the fact that the mental condition of its people plays a large part in the health rate of any city, and when we realize this and also appreciate the fact that our mental attitude toward life and things in general rests with ourselves, then, and not till then will we have grasped the big fact that we can indeed be masters of ourselves and our destinies.

The late Sir William Osler, who only recently passed away, was a great apostle of the doctrine of work. It was in an address in which he deplored the tendency to discard elderly men while they had still plenty of work in them that he made the remark that has been taken from its context, misquoted and given an entirely different meaning. I refer to his statement that if you take men still capable of good work from their employment and give them only a life of leisure, you might as well chloroform them. He referred to so many men retiring at the age of sixty, and from this statement came the "Osler" idea of doing away with all who had passed their period of usefulness, which was not as he meant.

And it is with women as with men, only perhaps to a greater degree, that if you do not keep the hands and mind busy with useful occupations, distorted ideas are apt to creep in. The best cure for any kind of "nerves" is useful occupation.

### SEEN IN CITY SHOPS

Since early fall the tendency has been toward short sleeves. The light weight silk and satin dresses of winter had the short sleeves, but now that the shops are beginning to show the clothes for wear at the southern resorts, it is noticeable that all the smart frocks are short of sleeve and this is a sure indication of the coming season's styles, for whatever the winter resorts accept is usually to be depended upon as being good for the full season.

The new slippers which the shoe stores are displaying have a bow tie and yet they are not an oxford. However these are only a fad, for they will not take up the fad, just because it is something new. A slipper so fashioned that a bow is necessary, must needs always have that accompaniment, and unless that bow is fresh and neatly tied, it is tacky. Then again, unless the foot is small, it only serves to call attention to it.

## WOMEN IN POLITICS

By JUDSON GRENNELL

WITH THE HOLIDAYS past we have time again to turn to the consideration of more serious reading, and so we will this week publish an installment of Judson Grennell's Brochure, which many of our readers are following with profit as well as interest.

### Broad-Minded Officials Needed

Michigan is a great mining, manufacturing and agricultural commonwealth. Its variety of industrial activities call for officials of more than usual broad-mindedness and proficiency. Available material for state officials is therefore not so easy to find. Too often the contest has been between candidates of mediocre ability; whoever won, the voters lost. Yet there is an abundance of good official

material in Michigan, and it is now up to each woman voter to help find it. Apply commonsense to the situation. Seek for those who are—

Broadminded.  
With executive ability.  
Of high character.  
Clean in their morals.  
Not classbound.  
Of wide experience.

As to Class Candidates

It has always been a mistake to elect a pronounced class candidate. Few, if any, can throw off class prejudice and discard the class viewpoint. A class candidate, if elected, will accentuate whatever most favorably affects his class, at the expense of other classes; and it makes no difference whether the class represented is one composed of mine operators, manufacturers, farmers or wage workers.

The woman voter must favor no class as against the mass. Here her intuition, if she will but submerge her own class prejudices, will be of great help to her. Intuition is only the combining of the judgment of all the senses enlisted to enable her to reach a wise conclusion.

Intuition, without seeing each link in a chain of circumstances, will leap wide chasms of unexplained and sometimes unexplainable circumstances and conditions, and arrive at a wise conclusion.

A majority of the Michigan legislature, composed of 32 senators and 100 representatives, makes the laws; the judiciary interprets them; the executive enforces them. To be worthy of any Michigan woman's vote, more than ordinary ability ought to be pos-

sessed by the candidate ambitious to be a state official.

### Highways

Michigan has not yet found herself in the matter of highways. As this is written the question of issuing \$50,000,000 worth of bonds, to be expended in improving roads, is being discussed. The state has some 75,000 miles of highways. Equally distributed, this \$50,000,000 would allow the expenditure of \$666.66 on each mile of highway. This is too much in the case of roads infrequently used, and much too little for trunk lines—those subjected to heavy traffic. One may well hesitate to say whether or not the expense of the benefit conferred by improving highways can be equitably distributed by bonding the en-



## A Poem for Parents

"I took a piece of plastic clay  
And idly fashioned it one day,  
And as my fingers pressed it still,  
It moved and yielded at my will.  
I came again when days were past,  
The bit of clay was hard at last,  
The form I gave it still it bore,  
But I could change that form no more.

I took a piece of living clay,  
And gently formed it day by day,  
And molded with my power and art  
A young child's soft and yielding heart  
I came again when days were gone;  
It was a man I looked upon;  
He still that early impress bore  
And I could change it nevermore."

material in Michigan, and it is now up to each woman voter to help find it. Apply commonsense to the situation. Seek for those who are—

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With executive ability.  
Of high character.  
Clean in their morals.  
Not classbound.  
Of wide experience.

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sessed by the candidate ambitious to be a state official.

Considerable sums expended within recent years for improving highways have been wasted. Sometimes attempts at economy have resulted in extravagance; sometimes there has been a profligacy in road building quite as bad. The immediate and greatest beneficiary of an expensive highway ought to be taxed in proportion to benefits conferred, and then the inferior beneficiaries should not be expected to pay for what in the very nature of the case can only incidentally benefit them.

### Bonds

The woman voter, in voting for bonds, must also keep in mind the unquestioned fact that immediate expenditures of unusually large sums in any given direction deranges normal business and normal prices. The country's war expenditure experiences show this. Usually the increasing cost, because of this derangement, exceeds the immediate benefits. The losses more than offset the profits. Still, what is a large sum for a locality, may be reasonable, or even small, for a state to expend. Figures are relative. Today the country has become accustomed to big figures—to billions. It is sometimes sensible to "extravagant" in order to prevent greater extravagance in other directions.

### Taxes

The cost of Michigan's state government runs into the millions. This cost ought to be equitably distributed, in proportion to the benefits conferred. The state collects most of its revenue from a general property tax,

and a special tax on public utility corporations. The defects in the tax laws are so numerous that every legislature is called on to pass amendments, to shift taxes, or to increase or decrease the number of things taxed. The tax on personal property is acknowledged by all who have given any study to the problem to be so inequitable in its application as to shame the state. The taxes on public utility corporations are shifted to consumers, either by higher rates or by inferior service, just as the war tax on places of amusements are shifted to those who attend such places of entertainment.

Taxation should favor the wealth producer as against monopoly or unearned increment.

### Consider These Propositions

1. Favoring the broad-minded candidate with experience, as against the one who represents a class.
2. Making institutions for the unfortunate, as far as possible, self-supporting.
3. Placing authority and responsibility in as few hands as possible by advocating the short ballot.
4. Frowning upon all attempts to use state property for private gain.
5. Carefully scrutinizing bonding propositions, to the end that the tax burdens laid may be borne by those directly benefitted.
6. Encouraging thrift by untaxing wealth.
7. Cultivating the intuitive faculty where complete knowledge of a candidate or a problem is not to be obtained.

## OUR READERS' OWN COLUMN

Dear Laddie: As the children call you. I am sending you a sample of Bodi-Tone, and one of the letters I got. I have already taken some of this patent medicine, and if you will ascertain if it is really as good as they claim? I would like to give it a further trial.—Mrs. R. B.

The Food and Drug Department of the State of Michigan made an analysis of this patent medicine and report as follows: "This preparation contains the following: Iron phosphate, lithia, berberin, rhubarb, Peruvian bark, emodine bearing drugs.

There is nothing here which would prove injurious to the kidneys UNLESS the sufferer had an aggravated case, when harm could be possible as a result of taking the tablets."

You see, my friend, with this, like lots other patent medicines, a little will probably do no harm, but if you are troubled enough so that you need to take a quantity of any drug it might be far better to be under the direction of a reputable physician.

Editor, Woman's Department, M. B. F.: My hair is coming out at an alarming rate. In the cities you are close to hair dressers who make a specialty of this work and through their treatments can probably stop this loss, but I want something that I can do at home to not only stop the hair falling but promote a new growth.

True, we in the cities are near hair dressers who do give treatments and charge big prices but the greatest good they do can be done right in your own home if you will only take the time. In the first place, try warm salt and water for the falling hair. Rub this well into the scalp every night, and then follow this with a brisk massage for one-half hour. If you will thoroughly rub the scalp, massaging it gently but firmly every night for one-half hour, you will find that your hair will stop falling and a new growth will be encouraged. The chief advantage is to get the blood circulating through



## LATEST STYLES and New York Patterns

No. 2970.—A Set of Pleasing Toys for the Nursery. Cut in 1 size. Either style requires 3-4 yard of 27-inch material.

No. 3036.—A Popular Style. Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 5-8 yards of 44-inch material. The dress measures about 2 yards at lower edge with plaits extended.

No. 3042.—Girl's Dress. Cut in 4 sizes: 8, 10, 12 and 14 years. Size 10 requires 4-1-2 yards of 27-inch material.



No. 3037.—A Practical Model. Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 5-7-8 yards of 36-inch material. Width of dress at lower edge is about 21-4 yards.

No. 3053. Child's Dress. Cut in 5 sizes: 1, 2, 3, 4 and 5 years. Size 4 requires 2-1-4 yards of 36-inch material.

No. 2733.—Misses' Dress. Cut in 3 sizes: 16, 18 and 20 years. Size 16 will require 3-7-8 yards of 44-inch material. The dress measures about 2 yards at the foot.

No. 3034.—A Popular Style. Cut in 4 sizes: 2, 3, 4 and 6 years. Size 4 requires 2-5-8 yards of 44-inch material.

No. 2766.—Ladies' Apron. Cut in 4 sizes: Small, 32-34; Medium, 36-38; large, 40-42; and Extra large, 44-46 inches bust measure. Size 38 requires 3-7-8 yards of 36-inch material. The Sleeve protectors require 3-8 yard.

Herewith find ..... cents for which send me the following patterns at 10c each:

M .....  
.....

Pattern No. .... Size .....

Pattern No. .... Size .....

Be sure to give number and size. Send orders for patterns to Pattern Department, Mt. Clemens, Mich.

the little vessels which feed the hair follicles. Probably your system is below par and your circulation poor. This treatment if persisted in will do your whole system good and there are no bad after effects. Of course massaging is tiresome work, but if there are two women in the household who can take turns massaging each other's scalp, the result will warrant the effort.

### PLAN YOUR GARDEN NOW

**A** GAIN the catalog and seed houses are sending advertising matter, reminding us that very soon will spring be with us and that we must plan our gardens early, order our seeds and if we are to plant berry shrubs, they are better ordered early as they will be more apt to grow if they are planted before they begin to sprout. Plants are dormant at this time and in excellent condition to handle.

It is usually the women of the farm who have to care for the garden and if berries are planted it is usually they who express a wish for them and have to see to their ordering. At the price which they have been bringing for the past few seasons they are a very profitable crop, and as the most of the work consisting of planting, etc., can be done before the heavy farm work begins, the men folks will not object to setting them out. Of course the picking will fall on mothers and daughters principally, but if women are to enter the class of gardeners, probably the small fruits such as berries are among the best things to begin on as fruit can be picked before the sun is high and the work is lighter than any other kind of gardening.

Instruction for planting and preparing the soil will be sent you by any reliable shrubbery house for it is to their advantage that your shrubs and vines grow.

### THE ETERNAL WOMAN

**B**ACK of every question stands eternal woman. She has her way. She rules not from the throne, but from behind the throne; not in the council chamber, but in the desires and dreams of the councilors who sit there.

She has no voice, yet her arm is stronger than the soldier's.

She has no voice, but nations are moved by her smiles or her tears.

She is the secret of all, the solution of every puzzle, the clew to every maze, the splinter in every wound. As God is, so she is—silent, yet disposing.

She is the cause.

It was she who brought prohibition. "What," she said, "are your mouthings of personal liberty? Stop poisoning my boy. What are your gay nights on Broadway, the glitter of your revelries, the glow of your good-fellowship, the composing shadow of your skeptic customs? You are trampling my soul, while your hot eyes leer at my body."

"I must have my soul and my boy. Your Bacchic furies must go."

"I am tired of your intolerant passions and your debauched logic. I am done with alcohol."

She is behind the labor unrest.

"What I demand," she cries, "is the door of my dreams. I have borne children in poverty and dirt. My children shall have their chance. What care I for your laws and precedents? Give my boy his chance. I and the children of my body are human beings. What are property and capital and policemen and all authorities and magnificence to me? Unloose your strong systems and institutions, and let my boy breathe and be a man. How? I care not. One way or another you must do my will. I am a mother."

She is back of the peace council.

Only pompous men sit there. But behind every one of them is an unpompous mother.

"You prate of nations," she whispers, "of governments, rights and dignities. What are all such things to me? I want life, human life."

"I am tired of wars. I want to rock my cradle in peace. I do not want my sons brought up for slaughter, as pawns in your mad ambitions."

"What are your Monroe Doctrines and Croat-Italian quarrels, and Polish-German feuds, and your autocracies and bolshevisms? What about me?"

"You have but one question before  
(Continued on page 23)



## What Makes Your Garden Grow

Good productive, well fertilized soil, free from weeds is one thing to produce big crops. But pure, tested, sterling quality seeds are first in importance to make your garden grow and yield the biggest cash returns.

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"As They Grow Their Fame Grows"

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- it brings you all the news of Michigan farming; never hiding the plain facts.
- it tells you when and where to get the best prices for what you raise!
- it is a practical paper written by Michigan men close to the sod, who work with their sleeves rolled up!
- it has always and will continue to fight every battle for the interest of the business farmers of our home state, no matter whom else it helps or hurts!

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(FIVE YEARS....\$3) more than we ask.

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Keep M. B. F. coming to the address below for ..... years for for which I enclose herewith \$..... in money-order, check or currency.

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P. O. .... R.F.D. No. ....

County ..... State .....

If this is a renewal mark an X here ( ) and enclose the yellow address label from the front cover of this issue to avoid duplication.





**DEAR CHILDREN:**—We have recently awarded two prizes for original drawings, and if the artist is unable to get these in this week, I promise you that they will appear later. The prizes of "A Trip Around the World" in postal cards were sent to the winners, Myrtle Neuman, of Glennie, and Henrietta Droster, of Eagle, Mich.

And now I want to tell you what I have planned for the winter months and hope you will be pleased. You know in most of the home magazines they run what we call "continued stories," that is, stories which are too long to be printed all in one week and so a part is printed each week until the story is completed. This week we have a complete story, but beginning with next week and continuing for a number of weeks, we will have a continued story and at least every other week, and perhaps every week we will be able to have a puzzle. We want our page to be just as interesting as any other in the paper. Affectionately yours—LADDIE.

## THE JUNIOR COOK

### Orange Salad

Pick over and wash one head of lettuce. (A tender cabbage leaf might do.)

Wrap in a cloth and put in a cool place for at least two hours.

Just before meal time, peel and slice two oranges.

Arrange the lettuce leaves (3 to a plate is plenty), on a salad plate.

Put two or three slices of orange on each plate on top of the lettuce.

Into a measuring cup pour

Three tablespoonsful vegetable oil

juice as preferred.

One and one-half tablespoonsful of either white vinegar or lemon juice as preferred.

One-half teaspoonful salt.

One-half teaspoonful paprika.

Mix together well with a spoon and then dip over the dishes of salad.

Serve at once with wafers or tiny brown bread sandwiches.

One head of lettuce and two oranges will make eight plates of salad.

Fine for a holiday luncheon or dinner.

## LETTERS FROM OUR BOYS AND GIRLS

Dear Laddie—I have never written to you before, so thought I would try my luck. I go to school every day. I haven't missed but one day and a half this year. I am twelve years old now. My birthday is the third of November. I am in the sixth grade at school. I have a little brother three years old, his name is Merton and his birthday is the 4th of July. We had a Christmas tree at school and at home too. I got a lot of nice presents. The snow is pretty well gone here now. We have a dog and cat. The dog's name is 'Shep'. We live about six miles from the nearest town. We have a Ford car. I will close for this time as my letter is getting quite long. Hoping to see my letter in print.—Myrtle Hager, Vermontville, Mich., R. F. D., No. 3.

Dear Laddie—I am 11 years old. My father takes the M. B. F. My father has two colts named Bets and Maude. We have four horses and four cows, also two yearlings and three calves. We have 33 sheep and 29 pigs. We have an 80-acre farm. I am in the fifth grade at school. There are 18 pupils in our school. My teacher's name is Miss Hill. I am going to be a farmer when I get big. My letter is getting quite long so I will close, hoping to see my letter in print.—Basil Miller, Batavia, Mich.

Dear Laddie—I have written to you before, but didn't see my letter in print, so thought I would write again. I am 11 years old and in the fifth grade. I like to go to school. My teacher's name is Miss M. A. Thayer. I like her very much. There are 37 children in my room. Well I will close for now, hoping I will see my letter in print and hear from some of the other little girls and boys.—Ruby Randall, Webberville, Mich.

Dear Laddie—This is the first time I have written to you. I am ten years old. I have no brothers or sisters. For pets I have two cats, their names are Fuzzy and Buddy. We have two horses and eight cattle. I also have a pet calf, called April. The horses are Babe and Ophie. I will close.—Endora Kelsey, Marcelona, Mich.

## PLANTING A TEA SET

By SARA E. WILTSE  
(Copyright reserved).

**M**ORE than 50 years ago a small girl lived on a farm in Michigan. Her only dishes were the broken parts of a little china tea-set. The sugar bowl had lost its cover, the teapot spout had been broken off, and the cream pitcher had no handle. The tea cup was very friendly with the cream pitcher, for it too was with-



out a handle, and the small girl played there were two saucers, as one was in two parts! These tiny dishes were decorated with very pink flowers and delicate sprays of green leaves. Every little piece was well

washed and dried whenever the small girl and her smaller doll had a tea-party.

One day when the farmer was planting acres of potatoes the small girl watched the careful cutting of the seed-potatoes before they were put in the ground.

Feeling sure that she had mastered the lesson about potato eyes and the fall crop, she hurried to look at the parts of her beloved tea-set. She had a plot of her very own in the flower garden, and for once she was glad that her dishes were already broken, for she decided to plant them! Every part was put into its little hole and covered with a shapely hill of good earth. Her garden was hoed, weeded and watered with diligence, and when others were digging potatoes, she dug for tea-sets! She was a brave child, and when she found only the pieces she had planted, she washed and dried them, saying to herself—"Good thing the seeds didn't rot"—and nobody knew of her thwarted attempt to grow tea-sets until she was a grown woman, with a little boy who loved to hear her tell about long ago when she was a little girl. Then one day she told him the secret.

Not long afterward she had a birthday and one of her presents was a lovely little tea-set with pink flowers and sprays of green leaves. The little boy had saved his pennies until he had enough to buy the gift of which nobody but his mamma guessed the secret when he said that it was for the little girl whose tea-set never grew. She took her boy in her arms, and laughing said, "But it has grown, it has grown, my precious boy, and it is more beautiful to me than any tea-set ever made."

## OUR PUZZLE

### The Three Clowns

It is told of a circus parade in which three clowns walked; they were numbered 6, 3, 1 and a free ticket to the circus was offered to any-



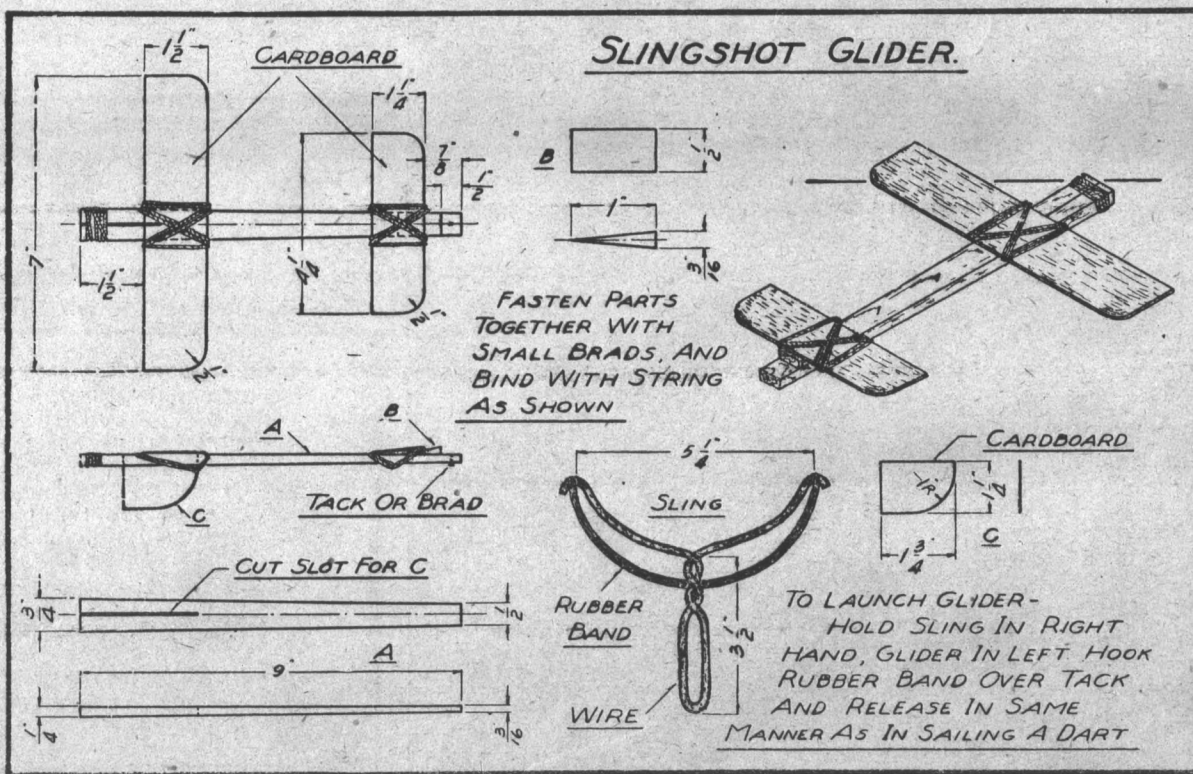
one who could so arrange them that the whole number formed would be divisible by seven. Can you arrange them?

## Ax-Golf

The old farmer was trying to impress upon his son, who wanted to play golf for exercise, that chopping wood would answer the purpose just as well. "Oh, no, father," said the boy, "it is the walking between strokes that makes golf such a valuable exercise; that gives the legs a change as well as the arms." "Oh, that's it, is it?" said the old man. And then he went into the yard and placed sticks of wood at intervals all around it. After this he handed the boy an ax and said: "Now play the full course."

Dear Laddie—This is the first time I have written to you. My father takes the M. B. F. and likes it fine. I live on a one hundred twenty acre farm. We have 11 head of cattle, six hogs, four horses, some sheep and about 50 chickens. I help my father on the farm. I have four sisters and two brothers. I am next to the oldest. I am thirteen years old and go to high school at Farwell and am in the ninth grade. My teachers are Miss King, Mr. Chappell and Mr. Oden. I like them all fine. I take four subjects. My sister Genevive is writing too. Will close, hoping to see my letter in print.—Velma Schorfield, Farwell, Mich., R. F. D. 3.

## TOYS AND USEFUL ARTICLES THAT A BOY CAN MAKE



**W**ITH all the agitation concerning the effort to conquer the air, any toy that tends to develop an interest in this matter is at once extremely useful and very interesting. The one shown herewith will appeal even to the younger boys—in fact, it is an excellent toy for the real young boy to make. And as for the older boys it is a very good toy for them to first make in starting out on any experiments along this line. We must all do the smaller things before we can hope to do successfully the larger ones. Perhaps

And then he went into the yard could accomplish tasks at the very first attempt, and yet I feel that such would not be the case.

Every boy knows what the slingshot is and also what the dart is—the kind you make from a shingle, cut a notch in it, then tie a string to a stick and after that hook the string to the notch by a knot tied in the end of the string, and then launch the dart into the air. This toy works just the same way so far as the principle is concerned.

First get out part A from a light piece of wood. You will notice that this piece tapers both ways—both in width and in thickness. The slot in the broad end must be cut carefully. A fine saw will be necessary—as near the thickness of the cardboard to be used for the wings, as it is possible to get. It is easily seen that this piece can be split very easily in sawing this slot.

Cardboard is to be used for the wings and for part C. It should be of only average weight—similar to that in the ordinary shoe box. The



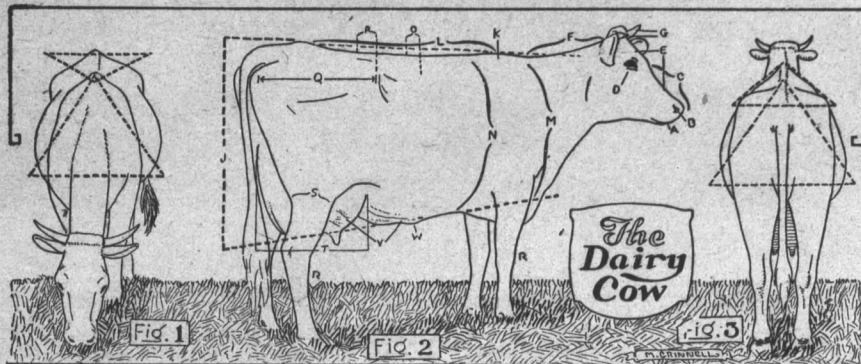
making of these parts will not be hard as they can be laid out and cut with shears. The wedge B is rather small and may bother you somewhat. This should be of wood. Very small brads should be used in fastening the parts together after which they should be bound with ordinary string as shown in the drawing.

The sling should be made next. This may be made from wire or from wood. Every boy knows how to get one from wood—the crotch from a small tree, that is, where two small branches separate. If wire is used, it should be heavy enough to withstand the strain of casting the glider. Form to the shape indicated and at-

tach a good strong rubber band.

The small wedge may seem useless to you until you happen to try to sail the glider without it. It is used to elevate the front wing which causes it to rise. No finish will be necessary. After you have successfully made one of these gliders you can then try your hand at larger things—some of which will appear later in these columns. Watch for them. Explanation is given on the drawing as to how to proceed to launch the glider. Much fun can be had by having competition among several boys to see who can sail their glider the farthest.

## HOW TO JUDGE A DAIRY COW



A—mouth, b—nostril, c and e—face, d—eye, f—neck, g—horns, k—withers, l—back, m—chest, n—heart girth, o—loins, p—hips, q—hips to pin bones, t—legs, s—thigh, u—udder, v—teats, w—milk veins, and w—milk wells.

YOU WERE promised not long ago that you would be shown some pictures which would help you to know how to judge a good dairy cow and explain a lot of things probably hazy in your minds. It is very important for a young person on a farm to know how to explain these things. Your city relatives will be asking you just such questions and you would be ashamed not to be able to answer promptly and correctly. Besides that, if you know how to size up a good or bad cow, it is going to mean money in your pockets when you grow up, and maybe right now, if you are allowed to have charge of some stock on your farm.

The breed of the cow does not matter so much so long as she is a good dairy cow, (in this article we are going to limit it to talking about the cows producing the best supply of milk.) Jerseys and Guernseys usually produce the richest milk, while Holstein, Ayrshire and Brown Swiss cows usually produce the largest amount. So there is considerable discussion as to which is the best kind. In any case, you are most likely to succeed if you choose the breed you like the best.

It does not pay to buy a cow merely because she is cheap. A poor producing cow is pretty sure to lose money for you, no matter how much care and feeding you provide. If you have to choose between buying one from two or more cows, find out the results

of the scales and the Babcock test. A good dairy cow should be well developed in many points, not merely in a few. She should have a large mouth; large, open, distended nostrils; fair length from muzzle to eyes, which should be large, bright and prominent separated by a broad, well dished face.

The ears of a good dairy cow are usually of medium size. The horns small and incurving (or otherwise agreeing with the standards of the breed). The neck should be clean-cut, long and thin. Be sure to watch for the wedge shape, which is shown in the diagrams. The withers should be pointed with the backbone refined, but prominent, often jointed and straight from the shoulders to the tail setting. There should be depth to the chest, and flat and deep ribs. The hide should be supple and the hair silky. Her thighs should be thin and well arched out. A large, highly attached udder invariably shows a big yield. The teats should be well placed, one at each corner. Also be sure to watch for the milk veins extending from the udders. It is better to choose a good cow of this sort with a blemish or two, than to choose a poor cow which may look fairly pleasing to the eye.

With these points in mind, you should talk the matter over with the folks and with others who are well posted on good dairy cows, and you will always be pretty safe in making a deal of this sort.

## MUSKRAT TRAPPING HINTS

ALTHOUGH the muskrat is considered easy to trap, many points may be of benefit to you and help to increase your catch. For the beginner it is best not to try to handle too many traps, six or eight is about the right amount. In making sets in the banks of streams muddy water will often tell if the hole is inhabited. Set the trap at the entrance and fasten the chain so the rat will not pull itself back in the hole after being caught. It does it is very difficult to get it out without spoiling the den.

If you catch a rat set again in the same place and you will likely get another. I have caught four rats in one hole. Another good set is to find mounds above the water which indicate presence of muskrats and place a trap at the foot of it about three inches under the water. A slight hit on the head will kill a muskrat so it is not necessary to pound it severely which will likely damage the pelt. Baits prove more

effective late in the season than in the early part. They should be placed so the rat will go over the trap to get it. So much natural bait in plain sight might attract the attention of people who make it a business to take other people's catch. In making shallow water sets reach your trapping ground at dark as a muskrat will chew off its leg as soon as it is light. Do not skin muskrats as soon as they are taken from the water, wait until they are dry. The hide should be taken off and stretched pelt side out. Remove the tails as they are worthless. Hides caught during warm weather should be rubbed with salt on the flesh side and shipped as soon as possible. For stretching the average muskrat, a board five and a half inches wide at the bottom and narrowing down to two inches at the top, eighteen inches long and a fourth inch thick will do. Let the hide dry a week or ten days in a dry, cool place.—*Parm. Mayer, Merrill, Mich.*

## THE ETERNAL WOMAN

(Continued from page 12)

you that interests me. Stop war! "I care not what your schemes may be; all I ask is that you do not slump back into the old plan whereby you settled your disputes periodically by a carnival of murder, burning, rape and devastation.

"I am law. I am common sense. I am democracy. I am justice. All these things are but names for me.

"I am dumb. I have no place in your parleys, no vote. But in my hands, men, is the reward you crave. In my body is the food of your highest hunger. In my soul is the golden casket that holds your dreams.

"You shall have no peace of mind, you shall have nothing but bitterness, and bloody revolutions, and the terror of night until you give me what I want.

"I am the eternal woman. And with me is the eternal God. And without us you can do nothing but evil."

FRANK CRANE

(Copyrighted, 1919)

## PLAIN VEGETABLES—DRESSED UP

It is just about this season of the year that we begin to wonder what we will have to eat to vary the menu. One of our readers reminded me of this when she wrote in last week, asking: "Why don't we have any

recipes—haven't seen any for a long time, and while we have plenty to eat, I should like some new, appetizing ways of preparing or serving it."

And so this week I am giving you a few special dishes made of ordinary fruits and vegetables such as you would have in your cellar or can very easily obtain. Some of them can be used for left overs, while some are very nice for luncheon or supper dishes.

### Turnip Balls

Cook rutabagas or turnip tender, drain, mash, season with salt, pepper butter and a little sugar, roll into small balls, dip in beaten egg, flour or bread crumbs. Fry in deep fat. With care this can be browned nicely by rolling in skillet with a little drippings.

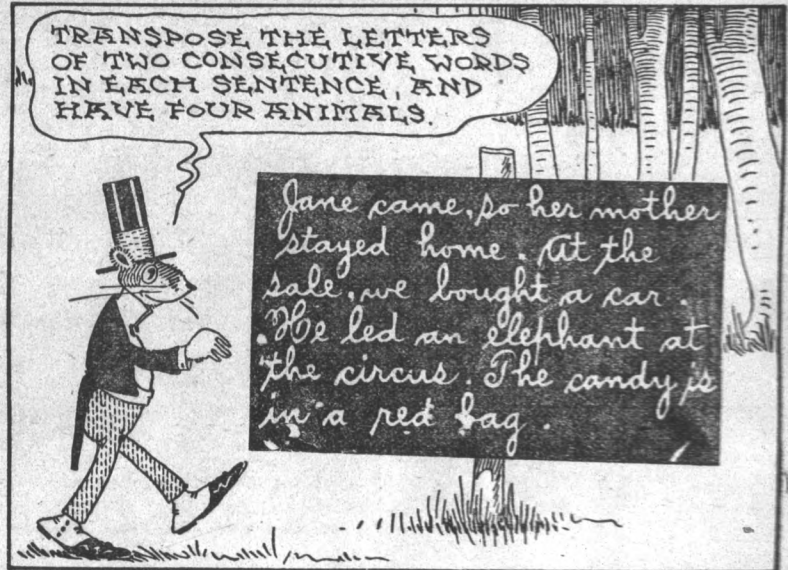
### Carrots and Peas

Select rather large carrots. Cut them off so they will be of even lengths, using the large end. Cook until tender, then with a sharp knife cut out the inner and lighter part, leaving the darker shell. Heat and season a can of peas and fill these carrot shells with the peas. This special, served on the plate direct from the kitchen, with potatoes on the half shell, makes a very attractive plate for a company dish.

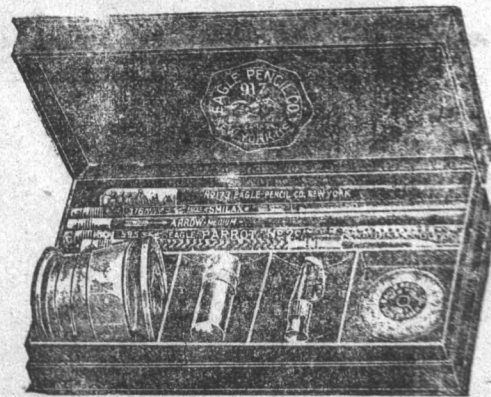
The ends and insides of the carrots thus used, can be utilized in vegetable soup.

## JUMBLED ANIMALS

BY WALTER WELLMAN



## Boys! Girls! This School Outfit YOURS for a LITTLE Extra Work



### HOW THEY DID IT

They simply called on two of their friends who were not taking Michigan Business Farming, had them look over one or two recent copies and explained just what this weekly has done and is doing for the farmers of Michigan and convinced them that they ought to be taking M. B. F. if they expected to keep abreast of the times and derive the same benefit over 70,000 farmers are now enjoying. Then they explained that they were working for a school outfit. That settled it, their friends subscribed and now the School Outfit is theirs.

### HERE'S YOUR CHANCE

All you have to do to win this outfit is to call on two of your friends who are not now taking M. B. F. and ask them to help you win the outfit by giving you their subscription to M. B. F. for one year at \$1.00 each. Send us the \$2.00 with their names and address plainly written and the outfit will be yours.

Get your Father, Mother, Big Brother or Sister to help you.

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Merrill, Michigan

**FARM SOLD****ON CONTRACT**

I would like you to answer the following questions: If A sold a farm to B and B paid one-sixth down, the balance on contract of a stated amount plus the interest annually, should B give a mortgage in connection with his note. If so could A sell the mortgage to another party? If not, would there be any way that A could get the balance other than as contract stated? Yours truly, S. A. H.

If the farm is sold on a contract there would be no mortgage and usually no note as the contract specifies the payments and time and rate of interest as well as the other terms of a contract. The record title remains in the grantor in the contract. One may sell the contract the same as he would sell a mortgage, but he would also give a deed of the farm to the purchaser of the contract, making the deed subject to the terms of the contract.—W. E. Brown, legal editor.

**USE OF SPARK INTENSIFIERS**

Does a spark intensifier on a Ford, short the coil or in any way harm the coil or magneto? What makes so many porcelain cracks in my car.—A. F. S., Saginaw County.

There is no harm in the use of a spark intensifier in the Ford coil system. Nor will it harm the magneto. I have the assurance of a prominent Ford dealer which agrees with this statement. The second part of the question regarding the cracking of spark plug porcelains is answered as follows. There is more or less vibration in a Ford motor at all speeds. There is a particular speed at which there is more vibration than at any other. On some cars this excessive vibration occurs at a rate of speed of about seventeen miles per hour. On some others it is a little higher. This would account for the tendency to break porcelains as is frequently the case in Ford cars.—E. C. Sauve, M. A. C.

**TAX ON BONDED STOCKS**

Does a person need pay special tax on full blooded stock that he keeps for the improvement of his own herd and not be a member of a Breeders' Association? Also give No. of volume Statute and page for the benefit of further investigation. Please answer in next issue if possible. Yours truly, H. A. Rae, Beaverton, Mich., R. F. D. 2.

We have your letter of December 18th, relative to a special tax on full blooded stock.

The constitution and laws of the State of Michigan require that all property shall be assessed for purpose of taxation at its true cash value; therefore the owner of full blooded stock should be required to pay taxes on the actual value of the stock, the same as on any other class of property.—Board of State Tax Commissioners, B. F. Burtless, Secretary.

**FARMERS SERVICE BUREAU**

(A Clearing Department for farmers' every day troubles. Prompt, careful attention given to all complaints or requests for information addressed to this department. We are here to serve you.)

**CONCRETE GRANARY**

I've been building a cement granary this fall and I would like to know if any of the patrons have had any experience in keeping grain in such a building as I wish or rather will have to line the bins with lumber to keep the grain away from the cement or put it right on the floor. Now, if someone that has tried this would give me some advice through the paper I would appreciate it.—W. P. H., Walkerville.

It is a very common practice to keep grains in bins having concrete floors without the use of any wooden flooring to keep the grain away from the concrete. If the floor were made of a very lean mixture, and, therefore, porous, and if it were located where the natural drainage was bad, there might be some necessity for using a wood covering but usually there is no necessity whatever for it. Neither will there be need for a wooden lining when the granary walls are made of concrete. This is proved by the fact that hundreds of concrete grain elevators are in daily use and are keeping grain in a first-class condition. All that is necessary is that the walls be made of a reasonably good quality of concrete. We might mention in this connection that practically every grain elevator of over 100,000 bushels capacity which has been built during the past six years has been of concrete.—A. J. M. Curtis, Manager Farm and Cement Products Bureau, Portland Cement Ass'n.

**INFORMATION FOR THE CENSUS**

Will you let me know why it is that in the government census the valuation of farm property is taken while the city property, that is, what is not for farm purposes, is not asked for?—M. A. Lincoln, Mich.

The census law does not provide for the census of property that is not producing something. The law says the census shall be restricted to inquiries relating to population, to agriculture, to manufacture, to forestry, and forest products, and to mines and quarries. A farm is a factory in the sense that it is producing something, whereas a city home and its surroundings is merely a place of habitation.

Questions relating to agriculture include name, color, sex, country of birth. Of occupant of each farm, tenure, acreage of farm, acreage of woodland, value of farm and improvements, and the encumbrance thereon, value of farm implements, number of live stock on farms, ranches and elsewhere, and the acreage of crops and the quantities of crops and other farm products for the year ending December 31st next preceded.

**SENSE AND NONSENSE****WILL GROW WINGS**

Mr. Butterfly—Mr. Caterpillar is not sporty these days.

Mr. Moth—No, but he will be very fly later in the season.

**Reckless Doctoring**

Doctor: "Madam, I shall have to paint your husband's throat with nitrate of silver."

Profitier's Wife: "Please use nitrate of gold, doctor. The expense is quite immaterial."

**Preparedness**

Wife—"Dear John, mother was so pleased with all those nice things you said about her in your letter to me. You see, she opened it by mistake."

Hubby—"Yes, I thought she would."

**The Awful German Language**  
Jud Tunkins says he has no objection to German music. What he frets over is the German words that go with the music.

**A Suggestion**

Perhaps the United States would accept a non-resident membership in the League of Nations.

**LIKE LOTS OF US**

Mrs. Fly—The old hypocrite, he told me he never went near that stuff!

**The Thrifty Scot**

Bix—"I wonder why a Scotchman always says 'hae' for 'have'?"

Dix—"Possibly it's on account of his thrift. He saves a 'v' every time he does it."

**Earning His Rest**

"Some officeholders are not very industrious."

"Well," explained Senator Sorghum, "after a man has been running for office he's liable to feel tired enough for a good, long rest."

**The Usual Distinction**

"Don't you admire determination in a man's character?"

"That depends. If it brings success I praise it as splendid perseverance. If a failure, I denounce it as confounded obstinacy."

**AIN'T IT THE TRUTH**

Bug—Ha, ha, I wouldn't carry my house around on my back!

Snail—would. A person's lucky to have a house these days.

ing the enumeration. Inquiry shall be made as to the quantity of land reclaimed by irrigation and drainage enterprises, and the capital invested in such enterprises.—Editor.

**COST OF WINTER FEEDING**

I have a friend who has two horses, four cows and a year-old calf and wants me to take them and let them run with my cattle. I keep my cattle in the barn every night and give them good oats, straw and all the shucked corn fodder they can eat, and salt and water. What is it worth to feed and take care of these seven head of stock a month as he wants me to keep them till grass this spring? The cows are dry and not giving milk at all. Please give me advice.—A. E. C., Saginaw County.

It is rather difficult, according to Prof. M. A. Brown, of M. A. C., if not impossible to estimate the monthly cost of handling this stock, as much will depend upon the amount of feed fed them and the condition in which they are kept. Furthermore, the amount of stalks and straw fed to them will depend a great deal on their quality. The only fair way to figure this to both parties would be to make a careful estimate of the amount of straw and stalks that these cattle and horses consume and then let the owner of the stock pay the man who is caring for them for the feed at market price. Straw with us is worth from \$10 to \$12 per ton on our local market.

This arrangement would not take into consideration the labor of caring for them which would not need to be considered if the feeds were paid for at a price such as they would demand if hauled to market as, in addition to saving the labor of hauling the feed to town, the caretaker would also have the manure left on his place.

**HOW TO FEED MOLASSES**

Could you tell me how to feed molasses? Should it be diluted and how much should be fed to horses and cattle?—Subscriber.

In using the heavy molasses usually sold for feeding purposes one should add from one to two parts of water for every portion of molasses, says Prof. A. C. Anderson, of M. A. C. Stir this thoroughly and in the case of cattle pour the material on the silage and grain or sprinkle it upon the rough feed. In using molasses for horses it is almost always sprinkled on the hay or straw. In feeding beet sugar molasses one should usually limit his feeding operations to one pint per day. Double this amount however, may be fed in the case of cane molasses. In all instances begin with small portions and gradually increase to the desired quantity.





# HIGH LIVIN'—AN' EVERTHING

Bein' granted a vacation of two weeks, over Christmas an' New Years y'know, I jest thought I'd go at it an' solve this hull dum question of high cost of living' an' some other things, that have been a puzzlin' so many of our prominent men an' women, as well as investigatin' committees, for some considerable time.

I spent sleepless days an' restful nights a lookin' round an' by keepin' my eyes open an' my mouth shut, I have, to my own satisfaction at least, learned quite a considerable. Of course, as everybody who has to buy anything knows, prices on most everything, sugar an' whiskey included, is a little high—quite high I might say—but the cost of high livin' is a darn sight higher an' right here is where the trouble—a hull lot of it anyway, comes in.

I found clerks drawin' twenty to thirty dollars a week, had to have the finest clothes made, why they think nothin' of payin' seventy-five to a hundred dollars for a suit of clothes, fifteen to eighteen dollars each for silk shirts, four dollars for a tie, fifteen dollars for a hat, fifteen to twenty dollars for a pair of shoes, two to three dollars a pair for silk socks—oh, they must dress like peacocks y'know or folks'll think they're cheap skates don'tche know. An' by jingo, their wives have to go 'em one better in matters of dress, or that hateful Mrs. So and So may be a wearin somethin'. costin' a little more an' so be entitled to turn up her little snub nose when she meets Mrs. thirty dollar a week clerk an' that wouldn't do at all don'tcha see.

Now the man who employs Mr. clerk an' who mebbe is worth, financially, considerable more than he, will manage to wiggle along on a 35 or 40 dollar suit of clothes, a \$3 hat, a \$2 or \$3 shirt, a 75c tie and shoes costin' not more'n \$6 or \$8 an' seems jest's if he looked 'bout as well dressed an' feels 'bout as comfy as his thirty dollar clerk, even if he don't happen to be wearin' silk socks an' silk shirt an' everything.

Then I go in the butcher shop—Mr. Clerk comes in an' he must have the finest cuts of meat, sirloin or porterhouse "cut thick y'know and trimmed up all slick and nice an' please wrap it up in two papers." Oh, they're particler all right, an' then in comes Mr. Employer an' he says "got a good soup bone today?" "Well send 'er up an' say jest gimme a pound or two of liver will ya? I'll take it right along because I want it for my supper y'know."

Now it's a well known fact that the cheaper cuts of meat contains the most nourishment but Mr. Clerk ain't after nourishment, he's got the money an' he wants to spend it, an' nothin' cheap about him, he's got to keep up appearances y'see an' how can he do it on soup bones or liver, huh?

In these days of high prices, the thrifty farmer is spoken of in terms of awe, an' with bated breath (or breath otherwise perfumed) our city friends will say "jest look at the ol' farmers, they're a gittin' rich an' makin' money so fast they have to come to town with a truck load of it every few days cause they ain't got room on the farm to store it an' have to bank it real often."—that's about what our friends think, whether they say it or not.

Well, take it for granted the farmers, as a whole, have saved a little money—you probably have noticed that, rich as they are thought to be, most of 'em drives a "Henry's Pride" otherwise known as "Tin Lizzies," an' seem jest about as happy as though thew wuz drivin' automobiles.

But the twenty-five dollar a week clerk don't drive no Tin Lizzie, not on your life, he wants a 44 calibre, 12 cylinder, high jumpin' car—one that'll go better'n a mile a minute when she's on low, somethin' costin' up in the thousands don'tchknow! Henry's little joy wagons are far too slow, "an' they're so cheap, an' appearances count so much an' eats into the income—an' yet these same fellers are the first to holler about

the high cost of livin' an' the high cost of everythin'.

Folks, some of 'em at least, have a certain standard of prices, below which they will not go fur fear of bein' thought cheap. To illustrate: A certain woman right here in this city had a friend who owned a pair of shoes for which she had paid \$8 in Kalamazoo. They were jest what the B. C. lady wanted, so she went down town to find some like 'em. Goin' into her favorite shoe store, she was shown some shoes that looked exactly like her friends, but they wuz only \$6 an' she must have \$8 shoes. Well the dealer bein' wise to women's way, sez "now madam, I have no shoes of that style at \$8 today but come in tomorrow afternoon an' I'll have 'em," he sez.

Soon's the lady went out he jest marked \$8 on the box, laid 'em away an' when she came back next day the shoes were ready for her an' she took 'em an' went away happy in the belief that she had her eight dollar shoes, an' the dealer was happy cause he'd pleased a good customer—but jest the same he's more convinced than ever that "there's one born every minute," "and they're gettin' more numerous every day."

I have mentioned Mr. Clerk here, but what I have said regarding Mr. and Mrs. Clerk applies to workers in general—of course there are exceptions but the fact remains that people of small incomes, comparatively speaking are in trying to keep up appearances, living beyond their means, and in always demanding high priced goods, are keeping the cost of living unreasonably high and also unnecessarily high. We could all live cheaper if we would an' be jest as happy too.—Uncle Rube.

## What the Neighbors Say:

### COST OF PRODUCTION

We will vote for any man who thoroughly understands farming and is familiar with cost of production and who will do all he can to secure for the farmers a square deal on a cost basis.

We also agree with you that it is necessary to have a large representation in the state legislature to back up a governor and be composed of men who are not afraid to act as they see best.

The virgin fertility of the soil is giving out on many of our farms and we are confronted with the necessity of using commercial fertilizers, and the steady rising prices of machinery mean higher production cost for us. It is time we were figuring what it costs us to raise a crop and get together and organize for the purpose of marketing and asking a price which will at least cover the average cost of production.

I believe it is time that we were looking up our men to represent us and single them out and that it is the duty of every farmer to get busy.—J. T., Bentley, Mich.

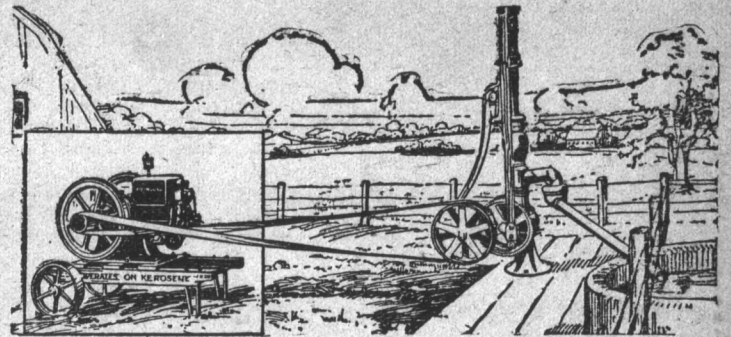
With Mr. L. Whitney Watkins and Mrs. Dora Stockman on the Board of Agriculture, we hope to see our agricultural college taking an even greater interest than in the past in the study of producing costs on the farm. There is a great deal to be done along this line, and if it is a matter that can be aided by legislation, by all means we want men who can be trusted to take the necessary steps.—Editor.

## "YOUR PAPER PRODUCING RESULTS"

Our first choice for governor is Herbert F. Baker, also we must put in some men who are in sympathy with our aims. Look the way taxes are soaring. Go to any city and every third man you meet is some petty officer living on the producer. Our legislatures, every time they meet, must find some soft jobs for their henchmen. Soon there will be no producers but all officers. Is it not time to call a halt? Your paper is producing results in the minds of the farmers of this township.—John H. Sharpe, Essererville, Mich.

You will be interested in the article on another page of this issue, "State taxes increased 1,800 per cent in 24 years." It is time to call a halt. The wealth of Michigan has increased by leaps and bounds the past ten years, and we see no sound economic reason why the rate of taxation should have likewise increased. It is a subject which M. B. F. has been giving some study to and hopes to find both the reason and the remedy for the appalling high taxes.—Editor.

## The Farm Drudge " Handyman " Chore Boy " Burden Bearer



THESE nicknames and others are frequently attached to the good kerosene engine of which we sing the praises. But, since it is a very serious and practical prose song, the engine shall here be called strictly by its proper name—International.

International Kerosene Engines are annually doing millions of hours of work: Annually taking the menial, toilsome, everyday farm jobs—pumping, sawing, separator turning, washing, grinding, shelling, etc.—off the lame shoulders of grateful men, women and children the nation over: Annually adding to the service that makes farm leisure possible and farm life more than ever worth while.

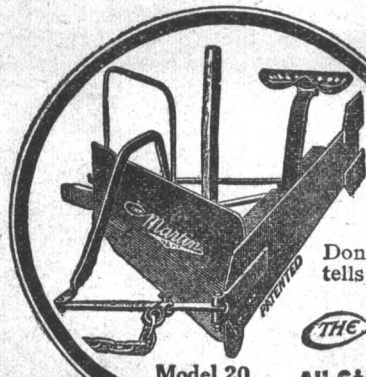
International quality in general and International Kerosene Engine quality in particular are everywhere admitted and admired. These engines are reliable, simple, long-lasting and economical. Among the sizes—1½, 3, 6, and 10—is your correct size. See the International dealer.

## INTERNATIONAL HARVESTER COMPANY

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## DRAINAGE PROBLEM SOLVED

FOR the first time American farmers can solve the drainage problem at low cost. Find out about this tool. Don't put it off. Write for the new book that tells the story.

## THE Martin Ditcher & Grader

Model 20

All-Steel—Reversible—Lasts a Lifetime

Cuts V-shaped farm ditch down to 4 ft. deep; cleans old ditches; grades roads; builds farm terraces, dykes and levees; works in any soil, wet or dry. 2, 4 and 6 horse sizes; large size fine for tractor. Does work of 100 men. Write and find out how to make big crops sure. New free book on drainage, irrigation and terracing. Address

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The healthy, heavily rooted kind of Strawberry Plants produced on Baldwin's Big Berry Plant Farms give largest measure of satisfaction. Grown on New Ground. Start quickly. Yield bountifully. Pay large profits. Plants always true to name. Freshly dug. Properly packed to reach our customers in good growing condition. Write for our Berry Book, a splendid Fruit Growers Guide. Do it now.  
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Save money on Timothy, Clover, Mixed Alfalfa and Timothy, Rape, Sweet Clover, Seed Corn, Berley, Millet and other field and garden seeds by ordering from the Adams Seed Company. Our big plant sends out highest-quality seeds at real bargain prices.

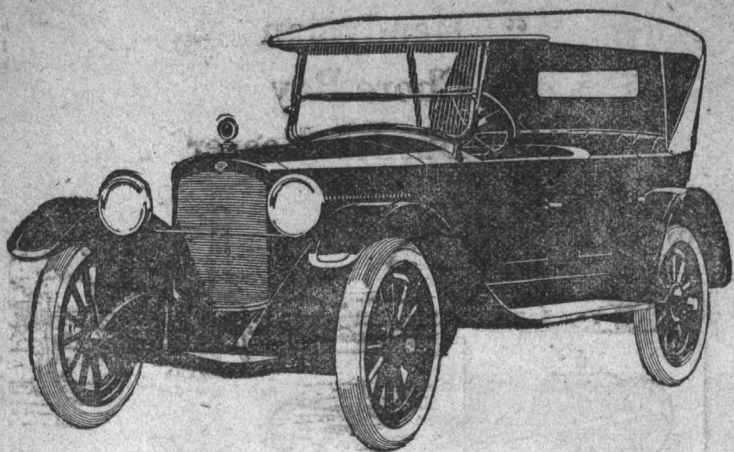
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## POWER and PERFORMANCE



## GRANT SIX

Most cars perform well on the level. The test of power is what a car will do on a long, tedious hill climb. That is where reserve power counts and that is where you feel a keen sense of delight if you drive a Grant Six, for this car has power in reserve; more power perhaps than is necessary for ordinary driving—but it is just that EXTRA POWER that makes the Grant Six show so remarkably well on hills.

The Grant Six overhead valve motor takes this car as fast as most men dare to drive. Its flexibility is so marked as to excite comment. It is quick on the getaway and it will slow down to a walk with a steady, even, vibrationless pull.

It is no secret that through the use of both annular and roller bearings, by the use of highest grade universal joints, and by the most effective lubrication of all working parts, Grant Six power losses through friction are practically nothing. It is this fact, in connection with its light weight, that makes possible its very satisfactory performance under all conditions.

Four body styles to choose from—Five passenger Touring Car; Three passenger Touring Roadster; Five passenger Sedan; Four passenger Coupe.

Write for new illustrated catalogue and name of Grant Six dealer in your community.

**GRANT MOTOR CAR CORPORATION**  
CLEVELAND, OHIO

# COUNTY CROP REPORTS

**GENESEE**—Farmers are filling their ice-houses, working up wood; a few are husking corn and several are doing teaming. The weather is milder and we have had a light snow. The soil is frozen quite deep. Farmers are selling some potatoes, hay and live stock. Auction sales are still quite plentiful and prices received are good, although not as high as last fall. The farmers are going to take an active part in politics from now on, and will stand solidly behind Milo Campbell, as the farmers' candidate for governor.—C. W. S. The following prices were paid at Flint:—Wheat: Spring, \$2.50; red, \$2.40; white, \$2.38; corn, \$1.40; oats, 91; rye, \$1.65; hay, No. 1 timothy, \$24 to \$27; No. 1 light mixed, \$21 to \$24; beans pea, \$6.75; red kidney \$11; potatoes, \$2 to \$2.25; onions, \$6.50; cabbage, \$5 bbl.; cucumbers, \$2.50 doz.; hens, 24; springers, 24; ducks, 32; geese, 28; turkeys, 40 butter; creamery, 70 to 73; dairy, 68 to 72; eggs, 75 to 78; sheep, \$7 to \$8; lambs \$10 to \$11; hogs, \$14.50 to \$14.60; beef steers, \$8 to \$9; beef cows, \$6 to \$7.50; veal calves, 18 to 19; apples, \$2.50 to \$3.50.

**JACKSON, (E.)**—The farmers are not selling much of anything. They are holding their rye for a higher price. The weather has been very good this winter. We had a heavy snow storm the 8th of January. Farmers are not building. Taxes too high. One farmer did start to build a barn this winter 40x70 feet and a cyclone blew it down before it was finished, killing one man.—B. T. The following prices were paid at Jackson:—Wheat, \$2.30; oats, 85; rye, \$1.70; beans \$6.50; hay, \$26; rye-straw, \$11; wheat-straw, \$11; oat-straw, \$11; potatoes, \$2; hens, 23c; springers, 23; butter, 64; butterfat, 70; eggs, 75; beef steers, 10; beef cows, 7; veal calves, 18; sheep, 9; lambs 18; hogs, 12 1-4.

**MANISTEE, (N.)**—Not much doing in these parts; a few potatoes going to market, a few hogs and chickens also, but that is all. The weather is rough and some snow. The ground is frozen. Some farmers are trying to log a little. Some are hauling gravel but not much doing as the roads are either bare or drifted.—C. H. S. The following prices were paid at Bear Lake:—Wheat, \$2; corn, \$1.40; oats, 90; rye, \$1.25; hay, No. 1 timothy, 35; No. 1 light mixed, 32; straw-rye, 10; wheat-oat, 12; beans, Pea, \$6; red kidney, \$10.50; potatoes, \$2.50; hens, 20; springers, 20; butter, 55; butterfat, 63; eggs, 55; hogs, 12; beef steers, 7; beef cows, 5.

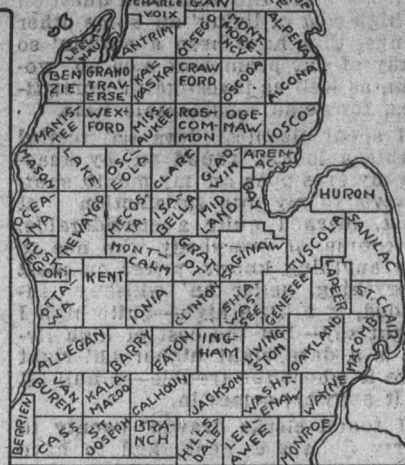
**CHARLEVOIX, (S. W.)**—Farmers are shoveling snow and building fires. This is the third day of the worst storm of the winter. The local market is dull. Eggs are up a little, also potatoes; other stuff about as before. The farmers show a disposition to hold beans, but they are dull. A good many farmers are selling a few hogs.—C. M. The following prices were offered at East Jordan:—Wheat, \$2.10 to \$2.08; corn, \$1.40; rye, \$1.14; hay, \$28 to \$30; straw-rye, \$15; wheat-oat, \$15; beans, \$6.70; potatoes, \$2.50 to \$2.60; onions, 50 lb.; hens, 22; springers, 25; butter, 65; butterfat, 67; eggs, 70; hogs, 12; beef steers, 5 to 6; beef cows, 4 to 7; apples, \$2.

**WEXFORD**—Roads are drifted badly in some places; impossible to get thru in some of the cuts, and still more snow coming. If it keeps on and we don't get a thaw this month which we generally do, we will have some snow by spring.—S. H. S. The following prices were paid at Cadillac:—Wheat, \$2.20 to \$2.25; corn, shelled, \$1.40; oats, 85; rye, \$1.50; hay, No. 1 timothy, \$30; potatoes, \$3 cwt cabbage, 2c; hens, 19 to 21; springers, 19 to 21; ducks, 20 to 23; geese, 17 to 20; turkeys, 28 to 30; butterfat, 65; eggs, 55; hogs, 10 to 18; veal calves, 18 to 22.

**MANISTEE, (N.)**—Farmers are not very busy at present. The snow is too deep to do much but cut and haul wood and hay, and feed and do chores. Weather cold and snowy. Farmers are not selling much unless it is rye. Auction sales are being held at various parts of the country. I think the farmers are holding most of their beans and potatoes for higher prices. Farmers are buying a good deal at the auction sales. Too cold to do much building.—H. A. The following prices were paid at Bear Lake:—Butter, 55; eggs, 55; butterfat, 63; potatoes, \$2.80; Navy beans, \$6.

**CALHOUN, (N.)**—Very little being done by farmers, mostly chores. It is very cold here. The roads are good with just a little snow. The ground is frozen hard. Very little grain being marketed, at the most was sold earlier in the season. It doesn't seem as if as much stock was being fed as usual this winter.—G. R. The following prices were paid at Olivet:—Wheat, \$2.43; oats, 80; rye, \$1.70; hay, \$25; straw-rye, \$8.50; beans picking stock, \$6.50; potatoes, \$1.50; hens 21; butterfat, 65; eggs, 60; lambs, 16; hogs, \$13.50; beef steers, 8.

**ARENAC, (E.)**—Sixteen below and then some; it makes a fellow wonder where he has been all summer. Hay balers busy and buying at fair prices. Beans declined 10c owl last week. Farmers are doing chores and getting up wood. Nothing of importance at this report.—M. E. R. The following prices were paid at Twining:—hay, 20 loose; beans, \$6.40; hens, 16 to 18; springers, 15 to 22; butterfat, 63.



**HURON, (N. W.)**—The following prices were paid at Caseville:—Wheat, \$2.25; oats, 68; hay, No. 1 timothy, 25; No. 1 light mixed, 23; beans, \$6.75; potatoes, \$1.25; onions, 8; hens, 14; springers, 17; cks, 32; geese, 27; butter, 56; butterfat, 63; eggs, 68; hogs, 12; beef steers, 9; beef cows, 7; veal calves, 14; apples, 2.50.—C. G.

**GRAND TRAVERSE**—Not much doing these days. Snow is so deep it is hard work to get around. Two days last week we did not get any mail as the roads were so bad.—C. L. B. The following prices were paid at Williamsburg:—Wheat, \$2.15; corn, \$1.40; oats, 80; rye, \$1.50; beans, \$3.00; potatoes, \$2.70 to \$2.75; butter, 68; butterfat, 68; eggs, 60; veal calves, 18.

## SUPREME COURT DECISION IN POSTAL USURY CASE

(Continued from page 11)

of the parties under our view of the case is unimportant. The statute, C. L. 1915, Sec. 5998 provides:

"No bond, bill, note, contract or assurance, made or given for or upon a consideration or contract, whereby or whereon, a greater rate of interest has been, directly or indirectly, reserved, taken or received, than is allowed by law, shall be thereby rendered void; but in any action brought by any person on such usurious contract, or assurance, except as is provided in the following section, if it shall appear that a greater rate of interest has been directly or indirectly, reserved, taken or received, than is allowed by law, the defendant shall not be compelled to pay any interest thereon."

"The mortgage and notes provided for seven percent interest, (the highest legal rate) and the notes included the ten percent additional. There is no claim made that more than \$1,231.39 was paid out by Mrs. Postal and it is admitted that she received notes aggregating \$1,359.42, payable to herself. The words of the statute are plain:

"If it shall appear that a greater rate of interest has been reserved, taken or received, than is allowed by law, the defendant, shall not be compelled to pay any interest thereon."

Whether Mrs. Postal or her husband received the avails of the ten per cent commission or bonus would seem unimportant. It certainly was reserved to her in the written instruments constituting the evidence of the transaction. In the course of his evidence James R. Postal testified that in negotiating the deal with defendant he was acting as agent for his wife. It should perhaps be noted that the Plaintiff does not claim to be a holder for value without notice but admits that he takes the security with such infirmities if any as would have attached thereto in the hands of the original holder.

The decree is affirmed.

## Michigan Co-Ops Enter Ohio Field

The Gleaner Clearing House Association of Michigan, has purchased the elevator and store at Lockwood, Ohio, and is already doing business. The elevator is one of the best equipped in this state, having the latest improved machinery and in addition a mammoth steel coal elevator and loading device. The property purchased includes a store, which will handle all farm supplies. The Farmers in this vicinity are very enthusiastic and subscribed thirty-two thousand dollars in stock.

## GET Your Cream Separator NOW!

**ONLY \$2 Down A Year to Pay**  
on This Easy, Self-Earning Plan!  
You won't feel the cost at all. The machine itself will save its own cost and more before you pay. We ship any size separator you need direct from our factory and give you a whole year to pay our low price of \$38 and up. Read what Alfred Geatches, North Jackson, O., says: "We are getting more than twice the cream we were before. The separator is very easy to clean and runs very easy." Why not get a fully guaranteed New Butterfly Separator for your farm and let it earn its cost by what it saves?

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## Investigations of Moisture in Soils

(Continued from last week)

**B**URR at Nebraska determined distance and rate of water transfer above water table in loam soil cropped to alfalfa. Water level ranged from 17 to 21 feet from the surface depending upon the flow in the river two and one-half miles distant.

**Effect of Capillarity on Soil Moisture**  
Alfalfa on bench land. Per cent water in soil.

Depth feet	Jan 20 1911	Jan 29 1911	Apr 22 1912
1	10.5	8.5	21.0
4	8.7	8.7	8.4
8	9.0	9.1	9.0
9	11.1	9.1	10.1
12	13.0	9.6	12.7
14	19.3	17.2	21.3
15	24.6	21.0	24.8

Each foot of soil was sampled to a depth of fifteen feet from the surface and the water content determined on March 20, June 14, 1911 and also on April 22, 1912. This, of course, shows the distance from the free water that capillary action took place as well as indicating its rate and in addition the depth to which the old alfalfa plants removed water in the loam soil. The investigator makes these comments on the results presented.

"The table shows that during the winter months when the alfalfa is not using the water, there is an increase in the moisture content of the soil from the sheet water to the ninth foot from the surface. The table shows a fluctuation in the water content of the first three feet of soil, due to water from rains or snow on the surface. Practically no change is found in the water content of the next five feet. No water has passed thru this to increase the content below. The lowest section obtained, the fifteenth foot, being closest to sheet water, is most nearly saturated. The amount of water in each section above this diminishes until we reach a point where capillary action is equalized by the force of gravity and the upward movement of water stops. During the summer the crops use this water. The fifteenth foot is, however, close enough to the sheet water so that there is a constant supply rising within the soil zone occupied by the lower roots of the alfalfa. It should be remembered that this rise of water into the lower levels shown in Table 29 is due to the presence of sheet water on a few feet below, so that the upward rise of water in this soil does not in any way diminish the per cent of water in the soil immediately below it and that this action would cease very soon after the free water was exhausted. The soil in this field has not been dried in any section as dry as the same section in the alfalfa field on

the table land. The plants seem to find it easier to raise the water from below than to take more from the soil in the intermediate sections. During the year 1910 and 1911 a field of alfalfa on the table land died for lack of moisture. The alfalfa was seeded in 1902 and was well established in the soil. During the same years the alfalfa on the bench not only lived through but produced almost normal crops of hay."

In view of the fact that film movement is quite local in soils, that is, where the water table is several feet below the surface, the depth of root penetration of the crops is one of extremely great importance in the utilization of moisture in the deeper layers of soil.

We have found that temperature plays a very important part in regulating the film movement of water in the soil. In fact it may conserve water in the soil. Many maintain that tillage operations to conserve moisture other than by the eradication of weeds is of little value, in other words the mulching of soils by cultivation is not necessary. The effect of temperature probably accounts for the results reported by several investigators. If a warm, dry layer of soil overlies a cool, moist one there cannot be any movement of capillary or film water upward inasmuch as the attractive power of the soil decreases with a rise in temperature but increases as it is lowered; moreover, the fluidity of the water is decreased with the lowering of the temperature. We have shown by many tests that no movement of water takes place when we have conditions with respect to soil temperatures as above outlined. Now under field conditions, as earlier stated in this contribution, during the day the temperature of the surface soil becomes appreciably warmer than the lower layers and thus water movement does not take place. At night however, the temperature of the soil reverses itself and it is possible that a slight upward movement of water takes place. This would be lost from the surface by evaporation during the following day, however. This is of utmost importance and will be discussed more fully subsequently.

### Movement of Water Vapor

The translocation of water in the form of vapor is appreciable in the surface layers. The loss of water that takes place from the soil after a dry layer is formed on the surface must be accounted for as vapor movements thru the interstices of the soil. Of course, this is confined mainly to the regions of soil that have a rather wide daily range of temperature. Soils in which cracks form lose considerable moisture in this manner.

## Hampshire Hogs Score at International

**D**URING the past year the progress of the Hampshire Breed of hogs has been one of the most sensational ever enjoyed by any breed of hogs in any year. Over 100,000 pedigrees have been printed in herd book form. The Record Association has paid all of these printing bills under abnormal prices, yet the Association is about \$5,000 better off than it was at the beginning of 1919, notwithstanding the fact that slightly over \$11,100 was paid out in special premium money during the year.

At the recent Chicago International the Hampshires in the pen classes were much more numerous, larger and of more perfect form than was ever shown before. In the carload

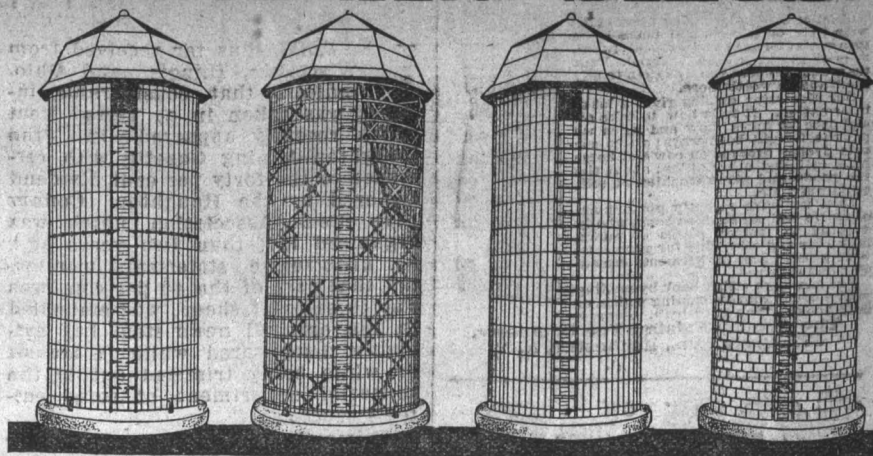
classes they won two out of three firsts and all the Grand Champions in the carload lots and then outsold any and all breeds for the single car or for average of all cars in the exhibit.

The single car of Hampshires sold for \$20.50. The average selling price was \$19.08. The average price of the Durocs was \$16.13; the average selling price of the Polands was \$16.13; the average of the Chester Whites, \$17.13. There was only one car of Berkshires, those being heavy weights and sold for \$19, yet the average of the Hampshire was above the tip top, realized for any other car \$1.50 above the price of any other car at the International. —E. C. Stone.



THESE Hampshire hogs made a great show at Chicago. They won highest average pig price record.

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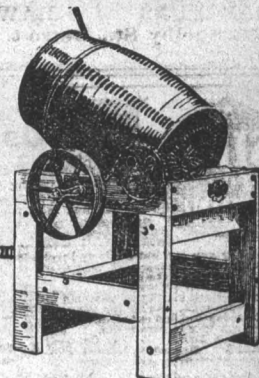
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# Sheep in Houghton County on the Share Plan

By LEO M. GEISMAR, County Agricultural Agent

LETTERS thus far received from Wisconsin, Illinois and Ohio, indicate that considerable interest was taken in a news item which recently appeared in the Houghton Mining Gazette with reference to the forty per cent dividend declared by the Houghton County Live Stock Association which was organized less than two years ago. An unobtrusive statement, mentioning that part of the 40 per cent was due to sales of sheep, was embodied in the original news item but evidently disappeared while in transit or while being trimmed out in the tonsorial department of some editor's sanctum.

Primarily the Houghton County Live Stock Association came into existence as a war measure. Food production at that time was being increased beyond anyone's expectation, the women of the country doing far more than "their bit." The wheat crop was increased by more than four hundred per cent and the mining companies led the way by giving free use of vast tracts of land which they first fenced, plowed and harrowed, thus helping to increase

a potato crop of which for the first time in the history of the country was not only sufficient for local needs but left a surplus of over 20,000 bushels which were shipped out. When first approached with the suggestion that mutten and wool being important war necessities, sheep might prove a good investment when furnished to farmers who were financially unable to secure them, one of the leading business men answered: "Never mind the investment put me down for a couple of hundred dollars and if I never see it again it will have been worth far more than that if it helped provide extra meals and blankets for the boys over there." This spirit prevailed to a large extent until after the Live Stock Association was organized and when the number of needy farmers proved to be greater than anticipated, the First National Bank of Hancock offered to supply the necessary funds to all farmers who were willing to buy the sheep on time.

Sheep were therefore supplied to all farmers who could be induced to keep some and among these were a few who offered to pay cash, while quite a number accepted the offer to give notes payable in from six to twenty-four months. Those who preferred taking the sheep on shares from the Live Stock Association entered into a contract which has unique features from an economical standpoint and is calculated to provide a stimulant for better co-operation and for the general improvement of live stock.

All of the sheep on shares were placed with farmers who formerly worked in the mines and after saving up a few hundred dollars bought some cut-over land which they are gradually developing into farms. Originally they came from Northern Europe where they handled a few sheep, using methods generally unknown in American sheep husbandry, such as shearing sheep two or three times a year, breeding without regard to the time when lambs would be dropped, cutting brush during the fore part of the summer and storing it for winter food and carding and spinning the wool and knitting it into various garments. No attempt was made to "educate" these farmers in American methods. It was deemed more advisable to remember that education is the summed of experience of great numbers and that even he who knows it all may still be young enough to learn from others and often from those he least expects it. Nor was there any provision insert-

ed in the contracts to guard against the dog nuisance, even though it is well known that a poor man keeps one dog, a very poor man keeps two dogs and a dam poor man keeps three dogs. Care was taken however to place the sheep only with those who would agree to fence off with woven wire five to ten acres of cut-over land for sheep pasture and as most of them were unable to pay cash for the fencing, arrangements were made with one of the local hardware firms to sell it to them on time. The object in placing these sheep on cut-over land pastures of partly developed farms was to enable the farmers to find out that sheep will do most of the land clearing and pay for doing the work.

The best high grade yearling ewes obtainable were secured and placed on these farms early in the spring, while during the fall pure bred rams of the same breed were furnished at the rate of one for every 15 to 20 ewes, the several groups of farmers agreeing among themselves as to who would take care of the rams, the others paying the custodians a fee sufficient to pay for the feed and



John Kaake, of Peck, Sanilac County, has sent in the above picture of his splendid three-year-old sheep with her four lambs. The lambs were only four months old when picture was taken.

care. The contract specifies that the rams are to be exchanged each year among the several groups of farmers in order to prevent inbreeding, and as the contract runs for five years, one of its clauses provides for the castrating of all ram lambs during the first four years, thus enabling the farmers to raise practically pure bred rams during the fifth year. Those clauses should enable the farmers to appreciate that co-operation is the keystone of successful farming; that inbreeding is to be avoided, that one breed within a community is more profitable than several, and that pure bred stock held co-operatively is cheaper than scrubs kept individually.

The contract provides that sheep not properly cared for may be taken away without giving previous notice and the farmer held for damages equal to the difference between the original value and the appraised value when taken away. Being a case of learning as much as one of educating, this was considered more advisable than attempt to condemn old world practices in shearing oftener than once a year, breeding at any time or using brush as winter food. Whether these practices are to be condemned is still an open question, judging from results obtained up to the present time.

The sheep have passed through one winter and came out in fair to excellent condition, while the ewes had their first lambs last spring. Sheep sheared twice a year yielded an average of ten pounds per fleece, while those sheared once yielded an average of 8 1-2 lbs. As all of the wool was used locally, the actual market value of the shorter wool could not be ascertained, nor whether it had a sufficiently lower value to offset the one and a half pounds extra yield and the additional labor in shearing.

Brush cut by several of the farmers while clearing land during the fore part of the summer and cured in small bundles for winter feed was relished by the sheep in all cases. When given to them while being fed on mixed hay, the sheep invariably left the hay and began eating the brush.

Sheep sheared once a year gave a lamb crop averaging 85 per cent while those sheared twice averaged 43.6 per cent. This great difference would condemn the practice of frequent shearing, were it not that the highest percentage, or 133 per cent was obtained by one farmer whose ewes were sheared twice and dropped their lambs in February. In a larger flock not kept on shares and handled in a like manner the increase was 88 per cent, the lambs being dropped in January and February.

The amount of brush destroyed by the sheep on the fence areas of cut over land after the two season of pasturing, varies according to the original condition of the areas. The largest amount was destroyed where the brush was low enough to enable the sheep to reach the tops, and the least amount where the brush consisted mostly of tall saplings, where the fenced areas consisted of brush and stump land, less brush was destroyed, the sheep during the latter part of the season preferring the clover and grass growing among the stumps but giving preference to

brush during the fore part of the season. At a very conservative valuation, the saving in the cost of clearing the land on the fenced used for sheep pasture during the two seasons, represents an average of \$2.50 per acre when comparing these areas with adjoining unfenced brush land.

As above stated the contract provides for keeping the sheep five years after which they, or an equal number, are to be returned to the Live Stock Association, the farmer meanwhile turning over one half of the wool and one half of the lambs to the Association. In order to give an inducement to the farmers to retain all of the wool and the lambs, they are given an option to pay cash based on prices which are calculated to be below actual market values. Thus with a market value of 65 to 72 cents a pound for wool last year and 55 to 60 cents this year, the price agreed upon is 50 cents, then 40 cents, during the third year; 35 cents during the fourth and 30 cents the fifth year. Likewise, the price of lambs, when ready for market during late fall, ranges from \$10 the first year, down to \$6 during the fifth year. While the ewes cost \$18.50 and the rams \$38.50, the farmers are also given the option to keep them at the end of the fifth year by paying \$10 a head for them.

Since placed on shares, some of the sheep have been sold by the Association on account of having been returned by farmers who sold out and by others who wished to reduce the size of their flocks. Those sales of course account in a great measure for the forty per cent dividend paid to the stockholders this year.

### LONG HARD WINTER

#### SAY THE PROPHETS

That the present winter is to be a "long, hard one" is the prediction which is coming from many quarters and sources, says the *Arenac County News*.

Men who judge the future weather by the habits and preparations of the wild animals, seen unanimous in predicting that this winter will be one of unusual severity.

Hunters and trappers in the northern peninsula declare that one sign which never fails is now present. That is the traveling of wolves in large packs instead of singly or in small numbers. Extra fur on fur bearers and other wood signs point the same way, say woodsmen.



# The Need of Sulphur as Fertilizer

By MYRON A. COBB

"HISTORY tends to repeat itself." "There is nothing new under the sun," apply to agriculture as well as to other activities. The recent movement to apply land plaster to the soil is a repetition of what was done a generation or so ago. However, the explanation of its value is different. Chemists of the early day explained its action as a soil stimulant. The modern chemist adds the thought that land plaster supplies sulphur, a necessary plant ingredient.

Sulphur will likely be a constituent future of fertilizers. Nitrogen, phosphoric acid and sulphur or nitrogen, phosphoric acid, potash, and sulphur will be the fertilizer components. Recent fact indicates that plants demand sulphur in considerable amounts and that soils are deficient, or becoming so, in sulphur. The need for adding sulphur to the soil is probably as great as that of adding phosphoric acid.

"How does it happen that we have not known these facts before?" is a natural question. The answer is easy. In the older method of analyzing plants for the amount of sulphur the plant was burned and the sulphur content of the ash determined. This shows a low per cent and the conclusion was there was an ample supply in the soil. However in heating the plant, the volatile sulphur is driven off and this must be determined and added to the amount in the ashes to determine the total amount used by the plant. Total determination of sulphur shows that some plants contain 100 times as much volatile sulphur as that found in the ash. Corn and wheat contain 40 times as much volatile as fixed sulphur. The volatile sulphur can be easily noticed in the burning of coal, a product produced by plant life. These facts may make a decided change in our fertilizer formulas.

Sulphur exists in plants principally as sulphates, in protein and in some oils. Perhaps the most necessary form is protein, the most valuable constituent of plant and animal life. Some proteins contain over 2 per cent of sulphur.

The housewife is familiar with the effects of protein from plants and animals in tarnishing silver. This most noticeable from cabbages, eggs, turnips, and onions, these contain a high per cent of volatile sulphur. Another product containing sulphur is wool, about 1-2 of 1 per cent. A 100 lb. fleece would contain 1-2 lbs. of sulphur. Ordinarily this is obtained from the feed. Perhaps the custom of adding sulphur to salt is of more than medicinal value.

Here is a list of plants and the amounts of sulphur and phosphorus they remove per acre of average crop.

Barley .....	6.1	9
Oats .....	8.0	8.4
Corn .....	3.8	7.9
Meadow hay .....	5.7	5.3
Clover hay .....	9.4	10.9
Beans .....	9.3	12.7
Turnips .....	17.8	9.9
Cabbages .....	32.9	25.3

From the table we notice that legumes, turnips and cabbages use the most sulphur. The latter are members of the mustard family, whose members require a large amount of sulphur. Other members are radishes and mustards. It is also noticeable that the demand for sulphur is similar to the demand for phosphorus. For some time we have realized the demand of plants for phosphorus and the lack of this element in the soil. It is now evident that we must consider the demand for sulphur.

"How much sulphur is there in the soil?" is the next question. Here is the analysis of soil by one of the experiment stations:

Sulphate: sand, .055 per cent, 1, 650 lbs.; clay, .075 per cent, 2,250 lbs. Phosphoric acid: sand, .087 per cent, 2,660; clay, .141 per cent, 4,230.

The last figures are in pounds per acre foot of soil.

Taking into consideration the demand for sulphur and phosphorus by

plants and the shortage, it is evident that both must be added for best results.

There are several sources of sulphur. The air contains it in the form of a gas, sulphur dioxide, produced by the burning of coal and wood. This gas is washed to the soil by rains and may become available for plant use. From 5 to 18 lbs. are added per acre from this source. It is evident that there would be more sulphur in the air during the winter and near the large cities, if it were not for the losses by washing, this source might be sufficient for plant use. Another source of sulphur is from acid phosphate which contains sulphur as calcium sulphate. There is a question as to how much of the benefit from the adding of acid phosphate comes from the phosphorus or the sulphur.

Michigan is fortunate in having beds in gypsum or land plaster; Michigan contains sulphur near Grand Rapids. In the past the farmer used land plaster freely on the soils. No doubt that a part of its value is due to the sulphur. Its probable value was also due to the action on the soil in liberating plant food, hence it became known as a soil stimulant. This, however, is another story.

Ammonium sulphate, a product of the gas industry is used in fertilizer because of its nitrogen but it contains sulphur. Sulphate of potash is another fertilizer, used because of the potash, containing sulphur. The direct addition of sulphur in the form of a powder to the soil much as you would apply lime, is a source used in the west. About 100 lbs. per acre is used. Two counties in Oregon used 300,000 tons in 1916 largely on the alfalfa fields. The following yields were found: powdered sulphur to soil gave 5,378 lbs. of hay, gypsum, 2,645 lbs., checks 2,176 lbs. The sulphur increasing the yield more than twice.

Another source of sulphur is in barnyard manure and organic matter. The addition of manure replaces sulphur as well as nitrogen, phosphoric acid, and potash. The combined sulphur of protein and organic matter is disintegrated much the same as is combined nitrogen. The sulphur is oxidized or changed to a sulphate when it is of use to a plant. This process is called sulphurification, a jaw breaking word. The change is similar to nitrification which is the disintegration of protein and the changing to nitrates which are of value to plants. Both reactions are brought about by bacteria of the soil.

This article has given the reader only a part of the story of the relationship of sulphur to life; there is much to be learned, the curtain is lifted and it is up to chemistry and practical experiments to put matters on a firm foundation. Perhaps our forefathers were "wiser than they knew" in adding land plaster to the soil.

## FARMERS LEAD WITH TRUCKS

That the proposed expenditures in the United States for the next year for hard-surfaced highways will be \$633,000,000 as compared with the \$125,000,000 expenditures of the closing year for the same purpose, means more to the farmers of this country than nearly any other class. Nearly 60 per cent of the trucks of the United States work in the country, though a large percentage of them may be housed in the city. About 20 per cent of them are actually owned by farmers, which represents 10,000 more than are used by any other class of producers. The manufacturer who come next in line in the use of trucks.

This means that more roadways, the forerunner of the truck and civilization, will enable them to use the trucks for transporting greater variety of commodities with a consequent saving of money and time, says M. L. Pulcher, general manager of the Federal Motor Co.

"The possibilities of the truck for carrying commodities between farms and cities have only been touched. The newer and better roads will give the impetus needed to bring out all its possibilities," says Mr. Pulcher.

## Feed for a Bigger Herd

The size of your herd is not limited by the number of acres on your farm but largely by the amount of feed that those acres produce. You can carry more live stock by growing more feed to the acre. The right fertilizers produce more feed, which increases the manure supply to be returned to the land and increase its crop-producing power.

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**160-ACRE MICHIGAN FARM, STOCK.** Tools, Crops, \$6,000. On country road, near RR town. Tillage shows fine crop records; wire-fenced pasture for 25 cows, convenient creamery, milk station, wood, fruit. Good 8-room house, big barn, granary, corn, poultry, hog, machinery houses. Income under aged own last year doing but little was \$2,160; to retire, he will include to quick buyer Holstein bull, 14 cows, 4 yearlings, 6 calves, pair horses, lot hogs, poultry, separator, blinder, complete machinery, tools, crops everything goes for \$6,000, only \$2,000 down needed. Details page 83 Strout's Catalog Farm Bargains 23 states; copy free. E. A. STROUT FARM AGENCY, 814 BE, Ford Bldg., Detroit.

**STOCK FARM, 240 ACRES. MOSTLY** river bottom land well watered. Ninety acres cleared, rest good pasture. Located in Isabella Co. Will sell on easy terms. For further information write, F. H. Rueggesser, Lake, Mich.

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**WANTED—MARRIED MAN FOR GENERAL** farm work by the year. Can furnish tenant house, milk, garden and driving horse. State wages wanted and all particulars. Box 177, Cass City, Mich.

**160 ACRE FARM FOR SALE. 125 ACRE** clear, the rest in pasture. Good location, one mile from town on gravel road. Good buildings, flowing well, good fence, fine clay loam, 3-4 mile from school. L. F. LENTNER, R2, Turner, Mich.

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**FOR SALE—40 ACRES GOOD LAND,** buildings and orchard. 3-1.2 miles to railroad. A bargain. W. J. BROWER, R3, LeRoy, Mich.

**FARMS FOR SALE—BIG LIST OF FARMS** for sale by the owners, giving his name, location of farm, description, price and terms. Strictly mutual and co-operative between the buyer and seller and conducted for our members. CLEARING HOUSE ASS'N, Land Dept., Palmer and Woodward Aves.

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**I HAVE 380 ACRES OF LAND IN MISSAU-** kee county for sale. Good stock ranch or mixed farming. THOMAS WHITE, Marlon, Mich.

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**WANTED TO BUY, 2 THOROUGHbred** Toulouse geese. W. G. JENNINGS, R3, Standish, Mich.

**BUILDERS' PRODUCTS CO., 14 PASADENA** Ave., Detroit. Wholesale to consumers—Paints, Varnish, Spraying Materials, Sprayers. Manual mailed free. M. B. TEEPLE, Mgr.

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**SENATOR DUNLAP STRAWBERRY PLANTS** a specialty. Money makers. Fourteenth year. Many satisfied customers. HAMPTON & SON, Bangor, Mich.

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**WE PAY \$100 MONTHLY SALARY AND** furnish rig and expenses to introduce guaranteed poultry and stock powders. Bigler Company, X682, Springfield, Illinois.

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Big Jones 3rd, out of Grand Daughters of Dish-er's Giant and bred to Wiley's King Bob, a good son of Harrison's Big Bob \$10,000.00. Gilts priced reasonable.  
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**BOARS ALSO SOWS AND PIGS. ANYTHING**  
you want. Poland Chinas of the biggest type. We have bred them big for more than 25 years; over 100 head on hand. Also registered Percherons, Holsteins, and Oxford. Everything sold at a reasonable price and a square deal.  
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March, April—\$50. to \$100  
J. W. WILLIAMS, No. Adams, Mich.

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and gilts now ready to ship. Also one Fall Yearling Boar and Fall Pigs. Clyde Fisher, St. Louis, Mich., R. R. 3.

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LARGE TYPE P. C.  
A few choice bred gilts for sale. Also fall gilts and boars, some very good prospects of excellent breeding. Gilts bred to ORPHAN'S SUPERIOR he by BIG ORPHAN'S EQUAL by BIG BONE ORPHAN by the BIG ORPHAN. Dam, BEAUTY'S CHOICE by ORANGE BUD, by BIG ORANGE A.  
Free delivery to visitors.  
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MR P C BREEDER IF YOU WANT TO GET a Gilt bred to BIG BOB MASTODON in the King row buy a Gilt bred to BIG BOB MASTODON. He has more Grand Champion Blood in his veins than any other boar in Michigan. I have 15 choice Gilts bred to him for March and April farrow.  
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**LARGE TYPE P. C. LARGEST IN MICH. VISIT**  
my herd if looking for a boar pig that is a little bigger and better bred than you have been able to find, and satisfy your wants. Come and see the real big type both in herd boars and brood sows. Boars in service. L's Big Orange Lord, Clamman, Orange Price and L's Long Prospect. Expenses paid of not as represented. Prices reasonable.  
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pigs spring farrow. Single Comb Rhode Island Red Cockerels. Write for pedigrees and prices. Inspection invited.  
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China boars. April and May farrow. The farmer's kind at farmer's prices. F. M. Piggott & Son, Fowler, Mich.

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none better, call or write.  
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Choice Duroc fall boars for sale. Write or better still, come and see them. Visitors welcome.  
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and breeding, including several State Fair winners. Newton Barnhart, St. Johns, Mich.

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of all ages. Sows bred or open. Newton & Blank, Hill Creek Farms, Perrinton, Mich. Farm 4 miles straight south of Middleton.

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hogs. Fall pigs for sale.  
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Mar. and first of April farrow, 1919. Weighing around 175 to 200 lbs., priced from \$50.00 to \$80.00 with pedigree.  
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winning stock ready for service. Geo. B. Smith, Addison, Mich.

**FOR SALE BIG TYPE DUROC JERSEYS**  
one yearling boar sired by Brockwater Tippy Orion No. 55421. 3 spring boars, fine individuals. Fall pigs of either sex sired by Cherry Premier 2nd No. 102819. Albert Eber-sole, R. F. D. No. 3, Plymouth, Mich.

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swine. Both sex. All ages. Rhode Island Red Barred Rock and White Leghorn cockerels. 40 a. and 80 acre farms. Easy terms.  
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of quality. Three good boars, farrowed in Mar and April, 1919, weighing 300 to 350 lbs. each. Modern type with big bone. Write for pedigrees and prices. Satisfaction guaranteed.  
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ONE OF THE BEST HERDS IN MICHIGAN  
Spring gilts and fall yearlings bred for March, April and May litters. I ship O. O. D., pay express and register in buyer's name. If you want a BIG TYPE sow guaranteed right in every way, write me.  
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row in March and April. Bred to MASTERPIECE'S ORION KING.  
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**WE OFFER A FEW WELL-BRED SELECT**  
bred spring Duroc Boars also bred sows and Gilts in season. Call or write.  
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**PHILLIP'S PRIZE WINNING DUROCS FOR**  
sale—A few good boars of breeding age, also a few good gilts, prices right; let me convince you.  
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**HYDE'S BIG TYPE DUROCS. 15 SPRING**  
boars for sale. Good ones, sired by Prize winners. Priced right if taken soon. Call or write.  
HARRY L. HYDE, Ithaca Mich., R. 1, Bell Phone

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REGISTERED BERKSHIRES FOR SALE, AUG.  
R 10 pigs for \$40 a piece, while they last. Satisfaction guaranteed.  
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profit. Choice stock for sale. Write your wants. W. S. Corsa, White Hall, Ill.

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CHESTER WHITES—A FEW MAY BOARS,  
fall pigs in pairs or trios from most prominent bloodlines at reasonable prices. Registered free.  
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**HAMPSHIRE**  
HAMPSHIRE  
of superior breeding and good quality. Will find same at the home of Moses' Boy.  
Spring boars all sold.  
Fall pigs either sex now ready.  
Bred gilts after Dec. 15.  
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**BRED GILTS ALL SOLD**  
ONE SPRING BOAR LEFT  
FALL PIGS FOR SALE  
W. A. EASTWOOD, Chesaning, Mich.

**HAMPSHIRE BRED SOWS AND BOARS**  
for sale. I also fall pigs of both sex. Best of breeding. Call or write.  
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**WHY NOT RAISE HAMPSHIRE ?**  
They have been winning at the International. They will win for you. They make good mothers, raise large litters and produce the best pork which sells at the highest price.  
Bred gilts ready for shipment. Also a few choice fall pigs from new blood lines.  
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**O. I. C.**  
GILTS WEIGHING 150 TO 250 LBS. IN BREEDING FLESH. BRED FOR MARCH AND APRIL FARROW. Guaranteed safe in dam. I will replace any proving otherwise or refund the purchase price. A few good fall pigs either sex. Herd cholera immuned by double treatment. Only a few service boars left.  
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**BIG TYPE O I C'S—A FEW BOARS, WT.**  
250, also bred gilts for March and April farrow. Ship C. O. D.  
R. C. R. L. Red Cockerels, \$2.50.  
ELM FRONT STOCK FARM  
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boars. Buff Rock Cockerels, \$3 each.  
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also bred Gilts and a few fall pigs. Some of the best O. I. C. pigs, sired by Jumbo Master No. 64687. All stock shipped C. O. D. Joseph Van Etten, Clifford, Mich.

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blood lines of the most noted herd. Can furnish you stock at "live and let live" prices.  
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**Mud-way-aush-ka farm**  
offers O. I. C. bred gilts and two serviceable boar pigs. Also bred to lay Barred Rock hens and pullets, Embden Geese and White Runner Ducks.  
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Choice spring gilts bred for April farrow \$70. Tried sows bred for March farrow, \$110. Spring boars \$40. Thrifty pigs, either sex, \$20. Satisfaction guaranteed.  
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white won exhibition prize at Saginaw Fair. Our herd boar, C. C. Michigan Boy, was the largest hog of all breeds shown. Pigs of this big type, prize winning stock, registered free and shipped C. O. D.  
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REG. SHROPSHIRE BRED EWES 1 TO 3 years old, large, healthy, well fleece. Representatives of this flock gave satisfaction in 15 states last season. Rams all sold; C. Lemen, Dexter, Mich.

**OXFORD DOWNS**  
I can spare a few registered ewes of any age.  
O. M. YORK, Millington, Mich.

**KIDS OF MICH. YOU ARE THE FUTURE**  
farmers of the state. I am one of the best sheep breeders in the state. Lets get together, that you may start your own flock of registered Shropshires now. A lot of kids have already done so, but I want more. I will buy your ram lambs and co-operate with you in every way. Write me for my proposition and prices. Box B, Kops-Kan Farms, S. L. Wing, Prop., Oldster, Michigan

**HAMPSHIRE SHEEP**  
Everything sold out, both ewes and rams. I am breeding 50 ewes to "Stroman 209" an excellent big boned type ram lamb that weighed 176 lbs. October 1. Booking orders for 1920 rams.  
CLARK U. HAIRE, West Branch, Mich.

**PET STOCK**  
BELGIAN HARES, CHOICE STOCK, 3 AND 6 months old, also S. C. Ancona Cockerels. Write for prices; Sheridan Rabbitry, R 5, Sheridan, Mich.

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DAY OLD CHICKS  
NEW SPRING CATALOG  
Those who want Day Old Chicks should order early. There will be a big demand again this year. With eggs 75 cents in your home town, people will buy heavily of the laying breeds. For six weeks we have booked orders for spring delivery.  
Let us know now the breed you will want. New Catalog ready January 15. All standard breeds.  
You will be especially interested in the extra heavy laying breeds. White Leghorns inspected and certified as heavy producers by the Poultry Extension Specialist of the Michigan Agricultural College.  
Eggs for Hatching—Sittings and for incubators, all breeds. Eggs for Broilers.  
A few high quality utility Cockerels in standard breeds. Let us describe and quote these birds. Brown Leghorn Yearling Pullets. One small pen White Rocks.  
Send your name now for new Catalog.  
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Desk B, Kalamazoo, Mich.

**COCKERELS AND PULLETS**  
High grade pure bred UTILITY birds at reasonable prices, we ship on approval. Write us your wants. We offer the following breeds:  
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We are booking orders for 1920 delivery of Eggs for Hatching and Baby Chicks. We can offer several hundred Belgian Hares and Flemish Giants all ages at bargain prices.  
VALLEY RIDGE POULTRY FARM  
Frazer Miller, Prop. Bloomingdale, Mich.

**COCKERELS, DRAKES, ANCONAS, BUFF**  
barred, Columbian, Silver Pencilled and White Plymouth Rocks; Rouen drakes, price, \$3 each. SHERIDAN POULTRY YDS., R5, Sheridan, Mich.

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Two great breeds for profit. Write today for free catalogue of hatching eggs, baby chicks and breeding stock.  
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Have 10 more Cockerels for sale. Tom Barron 274 egg strain. A. Altenberg, Allegan, Mich.

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WHITTAKER'S R. I. REDS, BOTH COMBS.  
Bred for color and eggs. Choice, farm raised cockerels at reasonable prices. Day old chicks. Order now for early spring delivery. Write for prices.  
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from good laying hens. Price \$3.50.  
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BARRED ROCK COCKERELS, BRED FROM great layers.  
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Pullets bred from Detroit and Boston winners. Good laying strain. Prices reasonable, satisfaction guaranteed.  
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Contest winning strain, direct. Sired by pedigree male, 260 egg record. Also a few choice Partridge Rock Cockerels, prices \$3, \$4 and \$5.  
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are hen hatched, good layers, grow quick, sold on approval. Males \$4 to \$8 each. Photos. Circulars.—John Northon, Clare, Mich.

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blood in the country. Hens and Cockerels, \$3 to \$5. RICHARD B. GRETTON, Mason, Mich.

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30 Years a Breeder of Silver Laced and White Wyandottes. Fine lot of young stock at \$3, \$4 and \$5 ea. Clarence Browning, R2, Portland, Mich.

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Wyandotte Cockerels, \$3 to \$5 each.  
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ANCONA COCKERELS FOR SALE \$2 EACH  
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Baby chicks. Hatching eggs. Write for prices. Order early. Also progressive and superb everbearing strawberry plants \$2 per hundred.  
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Brown Leghorns, \$17 per 100, Anconas, \$18 live arrival guaranteed. Order now. Eggs of all breeds. Free catalog. TRIANGLE, Clinton, Mo.

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THOROUGHbred DAY OLD CHICKS  
Single comb, White, Buff and Brown Leghorns. White, Buff and Barred Rocks.  
S. C. R. L. Reds, Anconas, White Wyandottes. 25 chicks, \$6.25; 50 chicks, \$11; 100 chicks, \$20.00.  
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REG. SHROPSHIRE BRED EWES 1 TO 3 years old, large, healthy, well fleece. Representatives of this flock gave satisfaction in 15 states last season. Rams all sold; C. Lemen, Dexter, Mich.

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TOLLES BROS., R 10, St. Johns, Mich.

**Barred Rock Cockerels from Trapnested State**  
Contest winning strain, direct. Sired by pedigree male, 260 egg record. Also a few choice Partridge Rock Cockerels, prices \$3, \$4 and \$5.  
N. AYERS & SON, Silverwood, Mich.

**JOHN'S BIG BEAUTIFUL BARRED ROCKS**  
are hen hatched, good layers, grow quick, sold on approval. Males \$4 to \$8 each. Photos. Circulars.—John Northon, Clare, Mich.

**WHITE ROCK COCKERELS, CHOICE ONES**  
at \$3.00 to \$5.00 each. Also Duroc boars ready for service at \$40.00.  
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**WHITE ROCKS, BEST EXHIBITION LAYING**  
blood in the country. Hens and Cockerels, \$3 to \$5. RICHARD B. GRETTON, Mason, Mich.

**WYANDOTTES**  
30 Years a Breeder of Silver Laced and White Wyandottes. Fine lot of young stock at \$3, \$4 and \$5 ea. Clarence Browning, R2, Portland, Mich.

**A FINE LOT OF FISHELL STRAIN WHITE**  
Wyandotte Cockerels, \$3 to \$5 each.  
CECIL HURLEY, Crossville, Mich.

**ANCONAS**  
ANCONA COCKERELS FOR SALE \$2 EACH  
JOHN YOUNG, Breckenridge, Mich.

**DUCKS AND GESE**  
WHITE PEKIN DUCKS AND WHITE CHINESE GESE—MRS. CLAUDIA BETTS, HILLSDALE, MICH.

**TURKEYS**  
TURKEYS MAMMOTH BRONZE, EARLY hatched, big boned, fine color and marking. Write for prices. Mrs. Jay Harwood, Ionia, Mich.

**BABY CHICKS**  
MARTIN'S STRAIN, WHITE WYANDOTTES.  
Baby chicks. Hatching eggs. Write for prices. Order early. Also progressive and superb everbearing strawberry plants \$2 per hundred.  
C. W. HEIMSACH, Big Rapids, Mich.

**BABY CHICKS: Pure bred White Leghorns.**  
Brown Leghorns, \$17 per 100, Anconas, \$18 live arrival guaranteed. Order now. Eggs of all breeds. Free catalog. TRIANGLE, Clinton, Mo.

**O. K. CHICKEN HATCHERY**  
THOROUGHbred DAY OLD CHICKS  
Single comb, White, Buff and Brown Leghorns. White, Buff and Barred Rocks.  
S. C. R. L. Reds, Anconas, White Wyandottes. 25 chicks, \$6.25; 50 chicks, \$11; 100 chicks, \$20.00.  
A. C. MORNINGSTAR, Prop. Box 263, Phone 115. Fenton, Mich.

**LEGHORN**  
R C BROWN LEGHORN COCKERELS, Sired by a Madison Sq. winner. Large, vigorous birds. \$2 and up. Quality guaranteed. Flemish Giant Rabbits that are giants.  
E. E. HIMEBAUGH, Coldwater, Mich.

**S. C. WHITE LEGHORN HATCHING EGGS.**  
Have 10 more Cockerels for sale. Tom Barron 274 egg strain. A. Altenberg, Allegan, Mich.

**RHODE ISLAND REDS**  
WHITTAKER'S R. I. REDS, BOTH COMBS.  
Bred for color and eggs. Choice, farm raised cockerels at reasonable prices. Day old chicks. Order now for early spring delivery. Write for prices.  
INTERLAKES FARM, Box 4, Lawrence, Mich.

**S. C. RHODE ISLAND RED COCKERELS**  
from good laying hens. Price \$3.50.  
W. S. HUBER, Gladwin, Mich.

**PLYMOUTH ROCKS**  
BARRED ROCK COCKERELS, BRED FROM great layers.  
W. C. COFFMAN, Benton Harbor, Mich., R. 3

**CHOICE BARRED ROCK COCKERELS AND**  
Pullets bred from Detroit and Boston winners. Good laying strain. Prices reasonable, satisfaction guaranteed.  
TOLLES BROS., R 10, St. Johns, Mich.

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30 Years a Breeder of Silver Laced and White Wyandottes. Fine lot of young stock at \$3, \$4 and \$5 ea. Clarence Browning, R2, Portland, Mich.

**SHOE**  
REG. SHROPSHIRE BRED EWES 1 TO 3 years old, large, healthy, well fleece. Representatives of this flock gave satisfaction in 15 states last season. Rams all sold; C. Lemen, Dexter, Mich.

**OXFORD DOWNS**  
I can spare a few registered ewes of any age.  
O. M. YORK, Millington, Mich.

**KIDS OF MICH. YOU ARE THE FUTURE**  
farmers of the state. I am one of the best sheep breeders in the state. Lets get together, that you may start your own flock of registered Shropshires now. A lot of kids have already done so, but I want more. I will buy your ram lambs and co-operate with you in every way. Write me for my proposition and prices. Box B, Kops-Kan Farms, S. L. Wing, Prop., Oldster, Michigan

**HAMPSHIRE SHEEP**  
Everything sold out, both ewes and rams. I am breeding 50 ewes to "Stroman 209" an excellent big boned type ram lamb that weighed 176 lbs. October 1. Booking orders for 1920 rams.  
CLARK U. HAIRE, West Branch, Mich.

**PET STOCK**  
BELGIAN HARES, CHOICE STOCK, 3 AND 6 months old, also S. C. Ancona Cockerels. Write for prices; Sheridan Rabbitry, R 5, Sheridan, Mich.

**POULTRY**  
DAY OLD CHICKS  
NEW SPRING CATALOG  
Those who want Day Old Chicks should order early. There will be a big demand again this year. With eggs 75 cents in your home town, people will buy heavily of the laying breeds. For six weeks we have booked orders for spring delivery.  
Let us know now the breed you will want. New Catalog ready January 15. All standard breeds.  
You will be especially interested in the extra heavy laying breeds. White Leghorns inspected and certified as heavy producers by the Poultry Extension Specialist of the Michigan Agricultural College.  
Eggs for Hatching—Sittings and for incubators, all breeds. Eggs for Broilers.  
A few high quality utility Cockerels in standard breeds. Let us describe and quote these birds. Brown Leghorn Yearling Pullets.



# Big Buying Opportunities for 1920!

**Government  
Army Camps!**

**Manufacturers  
Sales!**

**Government  
Purchases!**

**NOW READY!—All Material from Our Latest Big Purchases!**

## Wonderful Roofing Offers

Now is the time to buy roofing. But you must act quickly to get your share of these uncommon savings.

Ajax high grade rubber surfaced roofing in rolls of 108 square feet; complete with nails and cement.

**KP-302.**  
3 Ply, per roll.....\$1.56  
2 Ply, per roll..... 1.40  
1 Ply, per roll..... 1.22

**Rawhide Stone faced gold** medal roofing guaranteed fifteen years. Rolls of 108 square feet with nails and cement. **KP-303.** Per roll.....\$2.25

**Famous Rawhide rubber roofing, 3 ply** guaranteed for 12 years. Rolls of 108 sq. ft. with nails and cement. **KP-304.** 3 ply, per roll, \$1.95. 2 ply, per roll, \$1.80. 1 ply, per roll, \$1.45.

## Corrugated Metal Sheets

**Per 100 Square Feet**  
**\$2.25**

28 gauge painted 2 1/4 in. corrugated overhauled sheets 5 1/2 ft. long.

**KP-306.** Per 100 square feet.....\$2.25

26 gauge painted 2 1/4 in. corrugated overhauled sheets. **KP-307.** Per 100 square feet, \$3.00

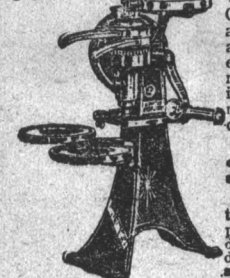
24 gauge extra heavy painted 2 1/4 in. corrugated overhauled sheets. **KP-308.** Per 100 square feet.....\$3.50

## One-Piece Sinks \$15.95



**KP-6520.** White porcelain enameled one-piece roll rim sink and back; two nickel-plated faucets, strainer and lead "P" trap complete.  
18 in. x 30 in.....\$15.95  
20 in. x 36 in..... 16.95

## Harris' Cream Getter Separators



**Order Number**  
X27KP100  
X27KP200  
X27KP300  
X27KP400  
X27KP500  
X27KP600  
X27KP700  
X27KP800

X indicates table sizes. Ready for shipment from Minnesota, Pennsylvania, Chicago Warehouses. 3% Disc. If all cash is sent with order.

## Getter Separators

**The Machine with a 100% Record**  
The Harris "Cream Getter" Cream Separator has made a remarkable record—not a single return, not a complaint. The big increase in sales enables us to offer all sizes at big price reductions. Your old separator taken in exchange as part payment on your new "Cream Getter." Buy on your own terms.

Send first payment of what you can spare with your order and tell us how you can pay the balance. The same high quality "Cream Getter" with all exclusive patented improvements, including the equal milk distributing sleeve now offered at the reduced prices shown below. Mail coupon for full facts and full explanation.

Order Number	Size	Capacity Per Hour	Reduced Prices
X27KP100	x1	x175 Pounds	x\$34.50
X27KP200	x2	x250 Pounds	x\$40.00
X27KP300	x3	x375 Pounds	x\$50.00
X27KP400	x4	x500 Pounds	x\$60.00
X27KP500	x5	x625 Pounds	x\$70.00
X27KP600	x6	x750 Pounds	x\$80.00
X27KP700	x7	x875 Pounds	x\$90.00
X27KP800	x8	x1000 Pounds	x\$100.00

## The Most Sensational Savings in our Eventful History!

Never before in our entire career have we been able to place before the buying public such colossal bargains. For more than a quarter century we have successfully completed the greatest merchandising and dismantling contracts in the history of the world. But no other purchase of ours offers the unlimited buying opportunities we are placing before you with this announcement. Bigger, better, greater values in practically everything now await the quick, wise buyer. The following brief outline of camps Doniphan and Shelby are but two of many stupendous purchases, the benefits of which will be uniformly distributed to the people of the nation, in the greatest sale of all time.

### Camp Doniphan At Fort Sill, Oklahoma

With the award of this completely equipped Army Camp, we secured millions of feet of high grade thoroughly seasoned lumber, enormous quantities of doors, roofing, pipe, valves, pipe fittings, plumbing and heating material. We have prepared complete lists of everything we have for sale at this Camp and have stationed our representatives on the ground. **All mail should be addressed to us here at our main headquarters in Chicago.**

### Camp Shelby Near Hattiesburg, Miss.

In securing this camp, we are now able to place before you practically all equipment of one of the largest and finest Government Army Camps. Think of it! Nearly 20,000,000 feet of lumber and wallboard; thousands of closet outfits, heating stoves, refrigerators and heaters; large quantities of electrical apparatus, pipe and practically everything used in a town of 30,000 people. **Address all mail to our main headquarters here in Chicago.**

**Mail the Coupon for All Particulars Now!**

## 20,000,000 Feet of High-Grade Lumber!!

Never again will you have such a splendid chance to buy high grade and thoroughly seasoned lumber. Like all of the material used in the Government Camps, this lumber was purchased under rigid government inspection and is of splendid quality. Sit right down and figure your requirements now! If you can use buildings of any kind, send us your requirements and let us give you the benefit of the savings we have made in these great purchases. Any of the buildings at the camps can be taken down and shipped to you with a big saving. Our complete list includes buildings of every size.

### 2,000 Complete Buildings!

225 Mess Halls, all sizes  
65 Store Houses, size 20 ft. x 98 ft.  
95 Heater Houses, size 9 ft. x 35 ft.



### All Sizes for Every Use!

200 Power Houses, size 9 ft. x 35 ft.  
230 Stables, size 24 ft. x 100 ft.  
45 Blacksmith's Houses in numerous sizes

## Bathroom Outfit Complete \$71.50



Substantial value is offered in this guaranteed "A" grade bathroom combination. **ORDER NOW and get the benefit of this unusual saving.**

**KP-306.** Consists of white porcelain enameled bath tub 5 ft. long and 30 in. wide, fitted with nickel-plated connected waste and overflow, nickel-plated double bath cocks. The white porcelain enameled lavatory is furnished with nickel-plated trap and nickel-plated compression faucets indexed for hot and cold water. The closet includes a white vitreous earthenware wash down Syphon action bowl and a highly finished golden oak tank lined with heavy copper. Closet seat finished to match the tank. Our special low sale price, complete.....\$71.50

## WATTS CORN SHELLERS

**\$79.50**

Your best chance to buy the world's best corn sheller at big reduced prices under most liberal terms with a 30 day free trial and guaranteed satisfaction.

**Watts No. 1** Corn Sheller for the man who shells corn for his own use. Capacity 10 to 75 bushels per hour with a 3 H. P. engine, now \$34.50. Order No. KP-900.

**Watts No. 4** Corn Sheller with cleaning system, cob stacker and grain elevator, \$79.50. Order No. KP-901.

**Watts No. 7** Corn Sheller with stand, grain elevator, cob stacker, type "R" feeder on steel trucks, capacity 200 bushels per hour, now \$266.00. Order No. KP-902.

**Watts No. 8** Double Cyl. Sheller for custom work. With standard equipment, wagon box elevator, swivel cob stacker and feeder, horse hitch on steel trucks, capacity 200 bushels per hour, now \$390.00. Order No. KP-903.

**Order Now!**

**Send Your Order Today!**

## Guaranteed Paint

**\$2.50 PER GALLON**  
Best formula. White, black and twenty-six non-fading colors to choose from. Put up in one gallon cans, 5 gallon kets, 25 gallon half barrels and 60 gallon barrels. **KP-206.** gal. \$2.54. Guaranteed barn paint. Red, yellow or maroon, gal. \$1.60. Green slate or red, gal. \$1.90.

## Mixed Bolts

**30 lb. Keg \$3.25**  
**KP-4081.** All kinds and sizes mixed, carriage, stove, plow bolts, up to 1/2 in. diameter and 8 in. long. 50-lb. keg.....\$3.25. 100-lb. keg..... 6.25

## Ford Radiators

**\$20.00 for Old or New Models**  
**KP-1507.** Latest honeycomb pattern. Large water capacity and cooling surface. Black Japan finish. Old or new models, etc. \$20.00.

## "Presto-Up" Bolt-Together Buildings

**\$124**  
The wonder buildings of the age. Wonderful because they are so simple. Erected in a few hours. The only tools you need are a hammer and wrench. These famous Presto-Up buildings are designed for garages, summer cottages and industrial labor houses. Used extensively by the U. S. Government, large mining companies and leading industrial plants. Numerous styles and sizes illustrated and described in free complete "Presto-Up Book." Mail coupon for copy now.

## Hog Troughs

Made of heavy galvanized iron with non-tip flared legs. **KP-612** 5 ft. \$1.95; 8 ft. long, \$2.95; 10 ft. long, \$3.95. Lots of three, 10c less each; six, 20c less each; twelve, 30c less each.

## Iron Pipe

Our big, complete stock of pipe offers big values. Random lengths complete with couplings in all sizes are now offered at prices that show big savings. Suitable for the conveyance of water and all liquids. **KP-204.**  
1 inch, per foot..... 6c  
1 1/2 inch, per foot..... 8c

## Mixed Nails

**\$3.75 per 100 lb. keg**  
**100% HANDY ASSORTMENT OF WIRE NAILS**  
New Wire Nails, all sizes from 8 to 40 D. Put up in 100 lb. kegs. A handy assortment for general use—plenty of each kind. **KP-68.** 100 lb. keg, \$3.75.

## MAIL THIS COUPON NOW!

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Mark an X in the squares below to show what you want us to send you. All are FREE and sent postpaid.

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## Barbed Hog Fence



**Per Rod 26c**  
Special barbed bottom galvanized fence made of No. 11 top wire and No. 14 intermediate line and stay wires. Stays spaced 6 in. apart. **KP-209.** 26 in. per rod..... 26c. 30 in. per rod..... 30c.

## Monarch Engines

A splendid engine with Webster oscillating magneto. Develops full rated power. A sure starter and steady worker under all conditions. **KP-162.**

<b>Kerosene</b>	<b>Gasoline</b>
3 H.P.....\$96.00	1 1/2 H.P.....\$49.50
5 H.P.....125.00	2 1/2 H.P.....83.00
7 H.P.....190.00	4 1/2 H.P.....110.00
10 H.P.....320.00	6 H.P.....170.00

## Robinson Hay Baler



**\$225**  
The best hay baler made at a remarkable saving. Biggest capacity built to run from a large tractor or small gas engine. Get the benefit of these low prices. **KP-315.**  
16 in. x 15 in. Junior.....\$225.00  
17 in. x 22 in. Standard..... 275.00  
Feeders for balers..... 75.00

**HARRIS BROTHERS COMPANY 35th and Iron Streets, CHICAGO, ILL.**