

MICHIGAN FARMER

AND
LIVE STOCK
PUBLISHED WEEKLY.

JOURNAL.
ESTABLISHED 1843.

The Only Weekly Agricultural, Horticultural, and Live Stock Journal in the State.

VOL. CXLIII, No. 15.
Whole Number 3804.

DETROIT, MICH., SATURDAY, OCT. 10, 1914.

{ 50 CENTS A YEAR.
{ \$2 FOR 5 YEARS.

I HAVE seen statements to the effect that late fall plowing is advisable in all cases and on any type or kind of soil. While it is true that there are a great many arguments in favor of fall plowing as compared with spring plowing, it is not satisfactory in all cases. The common advantages which are enumerated for this work are that more moisture is conserved for the use of the plants the following year; that more weeds can be killed most easily in this manner and that insect pests will be largely eliminated.

Fall Plowing Conserves Moisture.

There can be no question but that where land is of the right type, it can be profitably plowed in the fall. Such fall plowed land will hold a great deal more moisture for use of the plant the following year than will land that is spring plowed. I have seen this demonstrated a great many times. In one instance, the outer portion of a corn field was plowed in the fall. Other work came on so quickly that the middle of the field could not be plowed before snow came on and so had to be spring plowed. The next summer happened to be a dry one and when the corn was just in the tasseling stage from an eminence overlooking the field, the border of the corn field was seen to be a richer green than was the portion in the center.

Where land is plowed in the spring, there is often a dense growth of grass or other organic matter on top of the soil. This is turned under and the top soil does not have a chance to pack down firmly on this material before the plants are ready to grow, with the result that the capillarity of the soil is broken up. It is well known that soil water rises to the surface where it may be utilized by the plants through the contact of the grains of soil. If a layer of organic matter is placed between the subsoil, where the water comes from, and the top soil into which the plant roots penetrate, this unquestionably shuts off the course of the capillary water which rises to the surface. This capillarity is evenly distributed under good tillage conditions. When these well distributed courses are shut off, the moisture comes up to the layer of foreign material and from here, instead of continuing on upward, it is evaporated and passes out through the cracks in the top soil.

Often, however, the loss of moisture is not so much through evaporation but on account of that which has been taken up and is held by the plants which were turned under. If grass is turned under late in the spring and then a crop planted directly upon the soil, there has been a great deal of the ground water taken up by the grass. This is locked up in the cells of the grass leaves and it is some little time before this becomes available. Often in the early stages of the crop's growth just when it needs moisture the most, the supply is shut up in the plant cells under the sod while later some of this supply is liberated at a time when it is not needed so badly.

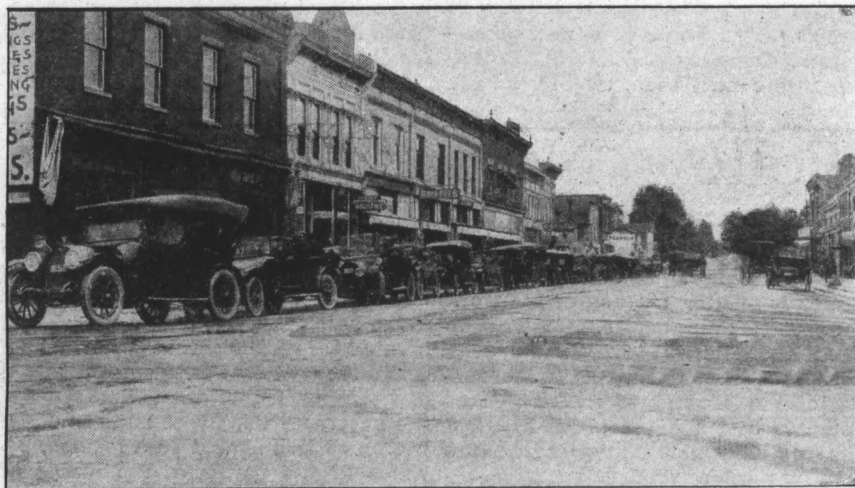
The physical condition of most soils is improved by alternate freezing and

Late Fall Plowing.

thawing. Take a piece that has been plowed in the spring under too wet conditions and is lumpy; it may be often improved by fall plowing. The action of the elements is to break up these particles which are cemented together into a hard chunk. These are broken up into smaller particles. In a large lump of soil there is an appreciable amount of plant food stored up but when the elements are work-

again turned to the surface, the sun stimulates growth and the ones that grow are killed by the late autumn frosts.

Of course, those weed seeds that take a long time to germinate will often lie on the ground over winter but they may be very easily killed next spring by going over the piece with the spring tooth harrow at intervals of ten days or two weeks. Those



Twenty Autos Loaded for a Tour of Inspection of Newaygo County Farms.

ing this lump to pieces and improving the soil in a mechanical way, they are also improving its chemical condition for the plant food which was locked up in the lump is now made available for plants. Aside from the simplification of the soil particles, the material is placed in a form such that bacteria can get to work upon it and they break up the more complex fertilizers

seeds which contain a large amount of moisture in the germ, will be killed if thrown to the surface and allowed to freeze. Freezing does not kill them unless they contain a certain amount of moisture because dry plant food is seldom injured by low temperatures. Some of the weed seeds that do not naturally come up early in the spring will come up somewhat earlier by



Newaygo Co. Farmers and Business Men Viewing a Guernsey Herd.

into simpler compounds which can be more readily used by the plant.

Freezing Kills Weeds and their Seeds.

An, by no means, unimportant function of fall plowing is to kill weeds and destroy the germinating quality of others which are not killed by freezing the plants. When the soil is turned under by the plow one year, a great many weed seeds go along with the top soil. These are so far down in the ground that they do not receive very much of the heat of the sun's rays and hence do not germinate. The moment these seeds are

having the land fall plowed and these may be easily killed by the harrowing which is done in fitting up the ground.

Some Insects Are Controlled.

It is well known that many of the insects which are so injurious to some of our cultivated plants spend the winter stage of their existence in the ground. The young potato bugs burrow into the ground in the fall and pupate. Pupation in the insect corresponds somewhat to the hibernation of animals. In the spring, the full-fledged Colorado potato beetle comes forth ready to assail the first potato

plant that shows its bud above the ground.

The grasshopper lays her eggs in the first half-inch of soil in old pastures or lanes and if these are turned under in the fall, the eggs are put so far under that they do not hatch out the following summer. The pupa of the other insects which burrow farther down into the ground are turned to the surface and as these usually contain relatively large amounts of moisture, they are killed by the freezing weather. Just the insect phase of the problem is quite important for many of them are effectually controlled by fall plowing.

Sand and Wash Soils Are Damaged.

I have heard the advice unreservedly given that all soils should be fall plowed. This is hardly sound counsel. While there are a great many soils which are better off for being plowed before the snow comes on, there are others which are damaged to a very great extent by this same procedure.

Usually, a sandy soil is poor in organic matter. Many such sandy soils in Michigan have the chemical elements required for successful plant growth but on account of the lack of organic matter, are not as productive as are our heavier soils. A sandy soil is also much more liable to leaching and leaching of a soil is sure to carry away some of the nitrogen which it contains and that is the most expensive element which must be kept in the soil. A sandy field is often "burned out" by fall plowing; that is, it seems that the rays of the sun beating upon it for three or four months, as the case may be, render the organic matter contained in the soil inactive. On account of the better sub-drainage which a sandy soil always has, the rains leach the most important plant foods, either farther down in the soil where they are lost, or they are put in solution where the nitrogen easily detaches itself from the bonds which hold it and goes off in the atmosphere.

While fall plowing is very effective in killing weeds, conserving moisture and controlling insect pests when practiced on heavy land, it cannot be advised in every case. One must suit the plowing to the soil. Where land is sandy or hilly, exposure during the winter often leaches away the most valuable portions of it. In the case of hilly land, the really most important plant foods are washed down into the ravines and often clear off from the owner's farm.

Ingham Co. I. J. MATHEWS.

GETTING ACQUAINTED WITH THE COUNTY'S AGRICULTURE.

Newaygo is one of the fortunate counties enjoying the services of a county farm adviser, and further fortunate in that this advisor is one who has been able to get results and improve the agricultural conditions in this county. Having been here only a matter of some fifteen months, he has been able to make such an imprint in the nature of his work that undoubtedly the work will be a continued factor in the future. Coming

HOME SAFETY against Lightning, Fire and Storm

Lightning causes 75% of roof fires but it never damaged a roof covered with

Kanneberg Metal Shingles

"We Pay the Freight"

They are proof against fire, rain, snow, heat and cold. Need no repairs, because they will not rot, rust, crack, buckle, curl nor fall off. Can be laid on low pitch roofs and always look well. Give clean cistern water. You can save big money by using this almost indestructible roofing. Buy direct from the factory. Put it on yourself easier and quicker than wood shingles.

Send for our catalog and rock bottom prices before you buy any roofing. Kanneberg Shingles make the cheapest roof you can buy, judged by service, the real test. Come in single shingles, 8 to a sheet, or in clusters 2 feet by any length from 5 to 10 feet. Many designs and sizes. Write for catalog today. Be sure to give dimensions of your roof, and we'll tell you how to get the best roof at lowest cost.

KANNEBERG ROOFING & CEILING CO.
Est. 1896
1433 Douglas Street
Canton, Ohio

Name.....
Address.....

D. J. Yoder
Says:

"My Pea Crop Figured Out \$67 an Acre"

He used an Owens Bean and Pea Thresher—bridge truss construction—that takes the vines as they come from the field—cleans the seed with no splitting—shreds the vines into first class feed ready for your stock. Your beans and peas will get the highest market prices. The Owens Thresher pays for itself the first season. Thresh your own crop and make money threshing for your neighbors in the spare time saved over old fashioned methods. One man made \$90 in a day and a half.

Owens Bean and Pea Threshers

made in all sizes. Suited to small individual growers or large growers and threshermen. Shipped on approval, subject to our binding guarantee. Easy payments if you wish.

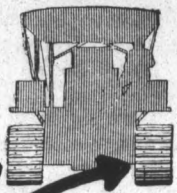
Get This Book On Bean Culture

with letters from men who have made money from Owens Threshers. Full particulars of our offer.

J. L. OWENS COMPANY
Dept. 6, Chamber of Commerce
Minneapolis, Minn.



FREE



The Track's the Difference

The long, wide track is what makes this tractor succeed where others fail. That big bearing surface (24 sq. ft.) gives a better ground grip and distributes the weight so it can't pack the soil. It works on any ground, rough or soft, sand or mud. Built on honor. Cheap to maintain. 2,000 satisfied users. Three sizes. Write for Catalog E F 147 and get the whole story.

THE HOLT MFG. CO., INC.
Peoria, Ill. Stockton, Cal.

CATERPILLAR
Reg. U.S. Pat. Off.

WANTED—AN IDEA: Who can think of simple thing to patent? Protect your ideas, they may bring you wealth. Write for "Needed Inventions" and "How to Get Your Patent and Your Money." RANDOLPH & CO., PATENT ATTORNEYS, DEPT. 67, WASHINGTON, D. C.

in June in 1913 he was unable to plan very much experimental work, but the past spring and summer has seen a lot of co-operation between Mr. Blandford and the farmers, with the result that certain phases of agricultural work in the community have been attempted this summer with marked success.

In order that the farmers and business men might see what was being done in the county in this work, also that they might get together and get better acquainted and the farmers get away from home and see the other fellow's farm, a day off was planned and the said people, under the direction of Mr. Blandford got together September 10. Both business men and farmers donated autos and at 8:30, 20 autos left Fremont loaded down with business men, farmers, and a score of boys from high school who were taking the agricultural work. Going north from Fremont the first stop was at John Jacklin's, where an 800 tree orchard was visited and the results of thinning apples noticed. Dan Rousch's was the next stop where a field of sweet clover that yielded 4,025 pounds to the acre was visited. Another fruit farm, with apples galore, was seen. Then a long sweep south to Reeman, where the orchard of John Beam was seen. Another noticeable effect of pruning by Mr. Blandford and Mr. O. K. White. Good system and fine buildings were observed at Robert Kemp's. Two herds of pure-bred cattle, one Guernsey and the other Holstein, were next seen, and then back

to Henry Rozema's where another herd of Guernseys was seen, also some good buildings and a good farm system.

Then came dinner at Fremont and at 11:30 the same 20 autos started east and south. The first stop was at E. J. Taylor's, where a fine herd of pure-bred Herefords were found and likewise an excellent orchard. The dairy farm of Joseph Gerber was visited and an excellent herd of registered Holsteins was inspected, also some of the finest alfalfa in the western part of the state—alfalfa that cut six tons to the acre this year. At A. L. Markley's was found a plot of potatoes that had been treated to varying amounts of commercial fertilizer and that had had thorough spraying. Examination of the hills showed that the fertilizer was getting in its work. A long ride south through Newaygo brought the travelers to Grant, where everyone got out and stretched their legs. Out of Grant was found another fine piece of fertilized potatoes belonging to Mr. Voigt. More evidence was gathered here of the effect of the fertilizer on the potatoes. South and west of Grant is the Jennings farm of 4,000 acres. This place proved to be a veritable town in itself. Good buildings, fine cows and horses were found here. Then back to Fremont with the hundred odd men and boys voting the entire trip of 80 miles a success, and feeling that they knew their neighbors, their county, county agent and his work better.

Newaygo Co.

K. K. VINING.

Follow Nature's Methods.

THE question of farm management is attracting a great deal of attention nowadays and the farmer is making a study of his work more than ever before. It will be found that he is investigating the crops that can be grown in his section of the country to find which of them are best adapted to his soil and climate and which varieties are the most profitable producers.

No set rules can be laid down in answer to these questions as our soils and climate differ radically and one must use his best judgment, and profit by his and his neighbors' experiences in selecting his line of farming and what crops will bring him the best returns. There are certain principles that should be followed in every case, however. We must do everything in accordance with nature and her laws, and take every opportunity that we can to assist nature in her work.

If a piece of wornout ground is left alone for a few years and nothing is done on it in the way of cultivation, nature will start in at once to build up the soil and restore the fertility that has been taken out of it by continued cropping. The first step that will probably be taken will be to raise a crop of poor weeds. The first year the growth may not be very vigorous, but the weeds will die, fall upon the ground where they will decay, and as they do so they will add fertility to the surface soil. The next year the weeds will grow larger and a greater number of varieties will make their appearance. The roots will go deeper into the soil and feed upon the plant foods that could not be reached by the roots of the weed crop that was on the land the year before. This thicker growth of weeds will, when they decay, add more fertility to the surface soil where it is more readily available for the use of crops or plants that are to follow. This growth of vegetation continues from year to year, and each season it becomes thicker and heavier as the fertility is brought up to the surface and as the amount of decaying vegetable matter or humus increases in the soil. Trees will make their appearance and cover the surface of the soil with their covering of leaves which, aside from in-

creasing the fertility aid very materially in holding the moisture in the soil near the surface where the plants can make use of it.

To assist nature, then, we should arrange a rotation that will include some crop every few years that we can turn back into the soil to give it the necessary supply of humus. Such a crop as this should be a legume, because of the power of the plants of this family to gather nitrogen from the air by the aid of the bacteria that live upon their roots. There is another reason why these crops should be grown more, and especially for the purpose of turning under, and that is that their root systems go into the soil so deeply. Raising clover, alfalfa and such crops is not like growing the grain crops that have roots that feed so near the surface. When the former crops are grown the plant food for a depth of five or six feet is being made use of. Nourishment from this depth is brought to the surface and used in making the crop that afterwards, if turned under, will deposit it within the first eight or ten inches of surface soil.

Another lesson that we learn from nature's method of restoring fertility to worn soil, is that we should keep a covering over the surface of the ground for the purpose of retaining moisture. If nature is left to have her way, every fall she will provide some kind of a covering on the soil that will serve as a protection during the freezing weather of winter. At this season such a covering has other functions aside from holding moisture. It prevents washing away of soil at times of thaws or heavy rains. It is also a great protection for seeds of all kinds during the cold weather, for when so covered they will not winter-kill and will make growth below if not above ground, earlier in the spring than they would otherwise.

Nature always returns to the soil all of the vegetation that is produced on it. This is something we cannot do, however, and make a profit from our farms, but there are some systems of farming where it is possible to a much larger extent than it is in others. Upon a dairy farm where nothing is sold from the place except butter,

and all of the crops raised are fed to stock and the manure returned to the soil, nature's plan is followed more closely than is possible in any other system of farming. The next best method is in the raising of live stock for the market and feeding them on the crops that are produced on the farm. But in some cases such systems of farming are not desirable or suitable, and then the question becomes more difficult.

In such cases cover crops should be sown as soon as possible after the main crop that is grown during the summer is gotten out of the way. If this is too late to sow a legume, rye will serve a good purpose, and should be sown in the fall on all land that is to be idle during the winter, unless fall or winter plowing is to be practiced. In the spring the cover crop will have made good growth and when turned under will be of value to the crops that are to follow. Nature has proven to us that this plan works out successfully and therefore we should try so far as it is practical to follow it.

Indiana.

C. H. WHEATLEY.

THE MICHIGAN BEAN CROP.

It is generally conceded that the Michigan bean crop is short from one million to one and a half million bushels, as compared to the crop of 1913. A conservative estimate would be a shortage of 20 to 25 per cent, based on appearances in the field and actual threshing. The United States government estimate was made some time ago at normal (eight-year average) in this state, which is a gross error, or rather an estimate made before damage by blight and other conditions was apparent.

Several influential dealers have remarked that the bean market is in the hands of the grower. In other words, if the crop is put on the market as it can be handled prices will be maintained at not less than a \$2 basis at the elevators.

The food value of beans, as compared to flour and meat prices, and also cost of production, should not go below four cents per pound to the grower. I enclose clipping from a paper published in the center of one of the best bean growing sections of Michigan. Much damage was done to beans in the northern belt by wet weather.

Several conferences were held this summer with bean growers and a representative from the Department of Markets at Washington. A tentative plan was agreed upon for the organization of the Michigan bean growers. This body would thoroughly know the acreage and yield, together with the general market conditions. The plans embraced some of the ideas of the lima bean growers of California. The price of beans would be made in accordance with conditions and maintained by conservative marketing. The European war, with the advance in bean prices at that time, together with the cotton situation, has prevented the United States agents of marketing from giving the Michigan bean situation attention as promised.

If Michigan farms were placarded with "Beans \$2.25 per bushel for 1914" as the railroads have been with "safety first," the price would be maintained. If 50 bean growers would meet at some central point in Michigan within the next two or three weeks, the situation could be staged to accomplish at least as much as the cotton growers of the south have done. When one sees the splendid organization of the Michigan Bean Jobbers' Association, who would as a rule prefer a safe merchandising proposition to a speculative business, and then realizes that the bean jobbers' association has no allies among the farmers in accomplishing what would be mutually desirable and gainful, he wonders, will it always be?

Shiawassee Co. J. N. McBRIDE.

Practical Science.

DISINFECTION AND DISINFECTANTS.

BY FLOYD W. ROBISON.

The modern way in the treatment of diseases and in the destruction of insect pests is the employment of suitable disinfectants, and other means of disinfection. Surgery is impossible without disinfectants. The combating of the spread of contagious diseases is scarcely possible without the employment of effective disinfection. It may thus be seen that disinfection and the employment of disinfectants has followed closely on the heels of bacteriologic discoveries. The scientist working in his laboratory depends upon disinfectants for his security against infection. The surgeon employs disinfectants to prevent infection in the operating room, infection not alone of the operator but of the patient as well. The health officer employs disinfectants as disinfection is compulsory in cases of epidemics of contagious diseases to prevent further spread of the contagion. The employment of disinfectants has been one of the distinct marks of the advance of civilization.

Many Kinds of Disinfectants.

There are a great many kinds of disinfectants, some working on one principle, and some on another. Some disinfectants are exceedingly toxic if taken internally by man or animals, others in small quantities are not exceedingly poisonous. Probably one of the most efficient disinfectants in use as far as its activity against bacteria and germ life is concerned, is bichloride of mercury, sometimes called corrosive sublimate. Its exceedingly poisonous nature, however, has made its general employment unsafe and accordingly undesirable. Probably as satisfactory a disinfectant as has ever been used is carbolic acid, or phenol, as it is chemically known. This product, a product of the distillation of coal tar, has enjoyed a world-wide reputation as an excellent germicide.

Two General Classes of Disinfectants.

In this connection it may be well to state that disinfectants generally are divided into two distinct classes; those which exert their primary influence on bacteria and germ life are called germicides; those which are intended especially for the repelling of insects are known as insecticides. Sometimes the disinfectant is both a germicide and an insecticide, sometimes simply a germicide and sometimes simply an insecticide. Bichloride of mercury, or corrosive sublimate, is primarily a germicide although it is destructive as well to certain forms of insects. Carbolic acid is also a germicide and in many respects it is likewise an insecticide. Formaldehyde is usually called a germicide alone and little value is given to it as an insecticide.

Coal Tar Disinfectants.

From an agricultural point of view one of the most interesting classes of disinfectants which have been offered for sale are the general classes known as creosote oil and coal tar disinfectants. These products as a rule consist of more or less crude creosote oil combined with a combination of rosin and soda solution. This is essentially, it will be seen, a solution of creosote oil in rosin soap. Of course, soap itself has a certain disinfecting value, but for certain purposes creosote oil has been found to be very efficient as an insecticide and in some respects as a germicide as well. Several years ago when the movement of cattle throughout the country became quite general, Congress placed under the jurisdiction of the Bureau of Animal

Industry certain powers with reference to the control and standardization of certain disinfectants used to eradicate insect pests and the accompanying diseases from live stock in transit from state to state.

The Texas Fever Tick.

It was found that a certain tick, a parasite on the Texas cattle, was the agent which carried the germs of the Texas fever from one cow to another and it was primarily for the purpose of eradicating this disease that this power was placed in the hands of the government. The method in vogue to most effectively rid stock of this pest was to dip the cattle in a dilute solution of creosote oil disinfectant. Creosote oil used for this purpose contains varying quantities of a coal tar acid known as cresylic acid. Cresylic acid is analogous in a general way to carbolic acid and while perhaps as effective, and perhaps more so, than carbolic acid as a germicide it does not seem to have the toxic properties so generally accredited to carbolic acid. Cresylic acid, therefore, rapidly grew in favor as an agent in the dipping of cattle and creosote oil containing varying quantities of this cresylic acid became the general product employed for this purpose.

Strength of Solution.

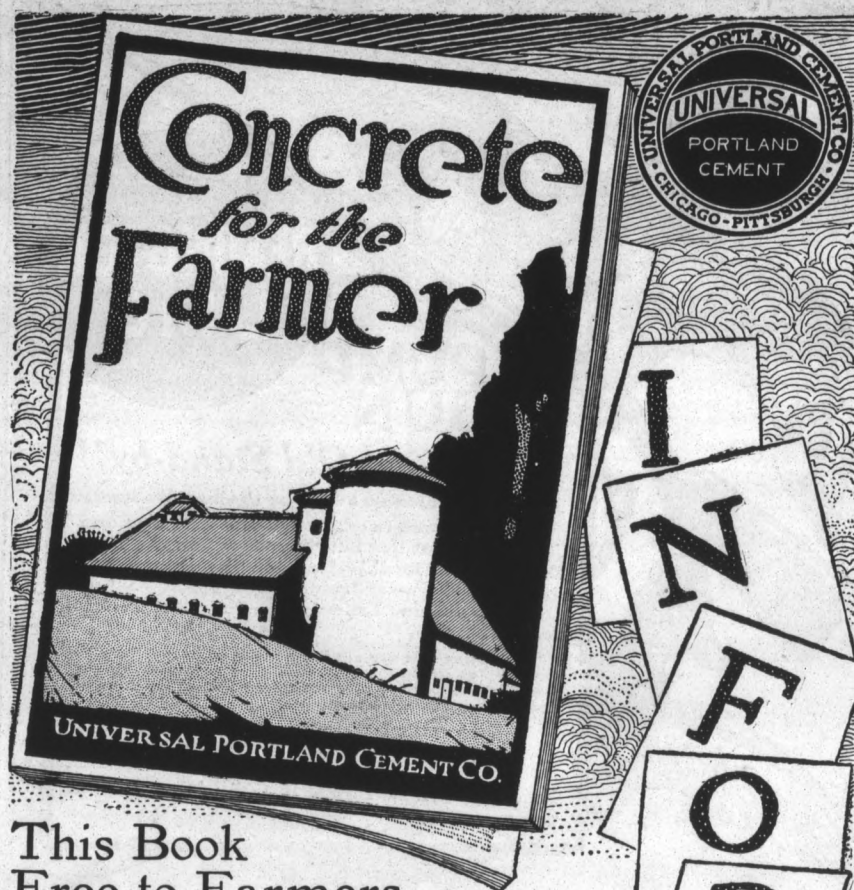
It was found by the government that a solution in water containing about 0.2 per cent of cresylic acid and about 1.00 per cent of coal tar hydrocarbons was a very effective agent for combating the Texas fever tick, and as many manufacturing companies began to place upon the market this product steps were taken early by the government to standardize all these products which were used for the above named purposes. Manufacturers accordingly were asked to submit their product to the Bureau of Animal Industry and upon analysis by the Bureau they were given permission to use their product for official dipping, providing they would use it in the proportion directed by the government. These products therefore, when conforming to the above requirements became more or less official under the protection of the United States Bureau of Animal Industry.

Germicidal Power.

In the natural progress which has been made with these products there has arisen a demand to know just how efficient they were for germicidal purposes, and the difficulty arose of ascertaining some way of measuring the real germicidal power of the disinfectants. Bichloride of mercury, for example, is considered an efficient disinfectant when a 1-10 per cent solution, or one part in 1000 solution, is prepared. Carbolic acid requires a much stronger solution for efficient disinfection. One disinfectant will be effective apparently in a 1-100 per cent solution applied to typhoid germs and much more effective when applied to some other germs. So that a difficulty arose in establishing any standard way of measuring the comparative disinfecting values of two products. Probably the most common disinfectant in use is carbolic acid, and the public generally has some idea of the value of carbolic acid as a disinfectant because at one time or another nearly every person has employed carbolic acid in this capacity. If, therefore, the disinfectant in question could be given some rating alongside of carbolic acid it was supposed that its real value would be most thoroughly appreciated by the public.

(Continued next week.)

Subscribe for the Michigan Farmer to May 1, 1915, for only 25 cents. This is for new subscribers only.



This Book Free to Farmers

It is a book of practical information on the building of concrete farm structures, large and small; gives simple, direct instructions which anyone can follow.

We have a copy of this book for every farmer who is interested in building of concrete. Yours will be sent on request. Write for it now. Your name and address on a postcard will do.

UNIVERSAL PORTLAND CEMENT CO.

CHICAGO, - - - 208 South La Salle St.
PITTSBURGH, - - - - - Frick Bldg.
MINNEAPOLIS, - Security Bank Bldg.

Plants at Chicago and Pittsburgh
Annual Output 12,000,000 Barrels



Lightest Draft—Easiest Handled



Wherever foot lift plows are used the Emerson leads for lightness of draft, ease of handling and length of service. The

Emerson Foot Lift Plow

is the *lightest draft* plow made and the most durable. Load is close to the team and carried on the wheels. A boy can easily operate the Emerson.

The Emerson Foot Lift Feature Made a New Era in Plowing Efficiency

Send for free book telling you how your feet handle the plow, leaving your hands free to manage the team.

Emerson-Brantingham Implement Company (Inc.)

782 W. Iron Street

Plows, Harrows, Pulverizers, Listers, Spreaders, Planters, Drills, Cultivators, Mowers, Hay Tools, Baling Presses, Corn Shellers, Gas Engines, Farm Tractors, Steam Traction Engines, Threshing Machines, Road Rollers, Wagons and Vehicles.

Rockford, Illinois

40919

EAR CORN
WHEAT
OATS
SMALL
GRAIN

It will pay you back in six months. Buy the mill that will grind your crops coarse or fine in less time, with less power and at less cost. A trial will prove that the most money can be saved and the best results obtained with the

SUPERIOR FEED GRINDERS

Built for service. Can't get out of order. Largest capacity for power used. Self sharpening. Automatic force feed prevents choking. Double grinding rings. Money back if you say so. Write today for Free Catalog K and samples.

SUPERIOR MFG. & MILL CO. 68 East Street Springfield, Ohio



When Writing to advertisers please state that you saw their ad. in The Michigan Farmer.



REMINGTON UMC

PUMP GUN

The "Good Old Stand-by"

The gun that users swear by against all comers. Pick out some friend you know who uses one. Ask him about it. Let him show you the Solid Breech, Bottom Ejection—shells, smoke and gases go down away from your face; three Safety Devices, simple Take-down, the Hammerless feature.

Then when you are ready to buy it go to the Remington-UMC dealer in this community. You'll know him by the Red Ball Mark of Remington-UMC—the Sign of Sportsmen's Headquarters.

To keep your gun cleaned and lubricated right, use Rem Oil, the new powder solvent, rust preventative and gun lubricant.

Remington Arms-Union Metallic Cartridge Co.
299 Broadway. New York

POTATO CRATES.

Material, elm. One nests inside of two. Corner posts flat towards contents. Sample crate in flat postpaid for 25 cents in stamps. Prices as follows:

	Nailed.	In flat.		Nailed.	In flat.
25 crates.....	\$3 50	\$2 90	100 crates.....	\$12 50	\$10 50
50 crates.....	6 60	5 60	500 crates.....	60 00	50 00

Terms cash. We do not pay freight.

M. H. HUNT & SON, Lansing, Michigan.

FIELD SEEDS—Medium, Mammoth, Alsyke, Alfalfa, White and Sweet Clover, Timothy, Millets, Buckwheat and Field Peas. YOUNG-RANDOLPH SEED CO., Owosso, Michigan.

FALL Planting is BEST for all kinds of Fruit and Shade Trees, Shrubs, Grape, Currants, Gooseberries, Blackberries, Sweetbearing Strawberry Plants, Bulbs, etc. Send for Free Catalog. ERNST NURSERIES, BOX 2, EATON, OHIO.

SEED WHEAT. GOEING WHEAT—A bearded variety of red wheat. Splendid yields, very hardy, stiff straw, never lodges. The best wheat I ever grew. Send for sample and prices.

COLON C. LILLIE, Coopersville, Michigan.

LIME—You should get the highest grade of limestone manufactured. Buy it upon the basis of analysis. We manufacture the highest grade pulverized limestone sold in Michigan. Let us prove it. Ask for sample and analysis.

CAMPBELL STONE CO., Indian River, Mich.

LILLIE'S SPECIAL BRANDS
BUFFALO FERTILIZER

Made from best material. Always reliable. Lime, Potash, Acid Phosphate, Nitrate of Soda. Agents wanted in unoccupied territory. Ship direct to farmers in carlots. Fertilizer questions answered and farm soil surveys made on request.

Colon C. Lillie, Sales Agt., Coopersville, Mich.

LIME

Pulverized magnesian lime rock for "sour" soils. Write for LOW Summer Prices direct to you from Muskegon and Benton Harbor, Michigan.

LAKE SHORE STONE CO., Milwaukee, Wis.

FINEST TREES WE'VE EVER HAD

TREES of all kinds—including apple, peach, pear, plum, cherry, apricot and quince—have had an unusually good season at the Hobbs Bridgeport Nurseries. Tilling, fertilization and careful attention have produced the finest growth we've ever had.

SINCE 1812 members of the Hobbs family have been engaged in the nursery business in Indiana, winning and holding the confidence of patrons through a century by good, honest service.

FALL PLANTING—Get ready now. Order your Hobbs trees, fruits, shrubs, vines, roses, bulbs, perennials, etc. Write for illustrated catalog "A" today.

C. M. HOBBS & SONS,
Bridgeport Nurseries,
Bridgeport, - Indiana.

MALONEY TREES

Fruit, Nut, Ornamental Trees, Vines, Bushes and Shrubs. We grow our own stock, and furnish only fresh dug trees guaranteed true to name and free from disease. Take advantage of our 29 years of nursery experience. You will find Maloney Quality plus Maloney personal service means money to you. Big Fall Catalog sent free.

Maloney Bros. & Wells Co., Box 41, Danville, N. Y.

READ THIS

The Department of Soils of M. A. O. reports that the roots of a maximum crop of red clover in one acre of ground contains as much nitrogen as would be added to the soil by an application of 7 tons of barnyard manure. If the soil contains acid a maximum crop of clover cannot be grown.

Our Pulverized Lime Stone will remove acidity from the soil. 98 % carbonate. Write us for prices delivered at the nearest railroad station.

GUS. F. SMITH, CO., Inc., Detroit, Mich.

That Red Ball Means Longer Wear—Greater Comfort

"Ball-Band" Rubber Footwear, the kind that bears the Red Ball, is made over a natural last, to make a snug, easy fit more certain. Points that are weak on other footwear are reinforced and made the strong points of "Ball-Band."

Look for the Red Ball

"BALL-BAND"

You can expect more days wear from "Ball-Band" Rubber Footwear. Our free booklet, "More Days Wear," will tell you how to get all this value out of the goods. Send for it. If no store in your vicinity sells "Ball-Band" write us, mentioning your dealer's name, and we will see that you are fitted.



MISHAWAKA WOOLLEN MFG. CO.
319 Water St., Mishawaka, Ind.

"The House That Pays Millions for Quality"

Horticulture.

HOW WE KEEP APPLES.

We have had considerable experience storing apples for home use and have learned many things which we believe will be of advantage to others desiring to keep apples this winter.

In the first place we found that apples from thrifty growing trees will keep longer than apples of the same variety grown on old declining trees. We had several Spitzenberg trees that when in their primal vigor grew apples that kept well until spring—equally as well as Baldwins—but when they became old, many of the apples would be found rotting on the trees, and the sound ones when picked, and given the best of care, would decay sooner than when the trees were young. They seemed to have lost that peculiar property we call the "keeping quality," which is absent from summer and fall apples.

The Time to Pick for Keeping.

Apples to be kept until spring should be picked as soon as ripe; that is, when full grown, and the seeds black. If left on the trees after this they are sure to be more or less damaged for keeping. Nearly all farmers put off apple gathering too long, and the result is that many of the largest and finest flavored fruit falls off, gets bruised and is wasted. Those which still hang on the trees become over-ripe, and sometimes scalded by the hot sun. Until ripe, the apples exposed to the sun will be the highest flavored, but after this the sun is a damage and the apples should be picked and placed in a shade. They should also be picked before there is any likelihood of a frost. Our experience is that one hard frost will injure the keeping quality of apples.

We had a variety of winter apples called the Fall Pippin which, under favorable conditions would keep until June, and for a wonder bruised apples would keep nearly as well as those carefully handled. The juice was thick and sticky. A bruise, and even a wound in the skin, dried quickly without causing a rot. I have seen apples of this variety with a small piece knocked entirely out by falling on a stone, that had healed over and was sound in the spring. They were good eating apples and excellent keepers.

Care After Picking.

As soon as picked our apples are taken to the storehouse and emptied carefully on a clean floor. They are not piled up high but are spread as much as possible. The shutters are closed to keep out the sun, and to keep the temperature as cool and even as possible. Late in the fall, on a pleasant day, the shutters are opened and the apples are closely sorted. The large, fair apples are put into bags; the small ones, and those with rotten spots, are taken to the basement of the barn where they are kept without freezing until fed out to the cows and pigs.

The bags are stood up together, old carpets are spread over them to prevent freezing, and they are left in the storehouse until there is every appearance that winter is just at hand. A pit is made, only a few inches deep, 15 feet long and three feet wide. Straw is placed in the bottom, the apples emptied on it until it is shaped like a house roof. Straw is placed on the apples and on the straw about five inches of dirt. A roof of 16-foot boards is made by beginning at the bottom, lapping them on each other, and slightly nailing. The roof prevents the apples from getting wet by rains or melting snow and answers in the place of more dirt to prevent freezing. Apples should not be buried as deeply as

potatoes. They can stand cold weather better.

Some people may not believe it, but apples can be frozen as solid as rocks when buried, and if left there until the frost comes out of the ground in the spring, will be perfectly sound, and as palatable as if they had not been frozen. I opened a hole of apples one winter and found them frozen so hard that they rattled like round stones as they rolled down. I closed the hole tightly with dirt and when opened in the spring after the frost came out of the ground, were found to be as sound and good tasting as when buried. Apples kept in the kitchen cellar are kept as cool as possible without freezing. Laid on the shelves so they don't touch each other none will rot. Apples that are buried will taste fresher and better than those kept in the cellar.

Pennsylvania. J. W. INGHAM.

PEARS FOR WINTER USE.

During the past few years large quantities of pears have been sent to New York, and placed in cold storage for winter use. Western pears are not uncommon in the New York markets on fruit stands during December, January, and later. Winter Nellis pears packed in boxes were seen one winter in the salesrooms of a well-known commission house in New York. Each pear was wrapped neatly and carefully packed in boxes. This fruit had been in cold storage, but there was little or no sale for it. The merchant said that one year ago the same party who sent these pears from his Colorado orchard sent others, but they were poorly selected, badly graded and not well packed. As a consequence they were not satisfactory to the buyers. Last winter the fruit was in much better condition, more carefully graded, but the same parties who bought the previous winter stock avoided it, and would not take them at any price.

The merchant said he had found it practically impossible to dispose of the fruit. In fact, several boxes on the floor were consigned to various fruit dealers as a compliment from the commission house. The dealer said he found this necessary in order to convince his customers that this fruit was of better quality than fruit of the same variety sent them the previous winter. He said that they experienced much difficulty every year in matters of this sort, as some fruit growers seem to think they get the fancy prices for anything that was covered with paper.

Anjou and Winter Nellis pears properly put up, will be eagerly bought up at a good price in the New York market next January. If fruit growers would pay more attention to the picking, handling and marketing of late varieties of pears, there is every reason to believe there would soon be a good market demand for them. The pears above mentioned of medium size often sell in New York markets on local fruit stands in December at 25 to 60 cents per dozen.

New York. S. VANAKEN.

Although South America imports about \$15,000,000 worth of canned goods annually, the United States furnishes only about 18 per cent of the total, of which the principal item is canned salmon. That the sales of canned goods in this field can be greatly increased is the opinion of Commercial Agent E. A. Thayer, of the Department of Commerce, who recently completed an investigation of the Latin-American markets for this line of goods.

Live Stock.

THE DIAGNOSIS OF HOG CHOLERA.

The positive detection of hog cholera is not always easy. With some infectious diseases the diagnosis is made possible either by finding the germ or by some reliable and specific test. With hog cholera this is not the case. The diagnosis of hog cholera is usually the result of one's judgment based on the study of the history of the case, the surroundings and the appearance of a case, both before and after death. The diagnosis even then is only an opinion and is either confirmed or rejected by future developments. We believe in this country that there is only one highly contagious disease of swine and we call this disease hog cholera. The first indication of the disease could be determined by the thermometer since the temperature rises from about 102 degrees (normal) to 105 degrees or more before any other marked symptoms appear. Such a rising temperature, however, and the following symptoms also, may be due to some other cause. The farmer may first notice great thirst on the part of the sick pig, an inclination to lie in the bedding, an indisposition to move, drooping of the ears and tail and a roughness of the coat. The pig may stagger when walking and may suffer from either constipation or diarrhea or both alternate. The eyelids may be glued together by the discharges of inflammation and in some cases the pig may vomit. Later the skin, especially of the abdomen and ears, may become discolored, either bluish or reddish, and the pig becomes greatly emaciated and perhaps coughs.

At times the tail, ears, snout and even portions of the skin may slough off. In the meantime a greater portion of the herd may become affected. There is no test that can be applied in the laboratory that is of any assistance in the diagnosis at this time. To make the diagnosis more sure a careful post mortem examination of the sick pig, or even of a number of the sick animals may be made. Since hog cholera is a disease primarily of the blood, we will expect to find hemorrhages, very minute or larger, scattered throughout the body, especially of the kidneys, of the heart, the lungs or on the smooth membranes that cover all the organs.

That lymph nodes which are distributed throughout the body and the spleen usually show a reddened condition due to a disturbance of the blood. Later there may be ulcers in the large intestine and the lungs may be affected with pneumonia.

When such a disease as we have described appears in a herd we make the diagnosis of hog cholera. The sooner we can determine hog cholera the more certain we are to benefit thereby. The use of hog cholera serum not only furnishes us the only preventive treatment that we know, but it also serves as a method of diagnosis. In other words, if we suspect cholera as a result of the symptoms which I first indicated, the use of the serum on all the healthy hogs should prevent the further spread of the disease. If it does not, we are inclined to conclude that the disease is not hog cholera. We think this conclusion justifiable in those cases where potent serum is properly applied. This method of treatment should be always adopted, the serum should be procured through some reliable source and under no circumstances should dependence be placed on any other preventive treatment than the serum made according to the method devised by the United States government. We know of no cure for this dis-

ease. A reliable veterinarian may give helpful prescriptions and advice along the lines of diet and care that may assist nature, but the farmer should beware of quacks and patent medicines that have not been proven by disinterested parties to be effective. The use of the serum alone and the destruction of all the sick hogs together with thorough cleaning and disinfection of premises should permanently check the spread of hog cholera and prevent its reappearance on the unaffected farm and what is of equal importance, prevent its spread throughout the community. The serum should be used early in the course of the disease and affected hogs should be isolated so that dogs, birds, as well as careless individuals cannot have access to them or to their discharges.

There is no cure for hog cholera except nature, and she does very indifferent work in this connection. Hog cholera can be prevented and its spread can be checked by adopting methods similar to those adopted in the prevention and control of contagious diseases of man. Do not place too much confidence in serum and never use serum unless it is known to be made by a reliable laboratory and never fail to impose a quarantine on your own unaffected hogs and then isolate and disinfect. No damage is done if it turns out that the disease is not cholera when these methods are adopted and while the serum will do no good with other diseases, the other methods suggested will be beneficial. Mich. Ag. Col. WARD GILTNER.

LIVE STOCK AWARDS AT THE STATE FAIR.

Poland Chinas.

All first premiums in this class were won by C. E. Simons & Son, Geneva, Ind., who were the only exhibitors.

Chester Whites.

Boar, 2 yrs. or more—Adams Bros., Litchfield, Mich. 1st.
Boar, 18 mos. and under 2 yrs.—Adams Bros., 1st; Geo. Ineichen & Sons, Geneva, Ind., 2nd.
Boar, 12 mos. and under 18 mos.—Geo. W. Heskett, Fulton, O., 1st; Adams Bros., 2nd.
Boar, 6 mos. and under 12 mos.—Heskett, 1st and 2nd; Adams Bros., 3rd.
Boar, under 6 mos.—Heskett, 1st and 2nd; Ineichen & Sons, 3rd and 4th.

Sow, 2 yrs. or over—Ineichen & Sons, 1st; Adams Bros., 2nd; Heskett 3rd.

Sow, 18 mos. and under 2 yrs.—Ineichen & Sons, 1st; Heskett, 2nd; Adams Bros., 3rd and 4th.

Sow, 12 mos. and under 18 mos.—Heskett, 1st and 2nd; Ineichen & Sons, 3rd and 4th.

Sow, 6 mos. and under 12 mos.—Heskett, 1st, 2nd, 3rd and 4th.

Sow, under 6 mos.—Ineichen & Sons, 1st; Heskett, 2nd, 3rd and 4th.

Exhibitors' Herd—Ineichen & Sons, 1st; Heskett, 2nd; Adams Bros., 3rd.

Breeders' Herd—Ineichen & Sons, 1st; Heskett, 2nd; Adams Bros., 3rd.

Four of either sex, get of same boar—Ineichen & Sons, 1st; Heskett, 2nd; Adams Bros., 3rd.

Four of either sex, produce of same sow—Heskett, 1st; Adams Bros., 2nd.

Large Yorkshires.

Boar, 2 yrs. or over—W. H. Fisher, Columbus, O., 1st; F. E. Kite, St. Paris, O., 2nd.

Boar, 18 mos. and under 2 yrs.—Kite, 1st; Fisher, 2nd.

Boar, 12 mos. and under 18 mos.—Kite, 1st; Fisher, 2nd.

Boar, 6 mos. and under 12 mos.—Fisher, 1st.

Boar, under 6 mos.—Fisher, 1st and 4th; Kite, 2nd and 3rd.

Sow, 2 yrs. or over—Kite, 1st and 2nd; Fisher, 3rd and 4th.

Sow, 18 mos. and under 2 yrs.—Kite, 1st and 3rd; Fisher, 2nd and 4th.

Sow, 12 mos. and under 18 mos.—Kite, 1st; Fisher, 2nd and 3rd.

Sow, 6 mos. and under 12 mos.—Fisher, 1st.

Sow, under 6 mos.—Kite, 1st and 2nd; Fisher, 3rd and 4th.

(Continued on page 18)

Studebaker

WAGONS BUGGIES HARNESS



Bought his Studebaker when Grant was president

RIGHT after General Grant had been elected, Mr. Thomas North, of Andover, Ohio bought a Studebaker Farm Wagon. He has been using it ever since and this is what he writes to Studebaker:

"I think I have the oldest Studebaker Farm Wagon in this part of Ohio. It was bought in the Spring of 1872 from Mr. Sed Wade, then your agent for Andover.

"For several years it was used on heavy loads and has been in constant use on a farm of 140 acres ever since.

"In the past month I have loaded with coal up to 30 hundred, hauling the same three miles over bad roads.

"My Studebaker has never been to the shop for repairs, and it is good for years yet."

41 YEARS OF SERVICE

—and faithful service too, for you will notice that Mr. North's Studebaker Wagon has never been to the shop for repairs.

It is the way Studebaker Wagons are built that makes them last. Air dried timber and tested iron go into Studebakers and

skilled workmen see that they go in right.

We build wagons today just as strong as we built them sixty years ago. And the wagon that lasts longest is the cheapest wagon in the end.

Studebaker Buggies and Harness are also made to last.

STUDEBAKER

NEW YORK
MINNEAPOLIS

CHICAGO
SALT LAKE CITY

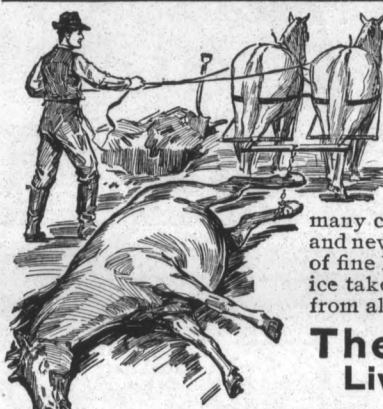
DALLAS
SAN FRANCISCO

KANSAS CITY
PORTLAND, ORE.

DENVER

Adv. 210

Studebakers last a lifetime



What will you take for your Dead Stock?

LIVE STOCK is always valuable but dead stock seldom finds a ready market. These cool nights are responsible for many cases of pneumonia; imperfectly cured hay and new grain are killing thousands of dollars' worth of fine horses and cattle; winter with its sleet and ice takes its toll with broken legs. Protect yourself from all such losses by a policy in

The Indiana and Ohio Live Stock Insurance Co.

"The Company with a Record"

Prompt settlement of all claims. Ample resources. Liberal terms. Low but adequate rates. No arguments or unpleasantness. Policy covers death from all causes, disease as well as accident. Remember that this is the one Company that has never gone back on its policy-holders, even during the years of pestilence and epidemic. See our local agent or write direct to The Indiana and Ohio Live Stock Insurance Company, 44 Main St., Crawfordsville, Ind.

Grinds Wet Grain Without Clogging

Oat hulls and corn in husk ground fast as dry grain—also clover, alfalfa, etc. Shreds grain instead of mashing. 1 set of burrs grinds 1000-3000 bu. **LETZ FEED MILL** Self Sharpening Silent Burr Speedy, silent, light-running, economical. Tell us H. P. of your engine and we'll show you how to get this mill for ten days free trial. Letz Mfg. Co., 210 East Road, Crown Point, Ind.

BUY NOW AND PAY LATER

Don't deny yourself the benefits of the best Silo on earth! Your credit is good. Buy now—pay later after Jack Frost has been here. Write for our Special "After Jack Frost" Offer on Silos and Silo Filler. A big thing for gritty men—GET IT NOW! **Kalamazoo Tank & Silo Co.** Kalamazoo, Mich.

Stop Poisoning Your Hogs!



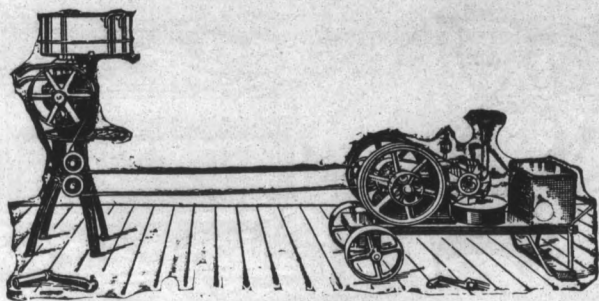
Cholera germs can't injure a hog's hide. They get into his system through his mouth. Therefore you must keep his feed and water clean. It's impossible with ordinary wooden or sheet-iron troughs—they're too full of breeding places for cholera germs—but with **The Lehr Sanitary Hog Troughs** it's easy, because they are cast in one piece from high-grade iron. Indestructible. Unaffected by frost. No seams, no rivet or bolt holes for cholera germs to breed in. Bars prevent crowding and lying in troughs. LEHR troughs pay for themselves many times by protecting your hogs against disease. Save feed and labor. Write for booklet and prices.

THE LEHR AGRICULTURAL COMPANY,

Dept. 30

FREMONT, OHIO

International Harvester Cream Separators



THERE is money enough in the one advantage of the saving in cream and butter fat, to pay for a cream separator the first year. This is specially true if you buy a close skimming, durable International Harvester cream separator—Lily, Bluebell, Primrose or Dairymaid—which leaves less than a drop of cream in each gallon of milk. These separators have all the points which make cream separators good. They have the balanced bowl, the self-adjusting neck bearing, the tool steel spindles, the bronze bushings, the spiral gears, the low supply can, the high skim milk spout, and the open, sanitary base, without which no separator can be satisfactory.

Some dealer near you handles I H C separators. If you do not know, write us and we will tell you who he is. We will also send you our cream separator catalogue which tells you why it pays so well to buy an I H C separator.

The I H C Line

GRAIN AND HAY MACHINES
Binders, Reapers
Headers, Mowers
Rakes, Stackers
Hay Loaders
Hay Presses
CORN MACHINES
Planters, Pickers
Binders, Cultivators
Ensilage Cutters
Shellers, Shredders
TILLAGE
Peg, Spring-Tooth,
and Disk Harrows
Cultivators
GENERAL LINE
Oil and Gas Engines
Oil Tractors
Manure Spreaders
Cream Separators
Farm Wagons
Motor Trucks
Threshers
Grain Drills
Feed Grinders
Knife Grinders
Binder Twine

International Harvester Company of America
(Incorporated)

CHICAGO

USA

Champion Deering McCormick Milwaukee Osborne Plano

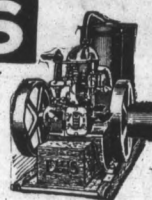
RUN ON KEROSENE

6c for 10 Hours

Ellis Engines develop more power on cheap lamp oil than other engines do on high-priced gasoline. Will also operate successfully on distillate, petrol, alcohol or gasoline. Only three working parts.

ELLIS ENGINES

have patent throttle giving three engines in one; force-feed oil; automobile type muffler; ball-bearing governor adjustable while running and other exclusive features. **MAKE US PROVE IT.** Every engine sent on 30 days' approval. 10-year Guarantee. Special factory prices on all sizes. Thousands of satisfied users. Write for big new 1914 catalog and special discount prices.



We Pay Freight.

ELLIS ENGINE CO., 110 Mullett St., Detroit, Mich.

DO YOUR OWN SHREDDING

with a **ROSENTHAL Corn Husker and Shredder**. No. 1 Cyclone. Most economical and satisfactory way of handling your corn crop. No delay, no extra help. Do it in your own spare time. Only 6 to 8 h. p. to run it. Built on same sturdy, successful lines as our larger machines. Absolutely safe to operate. 19 years in the field. **SOLD ON TRIAL** YOU TAKE NO RISK. Write today, stating horsepower of your engine. **ROSENTHAL CORN HUSKER CO.** Box 2, Milwaukee, Wis. Also makers of Feed Cutters and Silo Fillers.

DEHORNING STOPS LOSS. Cattle with horns are dangerous and a constant menace to persons and to other cattle. Dehorn quickly and easily with a **KEYSTONE DEHORNER**. All over in 2 minutes. Not a harsh method. A clear, clean cut. Cows give more milk; steers make better beef. Send for free booklet. **M. T. Phillips, Box 128, Pomeroy, Pa.**

PUMP GRIND SAW Made for Hard Use. Wood Mills are Best. Engines are Simple. Feed Grinders, Saw Frames, Steel Tanks. CATALOGUES FREE. AGENTS WANTED. Perkins Wind Mill & Engine Co. Est. 1860. 135 MAIN ST. Mishawaka, Ind.

Michigan Livestock Insurance Co. Capital Stock—\$100,000. Surplus—\$100,000. Home Office—Charlotte, Michigan. Only Home Co., in Michigan. COLON C. LILLIE President. H. J. WELLS, Secretary-Treasurer.

Every Good Dairyman's Pride. A clean comfortable cow, housed in a sanitary barn. You'll be prouder of your barn after it is equipped with **HARRIS Stalls & Stanchions**. They never wear out, never get out of order. The simplest and most serviceable devices of their kind. A comfortable cow gives more and better milk. This means bigger profits from your herd. Write for our **Illustrated Catalog FREE**. Tells all about our labor saving barn equipment. Ask for it on a post card today. **The Harris Mfg. Co., Box 150 Salem, Ohio**

WHOLESALE FEED Save your money. Ask for price list. Everything in Feed. **THE BARTLETT CO., 100 Mill St., Jackson, Mich.**

Dairy.

CONDUCTED BY COLON C. LILLIE.

RESULTS IN FEEDING DRY ROUGHAGE.

For several years silo manufacturers and writers in farm publications have been telling us that it is necessary to add succulency to the ration fed our cows, if we would have them produce the maximum amount of milk at least possible cost. I believe that good ensilage is an economical feed, but I also believe that every winter a large number of cows are compelled to eat silage that should be condemned, as unfit to feed cows producing milk for human consumption.

I have been selling milk for ten years and have fed practically all corn in the bundle as it come from the binder. Cleaning stalks out of the manger is a disagreeable job but it takes but a few minutes from every day. I am fortunate in having plenty of barn room or I might think more favorably of a silo. During the year ending September 1 I milked seven cows. One of the cows, a heifer, calved in June, three cows in August, one three-year-old in September, one cow in October and a three-year-old in December, and they produced as follows:

	Lbs. Sold.	
September	4145 @ \$1.60	\$ 66.32
October	5090 @ 1.75	89.09
November	6072 @ 1.75	106.17
December	1463 @ 1.85	138.07
January	7703 @ 1.80	138.65
February	6450 @ 1.82 1/2	117.61
March	6793 @ 1.75	118.87
April	5601 @ 1.30	72.81
May	5124 @ 1.15	58.92
June	2788 @ 1.10	30.66
July	806 @ 1.37 1/2	11.08
August	602 @ 1.47 1/2	8.87
Total	57,437	\$957.12
Fed to calves	2,500	35.00
Used in house	1,500	25.00
Total	61,437	\$1,017.12

The above represents the price of milk delivered. The milk tested 3.7 per cent butter-fat. Valuing five calves raised at \$5 at birth brings the above total up to \$1,052.12. My oldest boy is nine years old. With his help and eight to ten dollars' worth of outside help we get through the season.

Now we are milking seven cows, one of them a three-year-old and another a two-year-old. They are producing 300 pounds or better, per day. I am feeding pretty close to 100 lbs. per day to six calves. The 300 pounds would bring better than \$4.50 per day delivered.

Oakland Co. H. PETERS.

MORE ABOUT THE LATH AND PLASTER SILO.

In regard to your plan of a lath and plastered silo, which you described in the August 22 issue, I would like to have more of your information about it. Would the lath be all right at half or three-quarters of an inch by three-inch? I have oak I could use for that purpose. Is there any danger of moisture rusting the nails? Would it be good to give it a coat of plaster on the outside between the studdings and then put on the siding? Should there be any airholes above the sill to give it an air circulation?

Iosco Co. O. F.

Nearly every kind of lath imaginable has been used for these silos with success. It makes but little difference about the kind of lath, anything that will hold the cement mortar. For one silo we picked up pieces of boards, the waste from building a barn, sawed them into 16-inch lengths, just long enough to reach from one studding to another, then split them into strips two to three inches wide and nailed them on; this is just as good as any. What we want is a

good smooth surface of cement plaster. The nails will not rust. How can they, no moisture can get to them? The silo can be lathed and plastered on the outside as well as on the inside but it would not be as cheap as half-inch siding. You don't need the tight cement coat on the outside. No airholes are necessary.

SEALING THE SILO WITH SALT.

Has any one had experience with putting salt on top of silage to keep same from spoiling. I either read or heard of it somewhere and would like to try same if there is anything in it. Allegan Co. C. W.

I had my first experience with salt to preserve silage, last year. I had never heard of the practice before that. It certainly is a great help and if thoroughly and properly done will preserve the silage with practically no loss whatever. We tramped the silage thoroughly and smoothed it off fairly well, and then spread on the salt. In one silo we did not put sufficient salt to keep the air out, and a little of the silage spoiled. In another we put more salt and there was very little loss. Had we taken a little more pains to tramp the top, and been a little more careful in smoothing the top, I am confident there would have been no loss. It takes at least two barrels of salt for a silo 15 feet in diameter. The salt, however, is not wasted, for the extreme top of the silo can be fed gradually and the salt all utilized.

USING A TANK HEATER.

We are building a shed with a tank house in one end of it and are wondering if it will be better to build a cement tank and use a tank heater or to have a tank that we can let the water out of in the winter and thus give the cows fresh water right from the well. Some men say cows do better on warm water and some claim they do not.

Dundee, Mich.

H. J.

If your cows have to go outdoors in the winter time to drink, I think it would be better to have a tank full of water and then heat it with a tank heater. On cold days water from the well will be most too cold. You will not water them more than once or twice a day and the cows will drink so much of it in the cold, cold water from the well, that it will tend to chill them. If your cows are in good warm stables then it would be different. I should think then that water fresh from the well, or of a little cooler temperature, would be relished more than the warm water. There is another thing to be considered, and that is that it is not always convenient to pump the water fresh. Sometimes we have many other things to do at the same time, and it is quite a chore to have to pump the water every day fresh from the well for the cattle, but if you have a storage tank it can be pumped with a windmill and you will always have water on hand, and all one has to do is to fire up the tank heater and keep the water warm so that it will not freeze.

CURING COWS LEAKING MILK.

We saw a query from W. F. S. in the Michigan Farmer, with reference to cow leaking milk. We have bought leakers and hard milkers of good quality and have cured them by making a blister of corrosive sublimate and a little grease of any kind. This should be made into a paste and a small amount applied close around orifice of teat. It will soon blister and if let alone will contract and close the opening enough to stop the leaking. This had better be done when the cow is dry.

This remedy will also close up a hole in the side of the teat, although it may need two or three applications to close a bad one. It is cheap and I have used it many times with success. New York. CHAS. HUNT.

Mention the Michigan Farmer when writing to advertisers.

DRAINING THE SILO.

I am going to build a silo. Now I wish to know if I should leave a hole in the bottom of the silo, with a tile leading from it.

Van Buren Co.

W. F. M.

The silo should be as near air-tight as it is possible to make it. Under no consideration leave a hole in the bottom for drainage. If you do, air will enter the bottom of the silo and the result will be a lot of spoiled or rotten silage. A hole near the top of the silo would not be so serious, because you would soon feed down away from it, but an opening for air at the bottom might cause an immense amount of silage to spoil. If you can make your silo so tight that the corn juice will not run out.

ELEVATING BEET TOPS INTO THE SILO.

Saw your article in the Michigan Farmer on putting beet tops into a silo, and if they are put in without cutting, was wondering how you would get them in. There are no silos near our farm and it would be difficult to get a filler. We have about 60 acres of beets and didn't know before that the tops would make silage and as yet we have no silo. If I could find out the particulars at once, I would still have time to put up one. It would save us a lot because, otherwise, we would have to buy a lot of roughage this winter.

Gratiot Co.

P. F. C.

I built one silo for the purpose of storing sugar beet tops. I built it right by the side of the driveway that goes into the barn. This driveway is about eight feet high. Then, when the beet tops are loaded into the ordinary beet rack one can pitch them in so that the silo will be filled about 15 feet without very much trouble. To get it higher than this, of course, they have to be elevated. One year I rigged up an old-fashioned slat carrier and ran this with a gasoline engine. It worked very nicely. Of course, if you could get a man who owned an ensilage cutter to use his machine for this work, you could elevate them with the modern ensilage cutter.

I have an idea that if I have to elevate beet tops again into the silo, that I would rig up a big bucket that would hold one-third or one-half of a load of beet tops and fix up a gin pole with a pulley. Then elevate this with a horse and dump it into the silo. I believe it would work all right and would be an inexpensive way of getting the tops into the silo. It may be it wouldn't work as well as one would think, but I believe it would be the cheapest way that one could elevate the beet tops into the silo.

LINING FOR SILO DOORS.

Is it all right to put tar paper on the inside of the silo doors to exclude the air?

Grand Traverse Co.

E. A. W.

It is not necessary to put the paper over the entire door. Simply put it around the jamb of the door and then shut the door tight against it. In this way the paper acts the same as a gasket for a steam pipe or a gasoline engine cylinder. Of course, if your side doors are only one board thick—ness it would be better to put the paper over the entire surface.

THE NATIONAL DAIRY SHOW.

The Annual National Dairy Show will be held in Chicago, October 22 to 31. During this show everything new and of interest to the dairy interests will be shown. Meetings and conventions of various associations interested in the dairy business will also be held. Arrangements of the meeting of 15 such associations are already made.

A good judging program is arranged and the premiums offered are worthy of the raisers of high quality dairy cows. Students' judging contests are also on the program and the agricultural colleges will have teams there for the competition.

Every day will be a special day. Each dairy breed will have a special day as will also the various dairy and farmers' organizations. For their own benefit dairy farmers are urged to attend this show.

The Tires Men Want You'll Be Glad When You Get Them

You don't know what you miss—you men who are buying other than Goodyear tires.

All this sturdiness, this safety, this trouble-saving—you are bound to demand it sometime. Why not in the next tire that you buy?

How They Excel

It is evident that Goodyear tires excel. They hold top place in Tiredom—outsell any other. And none but the best tire built could do that, after millions have been used.

Their advantages are these:

The No-Rim-Cut feature—which we control—makes rim-cutting impossible. Tires which rim-cut mean enormous waste.

Our "On-Air" cure—used by us alone—ends a major cause of blow-outs. This one

exclusive process costs us \$450,000 per year.

Our rubber rivets—formed by a patent method—reduce by 60 per cent the risk of tread separation.

Our All-Weather tread—used on Goodyears alone—is a matchless anti-skid. It is tough, double-thick and enduring. It is flat and regular, so it runs like a plain tread. It grasps wet roads with deep, sharp, resistless grips. No wheel should be without it.

Say That You Want Them

Say to your dealer that you want Goodyear tires and you'll get them. Then your major tire troubles will be wiped out or minimized. Hundreds of thousands have proved this, and have adopted this Goodyear tire. You'll be glad when we get you to join them.

THE GOODYEAR TIRE & RUBBER COMPANY, AKRON, OHIO

Toronto, Canada

London, England

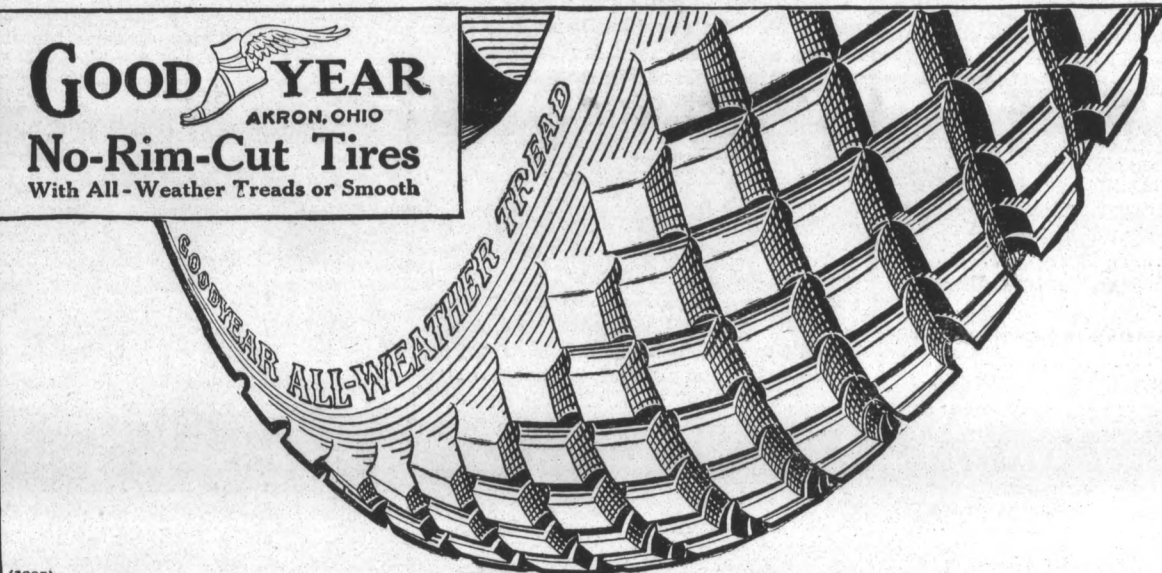
Mexico City, Mexico

Branches and Agencies in 103 Principal Cities

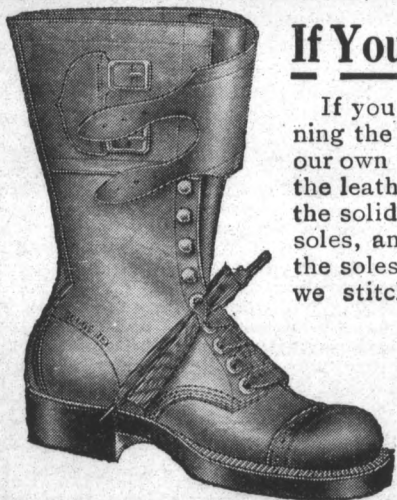
DEALERS EVERYWHERE

Write Us on Anything You Want in Rubber

GOOD YEAR
AKRON, OHIO
No-Rim-Cut Tires
With All-Weather Treads or Smooth



(1885)



If You Knew What We Do

If you could see the care taken in tanning the leather for Rouge Rex Shoes in our own tannery, and then could follow the leather through the factory and see the solid leather counters, heels and in-soles, and the kind of leather we put in the soles, also test the thread with which we stitch these shoes, you would say

"HERE IS AN HONEST SHOE"

You do not have this opportunity; but call on your dealer and examine the finished shoe. Ask to see No. 408. Examine the leather, tough,

pliable, serviceable. Note the heavy stitching, the waterproof soles, the double thickness on the toe, and if you want a really good shoe you will not hesitate to buy No. 408. Look for the trade-mark on the sole.

Write Dept. F for free descriptive book.

HIRTH-KRAUSE COMPANY
Hide to Shoe Tanners and Shoe Manufacturers
GRAND RAPIDS MICHIGAN



Mention the Michigan Farmer when writing to advertisers.

"The Farmer" Brand FANCY CHOICE Cotton Seed Meal

41 to 48 per cent Protein.

Has no equal. There is no other like it. It's in a class by itself. In actual feeding value it is worth \$1 to \$3.00 ton over cheap meals. One per cent of protein in a ton of cotton seed is worth at least 75c to the feeder. "The Farmer" brand contains 3% to 10% more protein than cheap meals.

Do not let your dealer fool you. Insist on having "The Farmer," the old reliable brand. A big yellow tag with complete analysis on every bag. It's handled by the best dealer in every town. If your dealer will not supply you "Farmer" brand do not take a substitute but write us, we will ship you direct and save you money. Ask for prices.

THE BARTLETT COMPANY, JACKSON, MICH.
Cotton and Linseed Meal.

95 AMERICAN
and
Upward CREAM
SEPARATOR
FREE TRIAL. FULLY GUARANTEED.
Easy running. Easily cleaned.
Whether dairy is large or small,
obtain our handsome free catalog. Address **BOX 1061**
AMERICAN SEPARATOR CO. BAINBRIDGE, N. Y.

YOUR MONEY WILL NET 5%

if invested with this Society. Interest paid semi-annually. Let us have your name and address and we will tell you of the advantages offered by this Society which has been doing business for over twenty years.

The Industrial Savings Society,
219 Hammond Bldg., Detroit, Mich.
L. ROY WATERBURY, Pres. AUSTIN N. KIMMIS, Secy.

The Michigan Farmer

Established 1843.

Copyright 1914.

The Lawrence Publishing Co.

Editors and Proprietors.

39 to 45 Congress St. West, Detroit, Michigan
TELEPHONE MAIN 4525.NEW YORK OFFICE—41 Park Row.
CHICAGO OFFICE—604 Advertising Building.
CLEVELAND OFFICE—1011-1015 Oregon Ave., N. E.
PHILADELPHIA OFFICE—214-218 Twelfth St.M. J. LAWRENCE.....President
M. L. LAWRENCE.....Vice-President
E. H. HOUGHTON.....Sec.-Treas.I. R. WATERBURY.....Associate
BURT WERMUTH.....Editors
F. A. WILKEN.....
ALTA LAWSON LITTELL.....

E. H. HOUGHTON.....Business Manager

TERMS OF SUBSCRIPTION:

One year, 52 issues.....\$0.50 cents
Two years, 104 issues.....\$1.00
Three years, 156 issues.....1.25
Five years 260 issues.....2.00

All sent postpaid.

Canadian subscriptions 50c a year extra for postage.
Always send money by draft, postoffice money order, registered letter or by express. We will not be responsible for money sent in letters. Address all communications to, and make all drafts checks and postoffice orders payable to, The Lawrence Publishing Co.

We never, unless through error, send The Michigan Farmer beyond the date subscribed to—our subscription price being always due in advance, and sample copies always free. No bills will ever be sent should a subscription through error be continued after expiration.

RATES OF ADVERTISING:

40 cents per line agate type measurement, or \$5.60 per inch (14 agate lines per inch) per insertion. No adv't inserted for less than \$1.20 each insertion. No objectionable advertisements inserted at any price.

Entered as second class matter at the Detroit, Michigan, postoffice.

DETROIT, OCT. 10, 1914.

A FEW LEADING ARTICLES OF THE WEEK.

- Late Fall Plowing.**—A discussion of the advantages and disadvantages of fall plowing on different types of soil297
- Follow Nature's Methods.**—In the building up of the fertility of the soil we can do no better than to follow nature's methods, here described298
- Disinfection and Disinfectants.**—An explanation of the character and uses of common disinfectants299
- How we Keep Apples.**—A discussion of the essential factors in keeping apples for spring and summer use300
- The Diagnosis of Hog Cholera.**—A practical treatise on the recognition and handling of cholera cases301
- Selling What You Raise.**—Practical pointers on the marketing of the products of the farm to best advantage312
- Developing the Young Pullets.**—Pointing out the importance of such development and the methods by which it can be attained..316

CURRENT COMMENT.

Agriculture in culture are now being High Schools. given in forty-two high schools of Michigan. Eleven high schools began this work with the present school year, which indicates the progress which is being made in the teaching of agriculture in the high schools of Michigan. Last year approximately 1,000 boys took agricultural work of different grades in these schools, and 356 young women were also enrolled in certain of the agricultural subjects. This year the number of high school students doing agricultural work will be increased by about one-third.

This thorough instruction of many hundreds of Michigan boys and girls in the fundamental principles of agriculture, means much to the future of Michigan agriculture. Many of these young people will become so interested in the subject that they will go back to the farms of the state and do constructive work in the betterment of the agriculture of their respective communities. Others of them will become teachers in the primary schools of the state, where their training will enable them to give efficient instruction in elementary agricultural subjects, which are now required to be taught in the primary schools.

When the young man, or the old man either, for that matter, is once interested in the possibilities of agriculture from the standpoint of the student, his life as a farmer has been greatly broadened. So, also, has his usefulness in the community, for these men who have learned to supplement their practical experience with experimentation and study on their own initiative are bound to afford many valuable object lessons to others in their community which will help in raising the plane of agriculture in that community far more than teaching alone could do. Thus, the agriculture taught in our high schools will aid the fathers as well as their sons.

State Bonds for policy of the Michigan Farmer to keep its readers advised

regarding important propositions submitted to the voters of the state at general elections. These are, for the most part, confined to proposed amendments to the constitution of the state, which are of necessity submitted to the electors some time after they have been acted on by the Legislature, and of which the average voter would naturally have little knowledge at the time of their submission unless his attention was specifically directed to the matter. Meritorious propositions are often defeated at the polls for the simple reason that a large percentage of the voters of the state do not thoroughly understand them and, less frequently perhaps, a proposition is adopted which is not in accord with the sober second thought of the electorate. For these reasons we have considered it a public duty to call the attention of Michigan Farmer readers to the subject matter of proposed amendments to the constitution of the state prior to the election at which same are submitted to the electors for ratification.

Several proposed amendments submitted by the last Legislature to the electors of the state for their approval were voted on at the spring election held in April, 1913. A few others will, in accordance with the resolutions of the two houses of the Legislature, be submitted for approval at the general election to be held in 1914, which will be the coming November election. Among these the most important, hence the first to be commented on, is a proposed amendment to section 10 of article 10 of the constitution, the purpose of which is to permit the issuing of state bonds for the purpose of improving the public wagon roads of the state. This section, including the proposed amendment, reads as follows:

Sec. 10. The state may contract debts to meet deficits in revenue, but such debts shall not in the aggregate at any time exceed two hundred fifty thousand dollars. The state may also contract debts to repel invasion, suppress insurrection, defend the state or aid the United States in time of war. The state may also issue bonds for the purpose of raising money for the construction and permanent improvement of the public wagon roads of the state. The money so raised shall be applied to the purposes for which it is raised, or to the payment of the debts contracted.

This wording is identical with that of the section as it now stands, except for the sentence relating to the issuing of bonds for good roads, which is added and is the gist of the proposal. Its real import is, however, much broader than would at first seem from a casual reading of the amendment, in that its adoption would unquestionably place in the hands of the Legislature the power to vote bonds for this specific purpose to the limit of the state's ability to sell them without any referendum whatever to the voters of the state. This is a proposition which is revolutionary in character and merits careful consideration wholly apart from the proposition of the desirability of the improvement of the wagon roads of the state through the issuing of state

bonds to cover the cost of such improvement.

It is to be regretted that the framers of this proposed amendment so worded it as to make it include a vital principle of government as well as the ostensible purpose of the amendment, since there is good reason to believe that it may, in the not distant future, seem entirely proper and desirable for the state to issue bonds for the purpose named. While it has always been against the policy of the state to issue bonds or contract debts for any purpose except in times of most pressing need, as will be noted by the narrow restrictions of the constitutional provision, and while it is a reasonable assumption that the voters of the state would not understandingly vote to change that general policy, sans all restrictions and any voice in the proceedings, circumstances are easily conceivable in which it might be desirable to greatly modify it, and for this particular purpose. The federal Congress has under consideration plans for the granting of national aid for road improvement in the various states. As these plans have taken form it seems probable that such aid will finally be granted through the issuing of government bonds for a large sum, the proceeds of same to be allotted to the states under an equitable plan upon deposit of state bonds bearing a higher rate of interest, which excess in interest would go into a sinking fund to provide for final retirement of the bonds. Under such a plan it would unquestionably be desirable for Michigan to be in a position to avail herself of such aid, and it is a most unfortunate that this amendment is so worded as to compel the voters to approve such a plan, if at all, at the expense of delegating their right to determine the extent or terms of the debt to be incurred to the Legislature of the state without other restrictions than the general purpose to which the funds so raised shall be applied.

We are strongly in favor of the improvement of the common roads of the state, and the progress of such improvement in recent years indicates that we are in line with public sentiment in this direction. The people of many counties in which the county road system has been adopted have shown that they were not opposed to the issuing of bonds for that purpose. If this question were put fairly up to the voters of the state it is entirely probable that they would approve of an issue of state bonds for the same purpose. But this proposed constitutional amendment also involves the question of delegating to representatives, yet to be selected, this very power which is the voter's inherent right, and if the amendment is defeated the over zealous framers who overlooked or underestimated this factor can blame only themselves.

HAPPENINGS OF THE WEEK.

Foreign.

The European War.—Desperate fighting has continued the past week in all the theatres of war in Europe. In the west claims have been made of victories by both sides, but it would appear that the Allies have had the better of the conflict thus far. The enveloping movement on the Allies' left to trap the German right has been in part successful. On Monday it was also reported that the Allies' right wing was beating back the German forces under the Crown Prince. In general, however, the battle is as yet undecided, and there is every probability of its being continued for days, and possibly weeks. The fighting in eastern Prussia and Russian Poland has increased in violence, it being reported that the Czar of Russia and Emperor William are now with their respective forces. It seems that the rapidly increasing numbers of Russian troops are causing Germans to look upon the situation in the east with considerable gravity. The Russians were reported successful in an engagement at Ossowetz at which point the Germans are declared to be in full retreat. The Russians also contemplate an invasion of Hungary, for the purpose of better establishing the

left wing of their army. Fighting continues in Galicia with the advantage to the Russians. In Serbia no important changes have been reported. Japan's forces are gradually closing in upon the Germans in the campaign in Eastern China. It is reported that the French losses during the first six weeks of war aggregate 300,000 men, while an estimate of the German losses is nearly 500,000 men. Antwerp has been besieged by the Germans during the past week, but the Belgian reports declare that there is no danger of the city falling into the hands of the enemy, although German advances are that some of the forts have already fallen.

It is stated that Bulgaria and Turkey have entered into a compact to oppose Roumania in the event that the latter country goes to the aid of Russia in the present war. Italy has issued an ultimatum to Austria because of the latter country's forces laying mines in the Adriatic Sea. Austria, however, has apologized for this act.

The conference held at Mexico City to consider the positions of Gen. Carranza and Gen. Villa, voted confidence in the former general by an unanimous vote of the chiefs of the southern states. At the session, Carranza appeared and read his resignation, which was not accepted. Notwithstanding this it is the general belief that political affairs will be peacefully settled in the course of a fortnight or so.

The evacuation of Vera Cruz by American troops and the withdrawal of American war ships from Mexican waters will be delayed until the differences between Gen. Carranza and Gen. Villa are settled.

National.

The city of Cleveland has built a municipal electric light plant and is now furnishing electricity to individuals at a three cent rate instead of ten cents, the price charged by private lighting concerns.

Throughout the country President Wilson's appeal to make October 4 a day of prayer for peace, was generously responded to by all denominations.

Congress expects to adjourn the present session October 17. For 18 months the country's lawmakers have been considering matters of public concern despite the fact that most of them are candidates for re-election this November.

Another victim of bubonic plague was reported at New Orleans Monday. This is the tenth death. It was thought that the epidemic had been eradicated.

An active program for the building of a greater United States navy has been started and during the next regular session of Congress an attempt will be made to provide for 12 new dreadnoughts. The advocates claim that America's position in international politics makes necessary a stronger naval force. The completion of the Panama Canal, the restriction of Asiatic immigration, the integrity of China and the open door for her trade are among the problems with which America must be ready to cope.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, ETC.,

of the Michigan Farmer, published weekly at Detroit, Mich., required by the Act of August 24, 1912.

Name and Postoffice Address.
Editor, I. R. Waterbury, Detroit, Mich.; Managing Editor, M. J. Lawrence, Washington, D. C.; Business Manager, E. H. Houghton, Detroit, Mich.; Publisher, Lawrence Publishing Co., Detroit, Mich.

Owners, (if a corporation, give the names and addresses of stockholders holding one per cent or more of total amount of stock):

M. J. Lawrence, Washington, D. C.
M. L. Lawrence, Cleveland, Ohio.
P. T. Lawrence, New York City.
Nellie Lawrence Parsons, Cleveland, Ohio.

Citizens Sav. & T. Co., Trustee, Cleveland, Ohio.
George Lomnitz, Guardian, Cleveland, Ohio.

Mrs. G. B. Rogers, Cleveland, Ohio.
Lillian Cotton, Cleveland, Ohio.
E. D. Pope, Cleveland, Ohio.
R. M. McConville, Cleveland, Ohio.
E. H. Houghton, Detroit, Mich.
G. J. Munsell, Detroit, Mich.
F. H. Nance, Lakewood, Ohio.

Known bondholders, mortgagees, and other security holders, holding one per cent or more of total amount of bonds, mortgages, or other securities:

None.
EDGAR H. HOUGHTON, Secy. (Signature of editor, publisher, business manager, or owner).

Sworn to and subscribed before me this first day of October, 1914.

CLARENCE E. HAMLIN,
Notary Public, Wayne County, Mich. (My commission expires October 12, 1917).
(Seal).

Magazine Section

LITERATURE
POETRY
HISTORY and
INFORMATION

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

The FARM BOY
and GIRL
SCIENTIFIC and
MECHANICAL

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

Caste System Thwarts Hindu Progress

By PROF. ALFRED VIVIAN.

THERE is an old limerick which everyone has heard time and again, that runs as follows:

"The poor benighted Hindu
He does the best he kin do,
He sticks to his caste
From first to last
And for clothes he makes his skin do."

*These lines written as the veriest piece of nonsense rhyming are in reality a brief but comprehensive sermonette on Hinduism.

Of the three hundred and fifteen million people in India, over two-thirds belong to the Hindus or the followers of Brahmanism. One of the principal tenets of this religion, or state of society, or whatever it is (for its followers themselves are not sure that it is a religion) is that which divides the people into "castes." Originally there were only four castes; i. e., the Brahmins, or priests, the Kshatriyas, or soldiers, the Vaisyas, including agriculturists and tradesmen, and the Sudras or common laborers to whom fell the most menial work. Gradually, however, these castes have been divided and subdivided, until it is estimated that there are over 4,000 different castes. The word "estimated" is used advisedly for no man who lives would pretend to say exactly how many different castes there are in India.

No member of one caste is allowed to marry into another caste, nor is it permissible for a person to eat with one of another caste, or even to eat food cooked by any one belonging to a different caste from his own. The Brahmins belong to the highest caste and the Sudras are the lowest, but the subdivision of the four original castes has brought about a gradation in rank from the highest to lowest caste that is beyond the understanding of the Occidental mind, and, in fact, no Hindu even claims to know the relative standing of all the castes. Below all of the castes are fifty millions of people who are "outcasts," or in other words, belong to the "untouchables" for merely to touch one of them would make a person lose his standing in his own caste. Violations of certain laws of caste may result in a man being "outcasted" when he then becomes one of the "untouchables."

A man is born into a certain caste and can not by any means become a member of another one. A shoemaker's son must be a shoemaker; a farmer's son must perforce be a farmer. and the son of a Brahmin is a Brahmin willy-nilly. He can do some dreadful act (like eating with a Christian) which will send him pell-mell to join the ranks of the "depressed classes" (as the learned Hindu is now fond of calling them), but strive as he may he can never rise above the condition into which he was born, no matter what his ability nor how de-

spised the cast to which he belongs.

The trade unions of the United States are not "in it" with the castes of India for exclusiveness. A friend of ours had working for him a sweeper (which, by the way, is one of the very lowest castes) who made a demand for more pay. The employer said: "I can not pay you more for sweeping which takes only a small part of your time, but if you will also work in the garden I will increase your wages," to which the man agreed. The next day the regular gardener came to the house and said, "Sahib, give me my pay. I can not work for you because you have sent a sweeper out to work in the garden." It was not that the man so much minded working beside a sweeper, but he knew that if he did so he would be outcasted. An English lady we met tells of a "bearer" (a servant who waits at the table), whom she asked to remove a cobweb which was in the corner of the ceiling. To remove it he tied a feather duster on

course), fell upon the food it would be unfit for use. To eat such food would mean that the partaker would lose caste. It is sometimes said that caste is losing its hold upon the Indian people but it is difficult to imagine that the hold of caste could have ever been stronger than it is at the present time.

If the priests have their way about it, the caste system will never die out for they depend upon it to retain their position in life and their hold on the population. Naturally, they rather enjoy the sensation of being the top of the heap, and being able to dictate to the lower castes in all matters both temporal and spiritual.

Theoretically, the religion of the Hindus consists in the worship of the one god Brahma, in his three personal manifestations of Brahma, the creator; Vishu, the preserver, and Shiva, the destroyer and reproducer. These gods have various wives, sons and daughters who come in for a share of worship also. As a matter of fact, the

ons. The Hindu mind has no conception of a kind and merciful God, consequently, the god to whom the greatest number of temples are dedicated is Chiva whose terrible character makes him a god to be feared and flattered. Scarcely less worshipped is Durga, the bloodthirsty wife of Shiva, who is said to delight in destruction and bloody sacrifices.

The most wonderful of the temples dedicated to Shiva is the one located at Madura in Southern India. The immense structure is one of barbaric splendor and like all the truly Hindu temples is replete with wonderful carvings. The several high towers are covered with carvings representing scenes from the lives of the gods, and are hideous in the extreme, although the execution of the work commands great admiration. We have seen hundreds of Hindu temples during the last few weeks and are ready to pronounce them among the filthiest places to be found in the world. Apparently no attempt is made to keep them clean. Shops of all kinds are found in the corridors and all waste

materials are thrown indiscriminately about. The cow and the bull are sacred animals and are allowed to roam at will in and out of the temple as well as among the shops in the most congested parts of the city. All the temples smell like cow stables, the "Cow Temples" at Benares being especially odoriferous, for here a specialty is made of worshipping the cow. We can sympathize to some extent with the people who worship the cow, but prefer to do so when she is confined in a sanitary American stable, instead of in a bad smelling Hindu temple which may be approached only by wading through filthy streets, stumbling over dirty and diseased beggars, and laying oneself open to the attacks of various and sundry microbes which find these surroundings congenial.

Every Hindu temple has its "tank" in which the people may perform their

religious ablutions. These tanks are large rectangular basins enclosed by a wall and sometimes are several hundred feet in width and length. They are commonly, though not always, surrounded by the buildings of the temple. The Hindu is required to take a ceremonial bath every day, this bath apparently being indulged in for ritualistic purposes rather than with any idea of becoming clean in the sense in which we use the word. The bath must be conducted according to rule, beginning at a certain point on the body and following a prescribed course. To vary the order would be disastrous.

The body is washed, the nostrils and mouth rinsed out, and the teeth vigorously scrubbed either with



Pilgrims Bathing in the Ganges.

the end of a stick and was caught in the act by one of his fellow bearers who reported that he was doing a sweeper's work, with the result that the servant in question barely escaped being outcasted.

Soon after arriving in India I was walking down the street of one of the native cities when my curiosity was aroused by a man who was peddling a variety of queer looking cakes and confectionery. The guide told me not to go too close, and explained afterward that if I had touched one cake the whole tray would have been contaminated or rendered "unclean," and could not have been eaten by any Hindu. Indeed, some are so strict that if even the shadow of an outcast (and all Christians are outcasts, of

religion of the vast majority of the people consists in a wild desire to propitiate the myriads of demons who stand ready to do them evil at the slightest provocation or, indeed, with no provocation whatever. There are are demons everywhere, in wood, and plain, and river; big demons and little demons, and their chief delight is to make life miserable for the "poor benighted Hindu." If he is a farmer the demons destroy his crops, make his cows go dry, drive his buffaloes mad so they horn him, poison his well, send plagues of mosquitoes, cause his mud house to fall down, and do a thousand other things that only ingenious demons can think of, to annoy mankind. The priests are only a little less feared than the dem-

ECLIPSE

The good, tight joints of this Eclipse Oak make it a perfect fire-keeper. There are no inside nuts or bolt heads to burn off. No seams to leak.

Corrugated Firepot lasts extra long and holds heat extra well. Woodplate or Hard Coal Grate Supplied on order.



Write Us For

Free Book

This is without doubt one of the finest stoves made. Handsome, easily kept clean and polished. Write us for name of Eclipse dealer.

Our line of stoves and ranges has all modern conveniences and many features you can get only in the Eclipse. Free Book describes all styles.

Eclipse Stove Co.
Mansfield, Ohio

FARM LINE Telephone
Instruction Book Free

Fully explains most successful plan for organizing and building neighborhood telephone lines at low cost. How to start co-operative companies, by-laws, rules and helpful advice by experts. Every telephone man needs this useful information book about Reliable "Time-Tested" Telephones. If you have no line, let us help you start one. Send for Catalogue and prices.

Swedish-American Telephone Mfg. Co.
Dept. 24, Chicago, Ill.

Steel Shoe Book Saves You \$20!

1 Pair Outlasts 3 to 6 Pairs All-Leathers FREE

If you are tired of wet, sore, calloused feet—Rheumatism and Colds—hard, twisted, leaky leather—Big Doctor and Shoe Bills—loss of time, money, health and comfort—TRY FREE

my Latest Triumph—Leather Tapped "Steels" Light, Springy, Comfortable, Economical, Waterproof, Warm in winter—Cool in summer—Adjustable Leather Taps, instantly renewed FREE Book tells how you can try "Steels" ten days FREE and save \$10 to \$20 shoe money.

N. M. RUTHSTEIN—Steel Shoe Man—Dept. 26, Racine, Wis.

FOR THOROUGH EFFICIENT TRAINING IN
Business, Shorthand, Typewriting,
ATTEND THE
BUSINESS INSTITUTE
163-169 Cass Ave., Detroit.
Largest, Best Equipped Business School in Michigan.
Write A. F. TULL for free illustrated catalog.

\$40 AND EXPENSES EVERY WEEK Now being earned easily by many of our agents. Not one week, but every week. Clean, high class business. Your entire time, or just evenings, demonstrating and taking orders for the

COLEMAN AIR-O-LITE
—A beautiful, portable lamp. Makes and burns its own gas. 300 candle power, at only 1-3c per hour. No greasy wicks, no chimneys. No danger even if tipped over. Guaranteed for five years. Sells on sight. Exclusive and special proposition to agents everywhere. Write at once for catalogue and wholesale price list.

The Coleman Lamp Co., 206 St. Francis, Wichita, Kansas.
1008 Summit St., Toledo, Ohio.

Railway Mail Clerks, Clerk-Carriers and Rural Carriers wanted. I conduct Examinations, can help you. Trial Examination Free. Ozmest, 17 E. St. Louis.

the fingers or with a bit of stick from the Nim tree, the end of which has been chewed into a sort of a brush. The bath seems to be incomplete until the bather swallows a little of the water in which he has washed.

The tanks vary in holiness, the one at Madura being especially holy and bearing the euphonious title of "The Golden Lily Tank." The lilies, golden or otherwise, are left to the imagination, for in reality the tank contains only dirty water which is covered

with a thick green scum. The devotees, however, bathe in this water, wash their clothes in it, and drink it, for it is especially efficacious in curing diseases and in warding off the attacks of demons. As one bath in this tank removes a multitude of sins, it is not surprising that it is constantly crowded with bathers. A similar tank at the Golden Temple at Amritsar, the guide informed us, was "very good water to drink and wash in and washed away much sins."

a trifle rare, because brains and birth do not necessarily tally, and the man educated by the struggle for existence is apt to be taught more than he ever would be at Oxford or in the army. Still, men of that stamp forget a good deal, and learn so much that is undesirable, you see. In fact, I only know one man who would have suited me, and he is debarred by age and affinity—but, because we are so much alike, I can't help fancying that you once knew another."

The smile on Miss Barrington's face, which was still almost beautiful as well as patient, became a trifle wistful.

"There are few better men than my brother, though he is not clever," she said, and dropped her voice a little. "As to the other, he died in India—beside his mountain gun—long ago."

"And you have never forgotten? He must have been worth it—I wonder if loyalty and chivalric faith belong only to the past," said the girl, reaching up a rounded arm and patting her aunt's thin hand. "And now we will be practical. I fancied the head of the settlement looked worried when he met me, and he is not very proficient at hiding his feelings."

Miss Barrington sighed. "I am afraid that is nothing very new, and with wheat steadily falling and our granaries full, he has cause for anxiety. Then the fact that Lance Courthorne has divided your inheritance and is going to settle here has been troubling him."

"The first is the lesser evil," said the girl, with a little laugh. "I wore very short frocks when I last saw Lance in England, and so far as I can remember he had the face of an angel and the temper of a devil. But did not my uncle endeavor to buy him off, and—for I know you have been finding out things—I want you to tell me all about him."

"He would not take the money," said Miss Barrington, and sat in a thoughtful silence a space. Then, and perhaps she had a reason, she quietly recounted Courthorne's Canadian history so far as her brother's agents had been able to trace it, not omitting, dainty in thought and speech as she was, one or two incidents which a mother might have kept back from her daughter's ears. Still, it was very seldom that Miss Barrington made a blunder. There was a faint pinkness in her face when she concluded, but she was not surprised when, with a slow, sinuous movement, the girl rose to her feet. Her cheeks were slightly flushed, but there was a significant sparkle in her eyes.

"Oh," she said, in utter contempt. "How sickening! Are there men like that?"

There was a little silence, emphasized by the snapping in the stove, and if Miss Barrington had spoken with an object she should have been contented. The girl was imperious in her anger, which was caused by something deeper than startled prudery.

"It is," said the little white-haired lady, "all quite true. Still, I must confess that my brother and myself were a trifle astonished at the report of the lawyer he sent to confer with Lance in Montana. One would almost have imagined that he had of late been trying to make amends."

The girl's face was very scornful. "Could a man with a past like that ever live it down?"

"We have a warrant for believing it," said Miss Barrington quietly, as she laid her hand on her companion's arm. "My dear, I have told you what Lance was, because I felt it was right that you should know; but none of us can tell what he may be, and if the man is honestly trying to lead a different life, all I ask is that you should not wound him by any manifest suspicion. Those who have never been tempted can afford to be merciful."

Maud Barrington laughed somewhat (Continued on page 308).

Winston of the Prairie

BY HAROLD BINDLOSS.

Copyrighted by Frederick A. Stokes Company.

Synopsis of Previous Chapters.

Farmer Winston, having failed as a homesteader and driven to desperation, accepts a proposal to simulate Lance Courthorne, an adventurer; through the consummation of which Courthorne and his pals, after a struggle with the police, during which Trooper Shannon is killed by Courthorne, who leaves evidence pointing to Winston as the murderer, are able to smuggle through some illegal distillery products. The scene shifts to Silverdale, a settlement founded by Colonel Barrington, to which Maud Barrington, his niece and ward, has just returned after a visit to Montreal. Her questions elicit the information that the Colonel is worried over a fall in wheat prices, especially in the face of his advice to her to hold her share of that commodity; and also over the coming advent of Lance Courthorne, Miss Barrington's cousin, to Silverdale to claim his share of his father's estate. Maud Barrington learns more of her cousin's unsavory past from a frank conversation with her aunt.

CHAPTER VI.—(Concluded).

"No, I am not tired, aunt, and I could not sleep just now," she said. "You see, after leaving all that behind one, one feels, as it were, adrift, and it is necessary to realize one's self again."

The little silver-haired lady who sat in the big basket chair smiled down upon her, and laid a thin white hand that was still beautiful, upon the gleaming hair.

"I can understand, my dear, and am glad you enjoyed your stay in the city, because sometimes when I count your birthdays I can't help a fancy that you are not young enough," she said. "You have lived out here with two old people who belong to the past, too much."

The girl moved a little, and swept her glance slowly around the room. It was small and scantily furnished, though great curtains shrouded door and window, and here and there a picture relieved the bareness of the walls, which were paneled with roughly-dressed British-Columbian cedar.

The floor was of redwood, diligently polished and adorned, not covered, by one or two skins brought by some of Colonel Barrington's younger neighbors from the Rockies. There were two basket chairs and a plain redwood table; but in contrast to them a cabinet of old French workmanship stood in one corner bearing books in dainty bindings, and two great silver candlesticks. The shaded lamp was also of the same metal, and the whole room, with its faint resinous smell conveyed, in a fashion not uncommon on the prairie, a suggestion of taste and refinement held in check by at least comparative poverty. Colonel Barrington was a widower who had been esteemed a man of wealth, but the founding of Silverdale had made a serious inroad on his finances. Even yet, though he occasionally practiced it, he did not take kindly to economy.

"Yes," said the girl, "I enjoyed it all—and it was so different from the prairie."

There was comprehension, and a trace of sympathy, in Miss Barrington's nod. "Tell me a little, my dear," she said. "There was not a great deal about it in your letters."

Her niece glanced dreamily into the sinking fire as though she would call up the pictures there. "But you know it all—the life I have only had glimpses of. Well, for the first few months I almost lost my head, and was swung right off my feet by the whirl of it. It was then I was, perhaps, just a trifle thoughtless."

The white-haired lady laughed softly. "It is difficult to believe it, Maud."

The girl shook her head reproachfully. "I know what you mean, and perhaps you are right, for that was what Toinette insinuated," she said. "She actually told me that I should be thankful I had a brain since I had no heart. Still, at first I let myself go, and it was delightful—the opera, the dances and the covered skating-rink with the music and the black ice flashing beneath the lights. The whirl of the toboggans down the great slide was finer still, and the torchlight meets of the snowshoe clubs on the mountain. Yes, I think I was really young while it lasted."

"For a month," said the elder. "And after?"

"Then," said the girl slowly, "it all seemed to grow a trifle purposeless, and there was something that spoiled it. Toinette was quite angry and I know her mother wrote you—but it was not my fault, aunt. How was I, a guileless girl from the prairie, to guess that such a man would fling the handkerchief to me?"

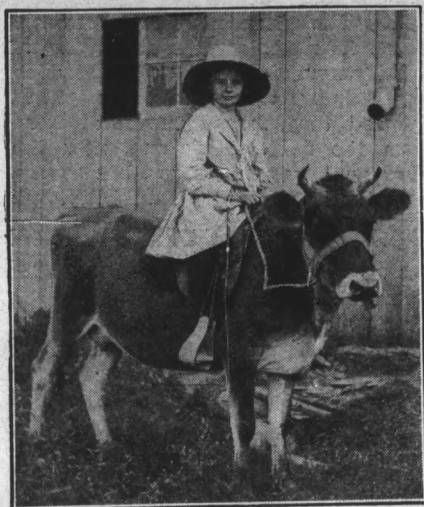
The evenness of tone and entire absence of embarrassment was significant. It also pointed to the fact that there was a closer confidence between Maud Barrington and her aunt than often exists between mother and daughter, and the elder lady stroked the lustrous head that rested against her knee with a little affectionate pride.

"My dear, you know you are beautiful, and you have the cachet that all the Courthornes wear. Still, you could not like him? Tell me about him."

Maud Barrington curled herself further. "I think I could have liked him, but that was all," she said. "He was nice to look at and did all the little things gracefully; but he had never done anything else, never would and, I fancy, never wanted to. Now a man of that kind would very soon pall on me, and I should have lost my temper trying to waken him to his responsibilities."

"And what kind of man would please you?"

Maud Barrington's eyes twinkled, but that fact that she answered at all was a proof of the sympathy between herself and the questioner. "I do not know that I am anxious any of them should," she said. "But since you ask, he would have to be a man first, a toiling, striving animal who could hold his own amidst his fellows wherever he was placed. Secondly, one would naturally prefer a gentleman, though I do not like the word, and one would fancy the combination



The Milk Maid Ready for an Outing.

WHAT IS IN A NAME?

BY JULIA RAMSEY DAVIS.

There are crimes, and crimes, but none more to be deplored, because of the helplessness of the victim, than those committed by unthinking parents in naming their innocent children.

Negroes are noted for giving their offspring high sounding names, and often they make ridiculous combinations. One dusky pair has recently christened a baby girl, "The Virgin Mary."

A girl coming into the Bank's family during an unusual snow in south Georgia, was promptly named Snow, which combination, Snow Bank, is not very appropriate for a child of ebony hue.

One colored mother, not wishing to show partiality, gave her favorite name, Minnie Lee, to her four daughters. She says that this has proved a splendid arrangement, for when she wants a child she calls, "Minnie Lee!" and any of the four in hearing will hasten to her assistance.

Patriotism and state pride have caused many a child, both white and black, to struggle under a great name. The country is full of Washingtons, Lincolns, Grants, Lees, Jacksons, etc., most of whom are "hewers of wood and drawers of water."

But the African race is not alone in this offense against childhood. Everyone can recall instances where, seemingly intelligent parents have given their children unpardonable names.

An estimable young man of my acquaintance blushes to acknowledge the name of Green Lemon. Mr. Long Pole always requests his friends to call him by his initials.

We have all heard of Mr. Hog, who christened his two daughters Ima and Ura. No wonder the girls availed themselves of the first opportunity to change them.

We may learn a lesson from the following true story: Mr. and Mrs. Rose, who are prominent people in a southern town, had their only daughter christened Wild, because the whole, Wild Rose, appealed to them as being novel. They did not realize that unusual names are frequently a misfortune.

Wild Rose blossomed into a most attractive young lady. She was a belle and had many suitors for her hand, but alas! that Cupid should be so blind. Charming Mr. Crane was the one who won her heart.

Poor Wild Rose vowed that she would never marry, for she would not, even for love, consent to go through life with the horrible name of Wild Crane.

For some time their case seemed hopeless, but "Love will find a way." Mr. Crane appealed to the legislature of his state, and was soon happy in bearing the cognomen of Mr. Flower. This name was entirely satisfactory, so in a short time Wild Rose became his Wild Flower for life.

Six-40
HUDSON
\$1,550

The Class Car Which Outsell All Others With Price Above \$1,200

Note these amazing facts:

All 1915 models are out now, so all men know what's to be had. And now the sales on this HUDSON Six-40 are breaking all class-car records.

In September users paid for this car \$3,875,000—an average of \$930,000 per week. And still they wanted more.

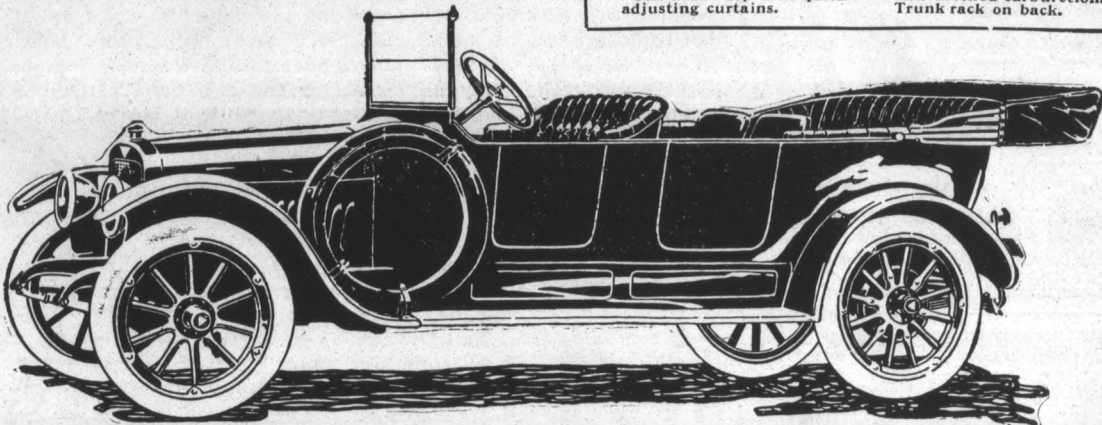
The factory output—to cope with demand—is **five times** larger than one year ago. Think of that. The new-day model, in a single year has quintupled HUDSON popularity.

No car in the world with a price above \$1,200 has ever met such a sale.

Men Waited Weeks

We have at times been 4000 cars behind orders. Those thousands of men waited weeks for this car rather than take another.

This happens, remember, with all new-year models in competition. It happens when men are buying most carefully—making every dollar count. And it happens when men are demanding more than ever before demanded in their cars.



Phaeton, with two extra disappearing seats \$1,550 f. o. b. Detroit.
Canadian Price: \$2,100 f. o. b. Detroit, Duty Paid.

Hudson Motor Car Company, 8309 Jefferson Ave., Detroit, Mich.

Under those conditions men are flocking to HUDSONS. They are paying for HUDSONS \$3,875,000 in one month. They are buying HUDSONS **five times** faster than last year at this time.

See It This Week

Now—with all 1915 models out—is the time to choose your new car. You have leisure now, and the best touring months are before you.

Go this week and see how this HUDSON Six-40 outrivals all others in its class. You are bound to select it if you pay more than \$1,200.

You will see the masterpiece of Howard E. Coffin, the famous HUDSON designer. He has worked for four years on it, with 47 other HUDSON engineers. It is his finished ideal of the new-day car.

You will see how clever designing and costly materials have saved 1,000 pounds in weight. You will see a new-type motor which has reduced fuel cost 30 per cent.

In beauty and comfort, in perfect equipment, you will see scores of new attractions. And you will find a price lower than ever before was quoted on a high-grade car.

The HUDSON Six-40 excels in all these features which men are today demanding. Go now and see it. It will change all your conceptions of a modern, classy car.

Hudson dealers everywhere.

Catalog on request.

A perfect streamline body.
Invisible hinges.
Hand-buffed leather upholstery.
Gasoline tank in dash.
Tires carried ahead of front door.
"One-Man" top with quick-adjusting curtains.

Dimming searchlights.
Simplified starting, lighting and ignition system.
Wiring in metal conduits.
Locked ignition and lights.
New speedometer drive.
Automatic spark advance.
New-method carburetion.
Trunk rack on back.

\$9⁴⁵

In Your
Bank
Brings
You This
Highest
Quality
Stove



"A Kalamazoo
Direct to You"

Trade Mark
Registered

Choose Any
Kalamazoo on Trial
Pay Later

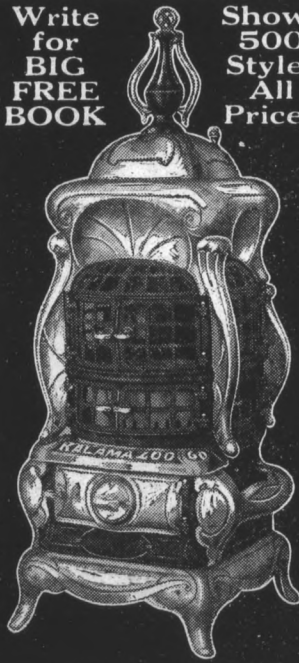
WRITE for the new edition of the Kalamazoo Catalog showing hundreds of the finest heaters and cookers of every kind—all offered on a more liberal plan than ever.

We have 275,000 customers already. We are out for 50,000 more *this year*. The quality, the improvements, the prices, the new designs we now offer are astonishing. You are entitled to them and to the offer of any Kalamazoo, freight prepaid, on trial for a part of price deposited in your own bank. Order shipped day received. Year's approval test. Get book and see.

Ask for Catalog No. 113
KALAMAZOO STOVE CO.
Manufacturers
Kalamazoo, Michigan

Write
for
BIG
FREE
BOOK

Shows
500
Styles
All
Prices



LET US TAN
YOUR HIDE.

Cattle or Horse hide, Calf, Dog, Deer or any kind of skin with hair or fur on. We tan and finish them right; make them into coats (for men and women), robes, rugs or gloves when ordered. Your fur goods will cost you less than to buy them, and be worth more. Our illustrated catalog gives a lot of information which every stock raiser should have, but we never send out this valuable book except upon request. It tells how to take off and care for hides; how and when we pay the freight both ways; about our safe dyeing process which is a tremendous advantage to the customer, especially on horse hides and calf skins; about the fur goods and game trophies we sell, taxidermy, etc. If you want a copy send us your correct address.

The Crosby Frisian Fur Company,
571 Lyell Ave., Rochester, N. Y.



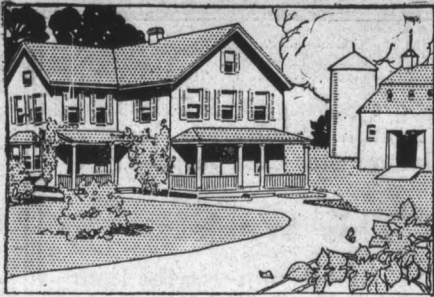
Learn Auctioneering at WORLD'S GREATEST dependent. Winter term opens December 7th following International Stock Show. Class limited to 100 students. Write today for free catalogue. JONES NAT'L SCHOOL OF AUCTIONEERING, 28 N. Sacramento Blvd., Chicago, Ill., Carey M. Jones, Pres.

We Will Pay You \$120.00 to distribute religious literature in your community, 60 days' work. Experience not required. Man or woman. Opportunity for promotion. Spare time may be used. INTERNATIONAL BIBLE PRESS, 231 Winston Bldg., Philadelphia.

WANTED SALESMEN To Work Two or Three Counties

Prefer men who can furnish their automobile, motorcycle, or horse and buggy. We sell Oils and Paints direct to the consumer. Should be able to make from \$100 to \$250 per month, clear. We furnish sample outfit. Commissions paid at the end of each week. GREAT EASTERN OIL & PAINT CO., Cleveland, O.

Please mention the Michigan Farmer when you are writing to advertisers and you will do us a favor



YOUR HOME AND YOUR BUILDINGS

PROTECT THEM NOW
SAVE MUCH MONEY LATER ON

Most farmers look upon paint as a good investment. Especially is this true of a man with a good sized dairy herd—for his investment in buildings is very large and his repair expense very burdensome if they are not properly protected.

In buying paint, it's well to consider that the real cost is not simply cost per gallon. It's this cost divided by the number of years the paint lasts. Paint costing a little less may prove very expensive if it doesn't withstand the weather. That's why so many people are turning from cheap paints and hand-mixed lead and oil, and getting the certainty of long service, in

Low Brothers
High Standard
LIQUID PAINT

It is scientifically made of highest grade materials proportioned as carefully as a druggist's prescription and mixed by the most modern machinery.

Exposure tests at our factory carried on for a third of a century and service on thousands of farm buildings show "High Standard" paint holds its color, resists sun, rain and frost, wears longer than any other paint, and leaves a good surface for repainting.

For inside walls and ceilings the most beautiful and economical of all finishes is Mellotone; fadeless, lasts for years and washes bright as new.

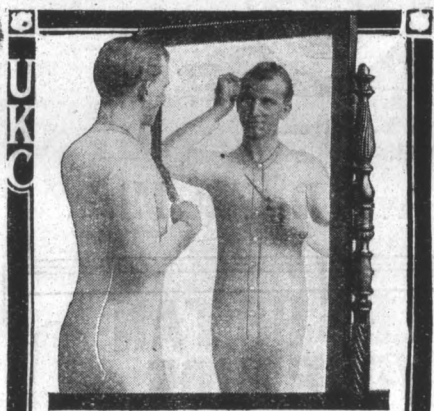
Valuable Book—Free

You'll get good ideas for fixing up your home inside and out—from "Homes Attractive," and with it we'll send, if you ask, color cards that will help you paint your buildings, implements, etc. Ask the name of your nearest "High Standard" dealer in case you don't already know, and write today.

The Lowe Brothers Company

499 E. Third Street, Dayton, Ohio

Boston Jersey City Chicago Kansas City
Minneapolis
Lowe Brothers, Limited, Toronto, Canada



VELLASTIC

Ribbed Fleece—Lined Underwear

VELLASTIC Union Suits sum up your idea of perfection. Their velvet fleece is greatly warm and complete—their ribbed fabric gives complete comfort—and the wear of VELLASTIC is wonderful.

For Men, Women and Children.

Union Suits or Separate Garments at 50c and up at most dealers. Look for the name VELLASTIC. Write for the Bodygard Book No. 2.



Utica Knitting Co., Utica, N. Y.

Makers of Bodygard Underwear
Vellastic Lambsdown Springtex

MAKE YOUR OLD HOUSE NEW

by using asbestos outside stucco. Guaranteed. Write for particulars.

H. J. BARBER

425 Pennsylvania Ave., Detroit, Michigan.

WEALTH IN INVENTIONS. Patent your ideas. Send for our Free Book and advice How to Succeed. Sues & Co., Atty's, 548 7th St., Washington, D.C.

In the Last Five Minutes of Play.

By MANTHIE HOWE

TRY out for the foot-ball team this afternoon at four-thirty." The news was passed from mouth to mouth on the play ground at noon.

Who would make the team? Who would get in at quarter? The Baxter High School had good material this year—everybody said so. Wouldn't they wallop their old enemy, Ipswich! The talk drifted back and forth, and Dan McEevers, sophomore, listened eagerly. If there was one thing in all the world that Dan wanted it was to be one of the foot-ball eleven.

"Coming out tonight, Dan?" said big Bob Danforth, a husky senior.

"What's the use," muttered Dan disconsolately. "You know I'm about fifteen pounds too light. The quarter is the only position I could play and I haven't a chance with Loftis."

"That's all right, old man," encouraged Bob. "You never can tell what will turn up. You better come out for the try-out."

"I'll think about it," promised Dan. And he did. With the result that he dug out his old eighth grade suit. But he had half a mind to throw it back in the trunk when he found he hadn't put on more than seven pounds at the most since he had worn the suit two years before.

"A fine chance I have to make the team," he thought, as he trotted down to the practice field.

The coach gave Dan a keen look. "Get in with the big fellows," he ordered.

And Dan thought that by some miracle his dream was to be fulfilled. Manfully he trotted up and down the field, getting poked and jolted by his heavier team mates without a word of protest. At the end of the practice the coach laid a hand on his shoulder.

"It's too bad, boy," he said kindly, "you have the courage but you haven't the weight. Loftis is about ten pounds heavier than you, and I guess we'll have to give him the place at quarter-back. You play quarter on the second team and we'll take you on as sub."

It was not like making the team to go as sub, with probably never a chance to play all season, but it was better than nothing, and Dan swallowed his pride and disappointment and made up his mind to pitch in and make a showing on the second team.

All through the golden days of October he trained manfully. No coffee, no candy, bed at nine o'clock and regular gym work every day. Without a word of protest he went through the grind and reported for the daily practice. With a grin on his thin dark face he stood up and let the big team drub him unmercifully in the scrimmages. And day by day he gained a little flesh and better control of his wind.

Then the great day drew near. Bob Danforth met him on the way to school Monday morning and told him the news as they walked together.

"It's come, Dan," he cried enthusiastically. "We're to get a chance at Ipswich next Saturday."

"Honest Injun," replied Dan excitedly. "I'd give anything to be in that game."

"Wish you could Dan," said Danforth. "I surely wish you could, for I'm mighty afraid Loftis isn't going to play up very well. He hasn't trained very much and—well, I guess he isn't as interested as he might be."

Dan knew what the big half-back meant. The team was afraid that Loftis was "yellow." The worst thing that can be thought of a foot-ball player.

Monday's and Tuesday's practices dragged by and each day found it harder for Dan to keep on with the hard inglorious grind of practice on the second team. The one word of

encouragement came when the coach stopped him after practice Wednesday afternoon.

"Good work, McEevers," he said, "had my eye on you this afternoon and you are beginning to show up in fine form. Come down to signal practice of the first team tomorrow. The season has just begun you know."

Come to signal practice! Would he? Well—would he? Dan grinned to himself as he whistled and rubbed his lame thighs. Didn't he know every signal as well as he knew his own name!

Friday night he went to bed half an hour earlier, and it was a lucky thing he did, for it took him half an hour before he could get his mind off the big game and go to sleep. Oh, for a chance to play against Ipswich!

Saturday dawned crisp and bright, an ideal foot-ball day. All morning enthusiastic high school students went down the main streets, selling tickets and assuring the citizens of Baxter that their team could beat Ipswich. All they wanted was a chance.

At two-thirty every seat in the grandstand was taken and the crowds swarmed down along the ropes of the foot-ball field. A wild hurrah went up as the Baxter boys began to pull off their sweaters. Dan sat on the sub bench; his jaws grim and eyes burning excitedly.

"Give the boys nine rahs," ordered the yell master.

And rah! rah! rah! rent the air with a right good will.

"Now a yell for Ipswich."

"Rah! rah! Ipswich! Ipswich," came the sportsmanlike cheer of the Baxter rooters, as the rival team trotted out on the field.

Then a breathless silence settled over the crowd as the captains tossed for goals.

"Baxter are you ready? Ipswich?" queried the referee.

"All ready," came the answer from the opposing captains.

The whistle sounded and the big game was on.

Up and down and back and forth they surged, but gradually the Baxter boys were advancing towards their goal. Dan paced up and down the side lines with the coach, praying, muttering, begging the boys to pull together and make a touch-down.

"Touch-down! We want a touch-down!" screamed the loyal rooters.

"Come on boys! Only five more minutes to play."

"Give us a touch-down!" the crowd begged and implored.

Dan found that his throat was getting dry and hoarse from yelling. He seized a megaphone and running out to the ropes called: "Come on Bob, shove them across for a touch-down."

His ears caught the signal 76-42-3-7. They were going to put Loftis through the line.

The big center snapped the ball clean and straight and—Loftis fumbled! Ipswich's wiry little right end grabbed it and was off down the field. Big Bob Danforth tackled him and brought him to earth just as the whistle blew.

And the end of the first half was over. The score stood 0 to 0.

In the dressing-room the coach flayed the players with his reproaches. "It was inexcusable," he said. "You had the touch-down within your grasp and you let it get by."

"Loftis got out of the game. Send for McEevers."

A great light leaped to Bob Danforth's eyes.

With trembling fingers Dan stripped off the old red sweater and trotted into place.

"Get into the game," yelled the disappointed high school students. "Get into the game you fellows."

Again the referee's whistle sound-

ed. Ipswich opened the second half with a fine clean kick that won applause from the rival rooters. Again Bob Danforth tackled the Ipswich player and prevented a score. Yard by yard they forced the rival team down the field. Now one, now the other goal was in danger, but surely, persistently, doggedly Dan McEevers played the game with every ounce of courage in his hardened wiry young body.

Five minutes to play—came the warning cry that told him they had just three hundred seconds in which to make good their boast that they would defeat Ipswich if they just had a chance.

Half way down the field Bob Danforth touched Dan on the shoulder. The plucky little quarter-back knew what was coming, and his mind jumped to help his body get around that stone wall of the Ipswich line.

76-56-86-7. Biff, the ball struck Dan's waiting hands; a smooth pass to Bob, a lightning change back to Dan, and he was around Ipswich's end and down the field.

"Good old Dan, good boy. Go it! go-o-o-o it Dan!"

Before him, it seemed a mile away, rose the slender sticks of the goal posts. His heart beat fast and his breath whistled through his nostrils. Behind him as he stole a quick glance over his shoulder, he saw a lanky Ipswich in blue striding after him. He could hear the runner's labored breathing. But now his weeks of patient and dogged training were coming into play. Calling upon his will he made one final gallant effort. The Ipswich man was at his heels but—the goal posts were in hands' reach. A final wild plunge and he was across the line. And the crowd was going mad.

"A touch-down! a touch-down!" The ball was carried back and a goal kick was made in safety but nobody knew or cared very much.

"Nine rahs for McEevers!" yelled a dozen amateur yell masters.

"Rah! rah! rah!" came the cheer with a gusto that could not be mistaken.

"Up with McEevers and Danforth." came the command.

And before they could protest, Bob and Dan, sweaty, dirty and weary, were lifted to the shoulders of the delighted mob and borne back to town.

And even now, eight years afterwards, the boys of Baxter tell about McEevers' touch-down. And Dan was happy.

WINSTON OF THE PRAIRIE.

(Continued from page 306).

curiously. "You are a very wise woman, aunt, but you are a little transparent now and then," she said. "At least he shall have a fair trial without prejudice or favor—and if he fails, as fail he will, we shall find the means of punishing him."

"We?" said the elder lady maliciously.

The girl nodded as she moved towards the doorway, and then turned a moment with the folds of the big red curtain flung behind her. It forced up the sweeping lines of a figure so delicately molded that its slenderness was scarcely apparent, for Maud Barrington still wore a long somber dress that had assisted in her triumphs in the city. It emphasized the clear palor of her skin and the brightness of her eyes, as she held herself very erect in a pose which, while assumed in mockery, had yet in it something that was almost imperial.

"Yes," she said. "We. You know who is the power behind the throne at Silverdale, and what the boys call me. And now, good-night. Sleep well, dear."

She went out, and Miss Barrington sat very still, gazing with eyes that were curiously thoughtful, into the fire. "Princess of the Prairie—and it fits her well," she said, and then sigh-

ed a little. "And if there is a trace of hardness in the girl it may be fortunate. We all have our troubles—and wheat is going down."

In the meanwhile, late as it was, Colonel Barrington and his chief lieutenant, Gordon Dane, sat in his log-walled smoking-room talking with a man he sold his wheat through in Winnipeg. The room was big and bare. There were a few fine heads of antelope upon the walls, and beneath them an armory of English-made shot-guns and rifles, while a row of silver-mounted riding crops, and some handled with ivory, stood in a corner. All these represented amusement, while two or three treatises on veterinary surgery and agriculture, lying amidst English stud-books and racing records, presumably stood for industry. The comparison was significant and Graham, the Winnipeg broker, noticed it as he listened patiently to the views of Colonel Barrington, who nevertheless worked hard enough in his own fashion. Unfortunately it was rather the fashion of the English gentlemen than that common on the prairie.

"And now," he said with a trace of anxiety he had concealed in his eyes, "I am open to hear what you can do for me."

Graham smiled a little. "It isn't very much, colonel. I'll take all your wheat off you at three cents down."

Now Barrington did not like the broker's smile. It savored too much of equality, and, though he had already unbent as far as he was capable of doing, he had no great esteem for men of business. Nor did it please him to be addressed as "Colonel."

"That," he said coldly, "is out of the question. I would not sell at the last market price. Besides, you have hitherto acted as my broker."

Graham nodded. "The market price will be less than what I offered you in a week, and I could scarcely sell your wheat at it today. I was going to hold it myself, because I can occasionally get a little more from one or two millers who like that special grade. Usual sorts I am selling for a fall. Quite sure the deal wouldn't suit?"

Barrington lighted a fresh cigar, although Graham noticed that he had smoked very little of the one he flung away. This was, of course, a trifle, but it is the trifles that count in the aggregate upon the prairie, as they not infrequently do elsewhere.

"I fancy I told you so," he said.

The broker glanced at Dane, who was a big, bronzed man, and, since Barrington could not see him, shook his head deprecatingly.

"You can consider that decided, Graham," he said. "Still, can you, as a friendly deed give us any notion of what to do? As you know, farming, especially at Silverdale, costs money, and the banks are demanding an iniquitous interest just now, while we are carrying over a good deal of wheat."

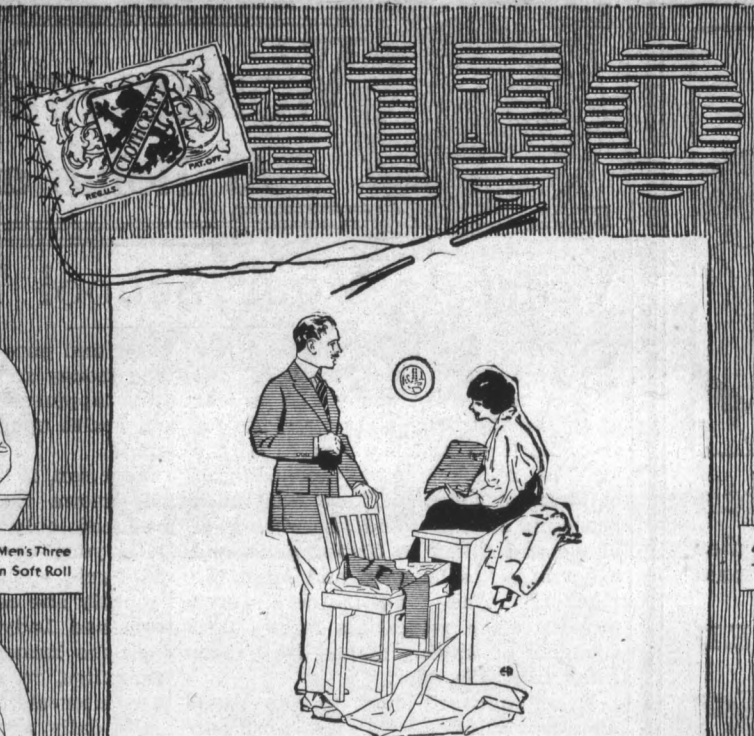
Graham nodded. He understood why farming was unusually expensive at Silverdale, and was, in recollection of past favors, inclined to be disinterestedly friendly.

"If I were you, I would sell right along for forward delivery at a few cents under the market."

"It is a trifle difficult to see how that would help us," said Barrington, with a little gesture of irritation, for it almost seemed that the broker was deriding him.

"No," said the man from Winnipeg, "on the contrary, it's quite easy. Now I can predict that wheat will touch lower prices still before you have to make a delivery, and it isn't very difficult to figure out the profit on selling a thing for a dollar and then buying it, when you have to produce it, at 90 cents. Of course, there is a risk of the market going against you, but you could buy at the first rise, and you've your stock to dole out in case anybody cornered you."

(Continued next week).



Why We Buy "4130"

To be successful we retailers must above all else consider *your needs, your taste, the real value* that you get from what you buy of us.

No argument, no tempting profits could induce us to buy clothing unless we felt sure it would satisfy you in fabric, style, fit, comfort and long wear.

It is easier for us to know this about No. 4130 Clothcraft Blue Serge Special than almost anything else you will see in the store.

"4130" is guaranteed pure wool—we know it has the stuff in it to make it keep its shape and outwear two suits of cheaper fabric (often at higher price).

Then, too, it's made in the Clothcraft Shops where every little operation has been studied and improved, where thousands of dollars are saved, and put back into better design, better fabrics, better workmanship. But it costs you only \$18.50.

Drop in at the Clothcraft Store. Whether you buy or not we'll be glad to see you and show you not only "4130" but many other pleasing Clothcraft Suits and Overcoats from \$10 to \$22.

We also carry a Spring weight Clothcraft Blue Serge Special at \$15, known as No. 5130.

The Clothcraft Store

(in your town)

Write to The Joseph & Feiss Co., 623 St. Clair Ave., Cleveland, Ohio, for their new Style Book, a sample of the all-wool fabric used in Clothcraft "4130" and a personal note of introduction to the Clothcraft Store nearest you.



4130 Men's Three Button Soft Roll



4130 Young Men's Two-Button



4130 Men's Three-Button



4130 Young Men's Three-Button Patch Pockets Soft Roll



4130 Young Men's Three-Button



4130 Young Men's Double Breasted



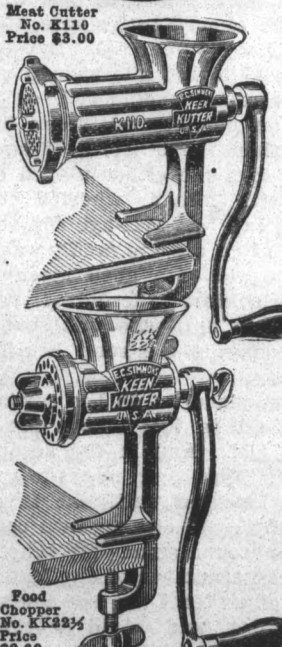
4130 Young Men's Three-Button Box Back



4130 Young Men's Three-Button Soft Roll



Tom Profit Smiles



Meat Cutter No. K110 Price \$5.00

KEEN KUTTER

Meat Cutter

—makes me smile to think of the good things there'll be, after killin' time—I can fair smell the sausage meat a-sizzlin' in the pan *now*—'an I'm jus a-rollin' a big bite o' head-cheese around in my mouth. That *used* to mean hard work for the wimmin folks, but not *now*, 'cause they use a

KEEN KUTTER

Meat Cutter

for mincin' the pork for the winter grub. Ever eat meat cakes made from good beef with a sprinklin' o' minced onion an' celery salt an' some dried sweet peppers in 'em? You didn't? My! My! Your palate's a-goin' to hev a season o' enjoyment, after you get a Keen Kutter meat cutter or food chopper a-goin'. We use both kinds, reg'lar. They're sold on a warranty by the Simmons people an' the dealer's authorized to give back the money ef you don't like 'em.



Food Chopper No. K122½ Price \$2.00



Tom Profit

When writing to advertisers please mention the Michigan Farmer

Maple Sugar Makers NOW IS THE TIME



to fit up for sugaring. If you want the best and handiest Evaporator on the market, buy the I. X. L. Write us for catalog and prices. Mention Michigan Farmer.

Warren Evaporator Wks., Warren, O.

MAPLE SYRUP MAKERS The Grimm Evaporator

used by principal maple syrup makers everywhere. Saving of time and fuel alone will pay for the outfit. Write for catalogue and state number of trees you tap.

GRIMM MANUFACTURING CO.
169-621 Champlain Ave., N. W. Cleveland, Ohio.

ELECTRIC Steel Wheels Save YOUR Back



Save draft—save repairs. Don't rut roads or fields. Send today for free illustrated catalog of wheels and wagons.

Electric Wheel Co., 35 Elm St., Quincy, Ill.

Farmer Wanted—Middle aged married man to take charge of small farm near Detroit. Must be thorough farmer and hustler. No boozers. Write full particulars—age, number in family and give references. Address Box K-10, Michigan Farmer, Detroit, Michigan.

Cider Barrels For Sale. Whiskey barrels, half barrels and kegs for cider. Mich. Barrel & Bag Co., 283 Franklin St., Detroit. Phone M 3192.



Just A Scratch

BUT it needs looking after just the same. First aid treatment with

CARBOLATED Vaseline

Reg. U. S. Pat. Off.

will help it to heal quickly and prevent risk of infection.

Carbolated "Vaseline" contains 1½% of Carbolic acid, blended with a pure "Vaseline" base. It is a most effective antiseptic dressing for cuts, bruises, boils, and skin irritations of all kinds, such as eczema, poison ivy and barber's itch. Also good for corns.

Sold by drug and department stores everywhere, or sent to you direct on receipt of price—20c for a full size bottle. Free booklet on request.



CHESEBROUGH MFG CO.
(Consolidated)
33 STATE STREET, NEW YORK

DON'T Pay Two PRICES HOOSIER Stoves FREE

To try in your own home for 30 days. Show your friends. Freight paid by us. Send it back at our expense if you do not want to keep it. You can get the best at actual factory prices. Are heavily made of the highest grade selected material, beautiful ornamentation and finish, with improvements that absolutely surpass anything ever produced. The Best in the World. Guaranteed for Years by a Two Million Dollar Bond. You can save enough on a single Hoosier Stove to buy your winter's fuel. All HOOSIER STOVES Guaranteed for years. Send Postal today for Large Free Catalog "and prices." Large assortment to select from. No Obligations.
HOOSIER STOVE CO.,
131 State St., MARION, IND.

Beacon Burner FREE
FITS YOUR OLD LAMP.
100 Candle Power Incandescent pure white light from (kerosene) coal oil. Beats either gas or electricity. **COSTS ONLY 1 CENT FOR 6 HOURS.** We want one person in each locality to whom we can refer new customers. Take advantage of our Special Offer to secure a Beacon Burner FREE. Write today. AGENTS WANTED.
HOME SUPPLY CO., 28 Home Bldg., Kansas City, Mo

NEAL 3 DAY CURE
FOR DRINK HABIT

Send for book explaining NEAL WAY—you may be able to save your loved ones. Over 60 institutes. No hypodermics used. No bad after effects.
NEAL INSTITUTE CO.
73 Sheldon Ave., 323 Woodward Ave.,
GRAND RAPIDS, MICH. DETROIT, MICH.
Drug habits also successfully treated.

Trained Nurses—The Grace Hospital Training School for Nurses is to be enlarged on account of the increase in capacity of Hospital and new buildings. Applications solicited from young women who wish to take up nursing as a profession. Address Principal, GRACE HOSPITAL TRAINING SCHOOL FOR NURSES, Detroit, Mich.

Just Say "Saw your ad. in the Michigan Farmer" when writing advertisers

Woman and Her Needs

At Home and Elsewhere

What Is Your School Teaching?

SCHOOL bells began ringing a few weeks ago, and mothers the country over, some with a tear at seeing the baby start off alone for the first time, and many more with a sigh of relief, started thousands of children to school. There was much brushing of hair and scrubbing of hands and filling of dinner pails, and exhortings "to be good and mind the teacher." And fond mothers gazed proudly after retreating forms until thoughts of waiting dishes drew them away from the door.

Every outward duty to the small ones was fulfilled. But just what percentage of us, the million or more mothers in the United States, stopped to think if our schools were giving our boys and girls the right sort of preparation for life? Most of us accept the curriculum as the school board hands it out to us, sometimes wondering dazedly why they crowd in so many more subjects than they did when we were starting. A very few of us think it might be improved, but who of us has thought seriously that our school courses really do next to nothing to prepare the children for the real business of life, living?

When all has been said, what did you get in school beyond the ability to read, write and "figure," that really has helped much? You studied some physiology, and if you have applied your knowledge you may have been benefited by it. But with the power to read you could have learned outside of school all that you learned in, about your body and its care. Who of you could bound all the states, or diagram a sentence or name all the battles in the French and Indian war? And if you could, how would it help you any except in the sense of personal satisfaction? Yet you could do all those things once, you had to do them before you got your diploma. And as soon as you got your diploma you speedily forgot all you had learned and went about the serious business of learning how to farm or run an engine or keep house. The things you really needed to know in order to make your living were put off until you had jammed your mind with a lot of stuff you promptly forgot, in your keener interest in something vital.

And your children are doing the same thing. Perhaps in your school they teach sewing and cooking, each one hour a week, and the boys have manual training for a similar time. How much sewing can your daughter learn in one hour out of 168? Very little more than you have taught her at home, if you have been a careful mother. How much carpentry can your boy learn in that one hour a week? How much does either one of them learn of the business of earning a living and making a home, which in spite of theories, is the supreme end of existence for the human family up to date?

When your daughter leaves school does she have any conception of her real mission in life, the mission of being a home-maker, entrusted with the health of husband and children? Does she have even a glimmering of an idea that, upon her ability as a cook, will depend, in large measure, her husband's success in his business, her children's success in life, in work, in play, yes, even their very lives? Does she know the health is dependent upon sane rules of living, that plain, wholesome, well-cooked foods, pure

water and pure air mean more to her than money and ease? Does she know that happiness depends upon health, and health upon food rather than medicine?

Your son, if he is an up-to-date farm lad, knows that good stock can be produced only by scientific feeding. Does your daughter know that the same rule applies to sturdy children? Probably she can make fudge and sea foam and Lady Baltimore cake. But does she know that those things are trimmings, to be indulged in only at rare intervals, while the human animal's daily rations should consist of milk, meat, eggs, good bread and butter, vegetables and fruits in properly balanced quantities? Food to be chewed thoroughly and not washed down with coffee, tea or water? Does she know that cooking is an exact science, and that if she follows clearly defined rules she can be as sure of success in that art as in extracting square root?

Is she being taught anything about the sacredness of motherhood? Or is she hearing of it as a disagreeable duty to be shunned if possible? Is she being taught that life consists not in the abundance of possessions, but in friendship and service? Is she being given intelligent instruction about the sort of love on which homes are built, or is love to her the hysteria described in trashy novels.

These are the things your daughter should know when she steps out of school with her diploma, for they are the only things she will need. The smattering of drawing and music and French and German and higher mathematics will have no place in her life after she leaves the schoolroom. Doesn't it seem foolish to waste so many precious hours over them and leave untouched so much that is really vital?

DEBORAH.

LETTER BOX.

Don't Let Twelve-year-old Girls Sew.

Dear Deborah:—Like Mrs. F. L. S., your articles generally "hit the spot." But when you talk of teaching a ten- or twelve-year-old girl to do all her own sewing. I felt that I must drop my own work and enter a protest.

Now, don't think for a minute that my girl of twelve was not a help to me. I had poor health at the time and she took almost entire care of a big healthy baby a year old. But she wasn't allowed to lift him around until she was round shouldered, or to carry him on one hip until one hip was lower than the other, as I have seen done. But she either played on the floor with him or wheeled him about in his cab. At that age she and her brother often did the family washing with the aid of a good machine and my overlooking. She did not sew on the machine until she was seventeen, and today is a strong healthy girl of twenty.

In the first place, to do the sewing by hand would be too tedious for a ten-year-old girl. And in the second place, I don't think a girl ought to run the sewing machine until she is at least sixteen. I will cite my own case but can look around among my school-mates and see a number of duplicates. At the age of eleven I ran the sewing machine all day, and would be tired out at night. From that time on I sewed on the machine, and at fourteen made my own clothing.

At thirteen I had a very severe

time with my right side. I was generally obliged to spend two days every month in bed. And I have always had to doctor since being a married woman. As a child I grew fast and appeared strong, and the remark was often made, "She's large and strong, she can stand it." But they would say of my cousin, who was small for her age, "We must be careful of her." My cousin did not sew on the machine until she was sixteen, never did any washing to speak of, until that age, and she is a much stronger and healthier woman than I, and I am three years the younger.

From my observations this is generally the case. A farmer is nearly always very careful not to put a colt at too hard work, and certainly a young, growing girl is as worthy of care, so she may be a strong, healthy woman.

I believe in letting "father help" when a woman or the baby is not well. My husband has helped many a time. I also believe in folding and putting away all dish towels, wash rags, knit underclothes, napkins and dish aprons as soon as perfectly dry. Once during a four weeks' siege of strawberries we only had one cake in the house. But we had strawberries and cream for breakfast and shortcake for dinner and supper. As we had never had a plenty of strawberries before it seemed wicked to let them spoil, and I couldn't bake cake and care for the strawberries, also.

The only other time I ever differed with Deborah was in her article on wash women. I did so want to tell her that if the wash women were paid more perhaps they would take pride in clean clothes. It was my experience in doing washing that one only got about enough to pay for the wood used, not saying anything about labor. Hoping I'll not find the waste basket, I am, respectfully, Mrs. F. L.

QUINCE RECIPES.

BY DR. L. K. HIRSHBERG.

"Eat quinces and die" is a Swedish proverb, which proves the delectability of this dainty. It is indeed a fine winter delicacy. When they are carefully cooked no fruit can surpass them in delicacy of flavor. Baked quinces can be prepared in two ways. They can be slowly baked until they are tender, in a covered dish in the oven, or they can be boiled until they are partly done and then baked. To bake them in the first way, wash and core them, and fill the core cavities with granulated sugar. Arrange them in a buttered baking dish and pour water around them. Cover them closely and let them cook slowly for about an hour.

When they are almost done remove the cover and cook a little more rapidly. Then remove the quinces and reduce the syrup in which they were cooked, by boiling it rapidly for a few moments, pour it over them and chill them. Serve with a tablespoonful of whipped cream on the top of each.

To cook them in the second way, peel them and parboil. Put them in a baking dish and pour the water in which they were cooked, made into syrup with the addition of sugar, around them. Bake them, covered for an hour, or until they are tender, remove them, reduce the syrup and pour it over them, and serve cold.

An easily made quince pudding is this, and it is the sort of pudding to serve on one of the first chill autumn days. Choose half a dozen fine large

quinces, and boil them until they are soft. Then peel, core and mash them and add the yolk of four eggs, beaten with a pint of cream. Sweeten to taste and season with ground ginger and cinnamon. Bake in a moderate oven for three-quarters of an hour and serve with cold custard sauce.

There are several ways of making quince tarts. One way is to combine the quinces with apples in this manner. Peel and core two pounds of well-flavored apples and cut them in thin slices. Arrange them neatly in a deep pie dish. Add a pound of quinces that have been sliced thin and stewed over the fire in a very little water, some sugar, and a bit of butter. Add a generous quarter of a cupful of sugar to the fruit, a little grated lemon rind, and the water in which the quinces were stewed. Cover it with a sheet of rich paste, brush it with egg white and bake for 40 minutes. Sift powdered sugar over the top and return to the oven to brown.

Another quince tart recipe calls for stewed quinces, placed in a cooked tart shell and eaten cold with whipped cream, slightly sweetened over it.

A third tart is made in this way: Peel and core half a dozen medium-sized quinces and cook them until they are soft, in water enough to cover them. Drain them and put them through a sieve. Add a cupful of sugar and the yolks of four eggs well beaten, with two cupfuls of milk. Line a deep pie dish with crust and fill it with the quince mixture. Bake it for three-quarters of an hour in a moderate oven and cover it with meringue. Brown it and serve cold.

Quince omelet is made with jelly. Make an omelet of eight eggs, beaten with a tablespoonful of sugar, a wine glassful of wine, and three tablespoonfuls of milk. Cook it until it is set, and then spread it with quince jelly and fold it.

To make quince puff, peel, core and slice half a dozen apples and a quince. Add half a cupful of water. Cover them and cook them slowly for half an hour, then rub them through a sieve. Cook this pulp with three eggs, beaten with half a cupful of sugar. Cool it and fold in the beaten whites of the three eggs. Chill, and serve it.

To make quince jelly, wash, core, quarter, and chop the quinces and cover them with water. Then simmer them until they are soft. Put them in a jelly bag and let them drip. Measure the juice and allow an equal quantity of granulated sugar. Put the sugar in the oven to warm and boil the juice for 20 minutes. Add the sugar and bring to the boiling point, then pour into scalded jelly tumblers.

To make quince chips, pare, quarter, core, and slice the quinces. Weigh them and allow a pound of sugar for every pound of fruit. Cover the fruit with water in a porcelain kettle and boil for ten minutes. Drain it and put it in a porcelain kettle with the sugar. Add half a cupful of water. Melt and dissolve the sugar slowly and cook it till the fruit is red and transparent. Lift the pieces of quince out of the liquid carefully with a skimmer and dry them on a sieve. Roll them in sugar and use them as sweetmeats.

HOME QUERIES.

Household Editor:—Would you let a child of four eat green cucumbers and green corn?—Anxious Mother.

By no means. Children of this age should be confined to milk, eggs, well done beef, mutton and chicken, and such vegetables as spinach, green peas, a little lettuce, beans and others easily digested.

Household Editor:—How should knives and forks be placed when setting the table?—Waitress.

The knives and spoons should be at the right of the plate and the forks at the left. The one to be last used should be nearest the plate. Knives should always be placed with the sharp side toward the plate.

Household Editor:—Will you please tell me how good fermented wine is made from tame grapes?—H. J.

The following recipe is from "Practical Cooking and Serving": "Wash and stem the grapes and squeeze through a coarse cloth. Allow one quart of soft water to each three quarts of juice, and three pounds of brown sugar to four quarts of juice. Let stand six weeks in an open vessel covered with a light cloth to exclude dust, and then bottle."

Household Editor:—I have seen some of the recipes for pickling cucumbers, for home use I suppose. I would like to know how to preserve them in a commercial way, especially dill pickles.—Reader.

The following recipe for making dill pickles for commercial use is from "A Complete Course in Canning," made up of articles previously published in "The Trade." As it contains alum, I would suggest that you write the Department of Agriculture for its bulletin on commercial canning. Most of the bulletins are free, though occasionally one costs five or ten cents.

"Have well-coopered barrels; take out head and in the bottom place a handful of dill with a clever springling of mixed spices; fill barrel with cucumbers, finishing the top with dill and spices. Head up the barrel and fill through the bung with 50-degree brine to each 45 gallons of which has been added two pounds of alum and two gallons of 45-grain vinegar. Bung up barrel; bore a hole through the bung in which place a nipple connected with a half-inch rubber tube, the end of this dropping in a bottle filled with water."

I would like to have Mrs. G. S. try my way of making watermelon preserves. I have made them this way ever since I was a girl of 15, and my grandmother taught me. Pare the rinds and cut in inch cubes. For every eight pounds of rind add four pounds of granulated sugar. Stir until the cubes are covered with sugar and stand away over night in a crock. In the morning the cubes will look all clear and be swimming in water. Put on the back of the stove, slice in two lemons, add two pounds of raisins, and cook slowly until thick. They will keep in a crock.—Mrs. F. L.

Household Editor:—I see in your paper the request of Mrs. T. F. R. for a recipe to make apple catsup. Following is one which I have tried and think quite good: Peel and quarter a dozen sound tart apples, stew them until soft in as little water as possible, then work through a sieve. To a quart of the sifted apples add a teaspoonful of sugar, one teaspoonful of pepper, one of cloves, one of mustard, two of cinnamon and two medium-sized onions, chopped very fine. Stir all together, adding a tablespoonful of salt and a pint of vinegar. Boil one hour, or until about the same as tomato catsup. Bottle while hot, sealing very tight.—Mrs. F. H.

Household Editor:—Will someone please give me directions for cleaning white kid gloves?—G. V.

They are best cleaned by putting on the hands and washing thoroughly in gasoline, rubbing the spots with a clean cloth dipped in the gasoline, or a clean soft brush.

Household Editor:—Will you please print the origin of hay fever, and what is the cure, if any?—Subscriber.

Hay fever is caused by the presence in the air of the pollen of certain grasses. It is more common among women than among men, especially of highly nervous individuals, and in a large percentage of cases is hereditary. Certain drugs give some relief, but the effect of these wears off in time and necessitates larger and doses. Many of the medicines advised for its cure contain cocaine and a habit for this drug is formed. Many people are helped by going to a cooler climate when the attack comes on each year, but as they become used to that change they find it necessary to go further north.



You are cooking against odds without a Majestic.

Half your life is spent in fixing food—each year you and your range are companions in cooking a thousand meals.

Your range should make it easy for you to cook right always. "Majestic" is the range that takes the task out of cooking and puts pleasure into it. Built of malleable and charcoal iron, it resists rust and wear three times longer than ordinary ranges. Put together with cold-rivets; no putty used; joints

stay tight always and heat stays in, requiring less fuel to maintain uniform heat. Heat circulates evenly to all parts of oven; you never have to turn "the baking" in a Majestic.

The Majestic costs less to buy because it outwears three ordinary ranges, saves in fuel and repairs and gives better results in cooking.

[A 15 gallon all copper reservoir heats water as quickly as a kettle on a stove top. Oven door lowers onto heavy braces; oven rack stays level, under load, when pulled out. Reservoirs flush with stove top have aluminum lids.]

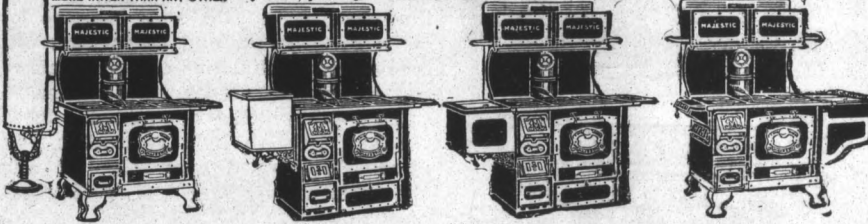
You would get a Majestic if you knew what it would mean to you. Investigate! If you don't know the Majestic dealer near you (there is one in every county of 40 States) ask us; and get "Range Comparison" describing Majestic features fully.

Majestic Mfg. Co., Dept. 21 St. Louis, Mo.

Great Majestic Malleable and Charcoal Iron Range

PHI-EXTENSION WATER FRONT ON THIS RANGE HEATS A THIRD MORE WATER THAN ANY OTHER

(One quality—many styles and sizes, with or without legs)



Catch the Hog Dollars You are Losing

MARKET more pork products—and less hogs! To get the largest return in LARD; to produce SAUSAGE that will make reputation for you, and bring the highest prices, use the

"ENTERPRISE" Sausage Stuffer and Lard Press

Iron Cylinder Bored True gives close, accurate fit of plunger plate, without jamming. Air bubbles are prevented and spoilage of sausage is avoided by the improved and patented "ENTERPRISE" Corrugated Spout

1-qt. Size, Japanned, \$5.50
Made in nine sizes and styles
2- to 8-qt. Japanned or tinned
Used as Fruit Press, too

Cut the sausage meat with the "Enterprise" Meat-and-Food Chopper. This chopper CUTS—it has a four-bladed steel knife. It doesn't mangle and mash the meat, squeeze out its juices, like some choppers do. It cuts all kinds of meat, vegetables, bread, fruit; and is a constant kitchen convenience and economy in turning "left-overs" into dainty dishes.

Your dealer can supply you. Insist on "Enterprise." Family Size, \$1.75 Large, \$2.50
COOK BOOK FOR 4c STAMPS. The "Enterprising Housekeeper" with 200 tested recipes and household hints.

The Enterprise Mfg. Co. of Pa., Dept. 115, Philadelphia



DIRECT \$5 FROM THE MILLS \$8 SWEATER COATS

Men's and Ladies' \$8.00 Jumbo and Shaker sweatercoats, hand knitted from the very heaviest and finest quality pure wool yarn.

Sent direct to you from the Mills, all charges prepaid for \$5 with the distinct understanding that you may return it after 10 days trial and receive your money back, if it is not absolutely satisfactory.

State color, size and style when ordering.

—OUR GUARANTEE—

We absolutely guarantee these sweatercoats to be full \$8 retail values, to be pure wool yarn and if washed according to our directions, they will neither fade, shrink or lose their shape. Your money instantly refunded if any sweater is not as represented by us.

ADDRESS
DEPT.
A

SENECA KNITTING MILLS
P. O. BOX-600 BUFFALO N.Y.

FREE

Our beautiful illustrated catalogue showing styles and Wholesale Mill prices for Men's and Ladies' sweatercoats, hosiery and underwear. Sent free on receipt of postal. Write for one at once.

When writing advertisers please mention The Michigan Farmer

Light Weight Cushman Engines For All Farm Work

"I have had lots of experience with different gasoline engines," writes Dave Linton, Ransom, Ill. "We have all makes in this neighborhood. Some do what their makers claim, but it takes a team of horses and a crowbar to get them on the job. A Cushman of the same horsepower will do the same work, and a 14-year-old boy will move it from one job to another."

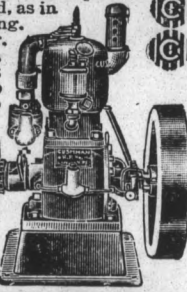
"Light weight, full horsepower, least vibration and great range of speed, has made the Cushman not only the farmer's best chore boy, but his wife's as well."

4 H. P. Only 190 lbs. Easy to Move Around

This is used for all regular light jobs, and can be attached to other machines, such as grain and corn binders, etc. 8 H. P. weighs only 320 lbs., for heavier work, as grinding, sawing, etc., and can be attached to hay balers, corn pickers, etc., to save a team. Throttle Governor gives steady power, with extra power quickly when needed, as in sawing and grinding.

Schebler Carburetor. 4-Cycle. Not a cheap engine, but built to do work no other engine will do and run without trouble. Sizes 4 to 20 H. P. On skid or truck. 40-page Book free.

Cushman Motor Works
526 North 21st Street
LINCOLN, NEBRASKA



NISCO

"The TROUBLEPROOF SPREADER" is the choice of the business farmer who values spreader perfection. It positively will do more and better work in less time than any other machine. It took us 15 years to perfect this mechanical masterpiece which we know to be

100% EFFICIENT

Thoroughly pulverizes the manure, spreads it wider and more evenly than any other spreader. Easy to load, since sides are only 41 inches above ground. Bed is from 8 to 5 inches deeper than any other so-called "low down" spreader. Built for thorough work and lasting service.

FREE Circular in Colors and Descriptive Catalog

Gives reasons why "Nisco" and "New Idea" are the "Best Spreaders on Wheels." Shows why our machines are practically trouble-proof. Settle the spreader question for all times by writing us Today.

New Idea Spreader Co., Box 19 Coldwater, O.

BOWSER FEED MILLS

GROW
HEALTHY
STOCK

Crush ear corn (with or without shucks) and grind all kinds of small grain.

Handy to operate—lightest running. 10 sizes: 2 to 25 h. p., capacity 6 to 200 bushels. Conical shape Grinders. Different from all others. Also make Sweep Grinders.

Write for Catalog and folder about the value of different feeds and manures.
D. N. P. BOWSER CO.
South Bend, Ind.



6 CORDS

That's what you can do with

THE IRELAND WOOD SAWING MACHINE

Table mounted on grooved rolls. Saw above center so it cuts down and in—not against operator. Logs moved easily—almost self feeding. Does a week's work in a day. Pays big dividends. Write for printed matter—also our Drag Saw Machines, Saw and Shingle Mills and Hoists. Unequalled values on Canvas Belting. Ireland Machine & Foundry Co., 33 State St., Norwich, N.Y.

Michigan White Cedar FENCE POSTS

GEORGE M. CHANDLER, Onaway, Mich.

Government Farmers Wanted:—Age 21 to 50. Make \$125 monthly. Write, OZMENT, 17 F. St. Louis, Mo.

Farm Commerce.

Selling What You Raise.

CONSUMERS of farm produce are creatures of impulse. Moreover, they are something like the small boy who plays at certain games at certain seasons. It is quite impossible to say why, but it is a fact, nevertheless, which must be recognized by the farmer if he hopes to dispose of his products at the highest prices.

This does not hold good in the case of staple articles, like potatoes, excepting the earlier varieties, but it does hold good with garden products, berries and some sorts of fruits. One woman refused to buy peaches because the season for the best early ones had passed and the late ones were not yet up to the standard of ripeness she required. Such little things have a far-reaching effect upon the business of any farmer who depends upon the sale of these products for a portion of his income.

Make it a Rule to be on Time.

Get your goods in at the proper time for your locality. If you are located near a city and go in yourself, study the peculiarities of your market and endeavor to meet those whims to satisfy prospective customers. It is the one way to help sell what you raise. Without a knowledge of this character the grower works to great disadvantage.

If you cherish the impression that consumers in cities will buy anything offered them in the shape of farm produce, get the idea out of your minds at once. They will not do it. The desirable trade is critical and after you have run the gamut of the different grades of buyers you will find at the end that the cheapest of them all is perhaps the worst to deal with. They are looking for cheap goods and they will not pay as much as your product is really worth because they know that you would not offer it to them if you could sell it anywhere else. The time has passed when the whims and fancies of buyers can be ignored.

Second in Importance to Production.

It is well that agricultural colleges are introducing instruction in selling into their courses. They ought to emphasize it as second in importance to farm operations. The first step, of course, is to grow the best possible product for sale, but like unto it is the second, to learn to sell them for the highest price.

A well-known firm that makes a certain article to be sold to householders does not leave the solicitors who are to sell them in ignorance of the best methods of handling customers and disposing of goods, they maintain expensive schools where these salesmen are taught free of cost the scientific methods of selling. Nothing is left undone which will increase their ability for service. Then after they are done with the school they are persistently followed up with written or printed instructions and are given the latest development of the selling department through the mail or by demonstration as often as anything worth while is developed. The object of this is obvious. But who does this for the farmer? Who teaches him the necessity for understanding the principles of salesmanship? Who tells him how to prepare his products for market in the best way? Who shows him how he can sell them the best?

Until recently the only instruction farmers had was through the agricultural papers, and they have done yeoman's work in this direction. Some, of course, are natural salesmen and require very little instruction. Others are not salesmen and require much. The writer's own father, one of the

most successful farmers in his community so far as the development of his farm and the production of crops was concerned, was woefully deficient in selling ability and had he not been fortunately situated much of his work would have gone for nothing because of this fact.

Know Your Market.

The first essential is to know the market where one purposes selling his goods. If he understands what will be wanted at a certain time he will be able to supply the want. If he ignores this knowledge he will grope in the dark and fail to secure as much return as he might. This is obvious upon reflection, but it is true that comparatively few in times past have reflected upon this phase of their problem. A week spent in the market would not be too much. It is well to know thoroughly the peculiarities of each separate city and locality where one may expect to sell goods.



To Hold a High-class Trade the Farmer Must, After Growing Products of Merit, Grade and Pack them in a Manner Approved by Customers.

If, therefore, a farmer would obtain the highest price for his products he must, so far as possible, know his markets. If he would offer in any particular market those articles, or products, which he hopes to dispose of at a profitable figure he must know the market.

For example, here is a city with a large Italian population and there onions, leeks, and similar vegetables are always good sellers. Italians consume a great many such vegetables and will always take them. If they come very early in the spring so much the better. They will bring a higher price. On the other hand, it would be quite useless to undertake to sell them extensively in localities where Americans predominated. They might take onions in considerable quantities but they do not care for leeks.

A Place for Every Product.

Certain vegetables, like potatoes, etc., will be bought freely by everyone. But where the Irish dwell in largest numbers is the best place for cabbage, and the same observation holds good with reference to Germans and Hollanders, though they do not always use it in the same way. The conditions which govern are substantially the same, however, and the farmer who hopes to make the most of his sales will take pains to investigate the peculiarities of the market he is to supply.

A few years ago lettuce was the only salad plant that was bought free-

ly. Now a dozen varieties sell and most markets cannot obtain too many of them. Salad plants do not bring high prices, but they do not cost much to raise, are easily picked and packed and are always salable. It is well to know whether or not your market favors them, and if it favors one variety over another. Then you can cater to its peculiar tastes and achieve a success in selling where otherwise you would fail.

One might, perhaps, cite many more instances of this character, but detailed information is not intended. It is merely to lay down the broad principle that the farmer, to be successful, must sell his goods. That is the thing which will be paramount after the crop has been raised. Until he does sell them they are useless and he has grown them at a loss. But understanding his market and relying upon his knowledge of salesmanship to assist him he can easily turn his goods into money and insure a profit worth while as the result of his labors.

Average Farmer a Poor Salesman.

Being raised on a farm where he could observe how selling should not be done, and having spent 15 years in the markets of one of the great cities of the country the writer knows something of this subject from both ends. It is his unhesitating declaration, after studying both sides of the

question that the average farmer is still deficient in his salesmanship and that he must do much more investigation and studying in this direction before he can hope to accomplish the purpose in raising produce, to sell it for a reasonably high price.

It may be unfair to place all farmers in the same class, but it must be confessed that after seeing hundreds of thousands of packages come into market from every part of the country in a very unmarketable condition, one cannot say much else. During the past two or three years, since farmers have been shipping through co-operative associations this condition has begun to change, but the improvement is slow and it will require many years more of educative work before the desired result will be accomplished. But farmers' organizations of various kinds are doing good work for which they deserve to be commended. Farmers themselves are coming to appreciate more and more the great importance of the selling end and they are undertaking changes of their own volition which are making the future far more hopeful.

New York.

BURTON ALLBEE.

A short time ago a sale was made of Wyoming feeder steers in the Omaha market at \$8.60 per 100 lbs., the highest price ever paid in that market for feeders. The lot consisted of 62 head of three-year-old Shorthorns and Herefords, the latter predominating, their average weight being 1194 lbs.

Crop and Market Notes.

Michigan.

Kalkaska Co., Sept. 25.—Weather conditions have been variable, and frost damaged late potatoes and corn in some localities. Silo filling has been in progress, many new silos having been erected this season. Fifty per cent more wheat than usual has been sown; there is considerable rye yet to be sown. The bean crop is poor, having been affected by too much moisture. Stock has been bought up closely at profitable prices. Wheat is around \$1; potatoes 50¢@60¢; oats 50¢; butter-fat 30¢; eggs 20¢; chickens 12¢.

Isabella Co., Sept. 26.—Beans are mostly harvested, and a good crop. But little fall wheat is being sown. Oat and wheat harvesting is nearly done; oats were 50 per cent of a crop; wheat turned out poorly, but of good quality. Potatoes are a good crop and corn is fine. Butter 25¢; cream 20¢; eggs 21¢; oats 40¢.

Shiawassee Co., Sept. 29.—Beans and clover seed are being harvested, the latter is well filled. Corn cut and large acreage of wheat sown. Some are starting to harvest beets. Beans are yielding eight to 12 bushels per acre, and pick three to five pounds. Cattle are scarce. Apples are a good crop. Wheat 97¢; oats 44¢; beans \$2; butter 25¢; eggs 24¢.

New Jersey.

Monmouth Co., Sept. 21.—Weather is very dry and pastures are about gone. Corn, potatoes, onions and apples are good. Corn cutting is well under way. About the usual acreage of wheat and rye will be sown. Hogs are about the only live stock ready for market, and they are few and high in price, some being offered at \$15 per cwt. for October delivery. Rye 60¢@90¢; wheat 90¢@1.10; apples \$2@2.75 per bbl; eggs 35¢@45¢; dairy butter 30¢.

Morris Co., Sept. 18.—The weather is hot and dry, and there has been no rain for a long time. Some farmers have stopped plowing for winter wheat and rye on account of drought. Corn is good; potatoes are good; but only enough raised for home use. Apples are a fair crop; peaches were abundant, and demand was good. Wheat \$1.10; rye 90¢; buckwheat 85¢; eggs 34¢; butter 36¢.

Pennsylvania.

Crawford Co., Sept. 26.—Corn is being cut and is a good crop. Quite a large acreage of wheat is being sown. Potatoes 80¢; winter apples 50¢ per bushel; wheat 95¢; butter 30¢; eggs 26¢ per dozen.

Lancaster Co., Sept. 24.—The corn crop is not normal. Potatoes half a crop; a few onions. Many beans have dried before ripening. Clover seed is nearly a complete failure. Apples are a fair crop. More wheat is sown than usual. Live stock is scarce. Wheat \$1@1.10; eggs 26¢; butter-fat 33¢.

Ohio.

Sandusky Co., Sept. 25.—Weather is fine; corn about half cut. A large acreage of wheat sown; late potatoes promising; clover seed yielding well. Winter apples a light crop. Hog cholera raging. Loads are being sold freely. Wheat \$1.04; oats 46¢; corn \$1.05 per cwt; hay \$12; butter 25¢; eggs 25¢; old hens 12¢@13¢; young 14¢; old ducks 7¢; young 9¢@10¢.

Harrison Co., Sept. 26.—The wheat acreage is large and growing nicely. Corn about one-half a crop. Potatoes are very poor, and clover seed yield will be small. Quite a few young cattle here, no sheep for sale, hogs are plentiful. Apples are plentiful and so are peaches, the latter selling at 25¢ per bushel; eggs 25¢; butter 30¢.

Highland Co., Sept. 27.—Corn one-half a crop; potatoes and onions are scarce. Clover seed yield is light. A fair crop of apples in some orchards. Usual amount of wheat sown. Fat hogs are scarce, but fall pigs are very plentiful. Hogs 8½¢; cattle 5¢@7¢; old corn \$1; wheat \$1.05; hay \$15; butter 25¢; eggs 23¢.

Indiana.

Davies Co., Sept. 22.—Corn yield is about an average. Late potatoes, onions, beans and clover seed will be average crops. Apples and late fruits are yielding well. Large acreage of wheat and rye were sown. There is a shortage of hogs and cattle. Hogs 9¢; cattle 9¢; butter 30¢; eggs 22¢; chickens 14¢; milch cows \$50@100; horses higher than in summer.

Elkhart Co., Sept. 18.—Late corn and potatoes look well. Silos are being filled. Much smut on corn. Prices are good. Butter 30¢; eggs 26¢; chickens 12¢; hogs 8½¢.

Wayne Co., Sept. 29.—Clover seed yielded well. Late potatoes will be fair. Apples scarce. Corn will be a good crop. Silos are filled. The usual amount of wheat was sown. Pastures furnishing good feed. Stock is doing well. Wheat \$1; corn 80¢; oats 45¢; hay \$15@17; hogs \$8.50; lambs 7¢; cattle 8¢.

Illinois.

Marion Co., Sept. 25.—Corn is poor; (Continued on page 314).

Now 90 Men Daily Can Buy a Car Like This

Reo the Fifth has for years almost constantly far out-sold our output. Thousands who wanted it were unable to get it. But we have built new factories—three this year. Now we have a capacity of 90 cars daily. From this time on we shall try to supply the men who want better-built cars.

Reo the Fifth is built for men who want the utmost in a car. R. E. Olds designed it. Into every detail he put the best he knew.

It takes six weeks to build it. There are countless tests and inspections. Utter exactness and super-strength are required in every part.

We limited our output to insure this perfection. At times, five men were waiting for every car we built.

35,000 Cars

We have now built with this

chassis 35,000 cars. Now there are 35,000 actual users advising others to buy this car.

To meet this demand we have this year built three immense factory additions. And this year's output is nearly twice last year's. We have practically stopped our advertising, yet we can hardly build cars enough.

Why Men Buy

Reo the Fifth is a car of extremes. It has vast over-capacity. It is built in a costly way. We spend on each car about \$200 more than we need to spend.

The result is endurance, freedom from trouble, low upkeep. The car stays new. Year after year it renders perfect service.

Men want these things in the cars they buy to keep.

Reo the Fifth is constantly kept up-to-date. It shows all the new ideas in body style, in finish and equipment. We have made 18 improvements this year.

And the price today is \$220 less than it used to be. This is due to larger output and to factory efficiency.

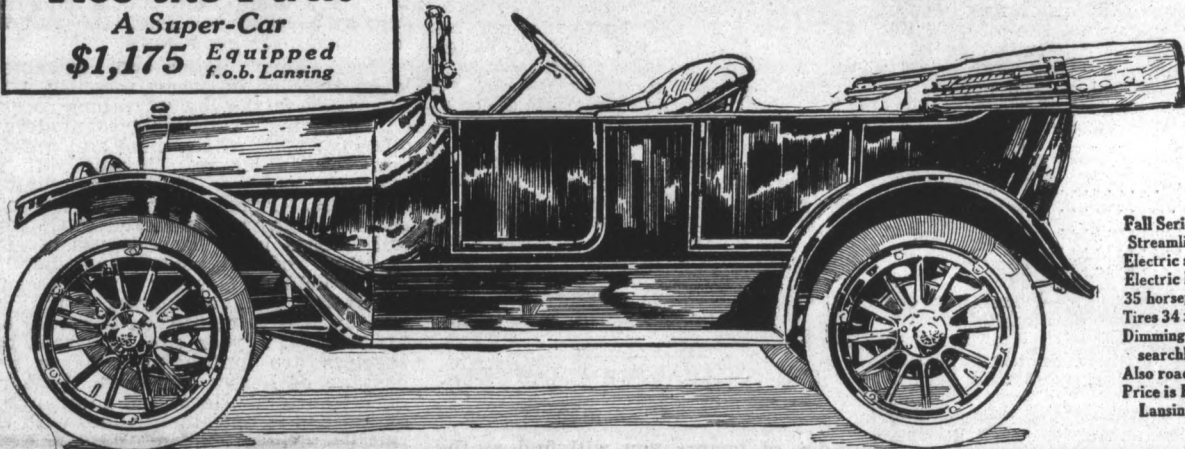
See the latest model. Go into the chassis with your dealer and see where this car excels. The more a man knows of motor cars the more he wants a car like this.

Sold by 1155 dealers. Ask for Reo Magazine, showing how this car is built, and we will tell you where to see it.

REO MOTOR CAR COMPANY, Lansing, Michigan

Canadian Factory, St. Catharines, Ont. Canadian Price, \$1,500

Reo the Fifth
A Super-Car
\$1,175 Equipped
f.o.b. Lansing



Equipment includes mohair top, side curtains and slip cover, clear vision ventilating windshield, speedometer, non-skid treads on rear wheels, electric horn, extra rim, improved tire bracket, complete tool and tire outfit, foot and robe rail, etc.

Fall Series
Streamline body
Electric starter
Electric lights
35 horsepower
Tires 34 x 4
Dimming
searchlights
Also roadster
Price is F. O. B.
Lansing

(281)

1500 HEREFORD CALVES Public Sale TALLULA, ILL. THURSDAY Oct. 15 1914

THESE CALVES are all Z I H brand, raised in the high altitude of Southeastern Colorado, have plenty of bone, vigor, quality and constitution, and are in extra good condition, carrying an abundance of flesh. They will be sorted according to size and sold in car load lots of 50 head, steers and heifers separately. All cattle loaded on the cars free of charge. Sale positive regardless of weather as we have ample facilities. All trains met at Tallula, which is 198 miles Southwest of Chicago on the Kansas City division of the Chicago & Alton, between Bloomington and Roodhouse. Three trains each way daily.

WRITE OR TELEGRAPH IF YOU WANT ANY FURTHER PARTICULARS

C. C. JUDY, TALLULA ILLINOIS

GLASTENBURY HEALTH UNDERWEAR



FOR MEN

Every garment is shaped to the figure, and guaranteed not to shrink.

Glastenbury two-piece flat-knit underwear has a record of over half a century's satisfaction to the consumer.

Affords protection against sudden chills, colds, pneumonia and rheumatism.

Made in fifteen grades, and all weights of fine wools, worsted and merino.

See special feature of adjustable drawer bands on

Natural Gray Wool, winter weight.....	per garment	\$1.50
Natural Gray Wool, winter weight (double thread)....	per garment	1.75
Natural Gray Worsted, light weight.....	per garment	1.50
Natural Gray Australian Lamb's Wool, light weight....	per garment	1.75
Natural Gray Worsted, medium weight.....	per garment	2.00
Natural Gray Australian Lamb's Wool, winter weight....	per garment	2.50

For Sale by Leading Dealers.
Write for booklet—sample cuttings. Yours for the asking.
Dept. 33.

Glastenbury Knitting Company, Glastenbury, Conn.

Farms and Farm Lands For Sale

MICHIGAN FARMING LANDS

Near Saginaw and Bay City, in Gladwin and Midland Counties. Low prices. Easy terms. Clear title. Write for maps and particulars. STAFFIELD BROTHERS, 15 Merrill Building, Saginaw, (W. S.), Michigan.

Central Michigan Farms—Great bargains to offer now in improved farms. Write for list A. BENHAM & TRIM, Hastings, Michigan.

FOR SALE—In whole or part, 320 acre southern Michigan farm. Good soil, buildings and fences. Immediate possession. O. S. SCHAIERER, 214 Dewey Ave., Swissvale, Pa.

DELAWARE FARMS

Fruit, live stock, alfalfa. Best land near best markets. Address, State Board of Agriculture, Dover, Delaware.

Do You Want Alfalfa and big grain crops, here is the farm. 325 acres, 6 large barns, 60 cow stalls, hen houses, silo, running never failing water, 40 acres timber. Large house, two porches, 3 orchards, school, store, church near. Write for particulars. Price \$13,000, part cash. Hall's Farm Agency, Owego, Tioga Co., N. Y.

FOR SALE—120 Acre fruit farm. Clear 100 acres. Buildings, good well, 1200 bearing cherry trees, 1000 apple trees, 25 acres alfalfa. Two miles from city of 3000. A bargain at \$5500. STROEBEL BROS., East Jordan, Michigan.

200 Acre Stock Farm, Three miles E. of South Lyon, Mich. Lyon Mich. Soil, clay loam, double house, three barns, silo, wind mill, all painted. Twenty cows and other stock. Write owner WM. SPRAGUE, 298 Hudson Ave., Detroit, Mich.

FARM FOR SALE—My 80 acre farm in Antrim Co. is for sale on easy terms, 67 acres cleared, good buildings, new silo, rural route and telephone, good soil, good locality. Price \$2500. BERT SIBSON, Elmira, Mich.

100 Acres \$5500

3 Horses, 19 Cows, Crops, Tools.

Completely equipped money-making farm in world famous dairy district; big, sure, immediate income; fine surroundings, only 3 miles to town and R. R. station; cuts 60 tons hay, spring-watered pasture for 25 cows, 30 acres timber, lots of fruit, 300 sugar maples; 2-story 12-room house, running water, big cellar, 40-ft. basement barn, other buildings; owner left alone wants to get away; it taken now includes 3 horses, 19 cows, registered Jersey bull, wagons, machinery, tools, crops; only \$2500 cash, balance easy terms; you won't have to spend another cent; steady income right through the winter; photo of residence, all details, etc., page 3, "Strout's Special Fall Bargain Sheet" just out, copy free. W. A. STROUT FARM AGENCY, Station 101, Union Bank Bldg., Pittsburg, Pa.

Purchase a Southern Farm

Prices range from \$15 an acre up. Nature favors you with big crops, ample rain, mild winters, enjoyable summers. Social, religious, and school privileges the best. Beef, pork, poultry, sheep, and dairying pay handsomely. Large profits in alfalfa, truck, corn, cotton, nuts and apples. Great industrial openings in all parts of the South. "Southern Field," state booklets and all facts free.

M. V. RICHARDS, Land and Industrial Agent, Southern Railway, Room 78, Washington, D. C. Mobile & Ohio, Galveston & Florida.

Markets.

GRAINS AND SEEDS.

October 6, 1914.

Wheat.—Although quotations rule lower than the previous week, a firmer feeling prevailed Monday with a reaction in prices. Although the question as to the continued neutrality of Turkey and Italy in the present European trouble had a bullish influence the chief help came from Australia where a crop shortage is reported. A drouth will reduce the surplus wheat from the island continent several millions of bushels. Estimates also show a shortage of 365,000,000 bushels in this year's wheat crop for the northern hemisphere outside of North America, and Canada will have a crop of 73,000,000 bushels below a normal yield. From this it would seem that the statistical position of the wheat market is favorable to the present range of prices. One year ago No. 2 red wheat was selling at 94c per bu. Quotations are as follows:

	No. 2	No. 1	Dec.
Wednesday	1.06	1.05	1.12
Thursday	1.04	1.03	1.10
Friday	1.06	1.05	1.11
Saturday	1.05½	1.03	1.11½
Monday	1.06	1.03	1.11½
Tuesday	1.06	1.03	1.11

Chicago, (Oct. 6).—December wheat \$1.08½; May \$1.15½.

Corn.—Further declines are noted in this market. Weather has been excellent for maturing the crop. This has overbalanced the influence of an excellent demand. One year ago No. 3 corn was quoted at 73c per bushel. Locally there is very little trading in the grain. Quotations are as follows:

	No. 3	No. 3	Yellow.
Wednesday	75½	77½	77½
Thursday	74½	76½	76½
Friday	73	75	75
Saturday	73	75	75
Monday	74	76	76
Tuesday	73	75	75

Chicago, (Oct. 6).—December corn 75½c; May 70½c per bushel.

Oats.—This cereal declined with wheat and corn. Primary receipts are in only moderate volume. At present it appears that the export demand is a little slower than it has been; however, the cereal is in as strong a position as the other two grains. One year ago 43½c per bushel was the price for standard oats. Quotations are as follows:

	Standard.	No. 3	White.
Wednesday	48½	48	48
Thursday	47½	47	47
Friday	47½	47	47
Saturday	47½	47	47
Monday	47½	47	47
Tuesday	47	46½	46½

Chicago, (Oct. 6).—December oats 48½c; May oats 51½c per bushel.

Rye.—This grain is dull at a price of 91½c for No. 2, which is 2c lower than last week.

Clover Seed.—Prices continue to drop. Prime spot is quoted at \$9.10; December \$9.10; March \$9.55; prime alsike sells for \$9.

Beans.—Market is inactive. There has been a further decline in prices. Detroit quotations are: Immediate and prompt shipment \$2.05; October \$2.05. Chicago.—The market is quiet with prices the same as last week. Pea beans, hand-picked, choice, are quoted at \$2.25 to \$2.60; common at \$2.25 to \$2.40; red kidneys, choice \$3.75 to \$4.25.

FLOUR AND FEEDS.

Flour.—Market is slow, with prices unchanged. Jobbing lots in one-eighth paper sacks are selling on the Detroit market per 196 lbs. as follows: Best patent \$6.20; second \$5.65; straight \$5.35; spring patent \$6.50; rye flour \$5.80 per bbl.

Feed.—In 100-lb. sacks, jobbing lots are: Bran \$25; standard middlings \$25; fine middlings \$32; coarse corn meal \$33; corn and oat chop \$29 per ton.

Hay.—Carlots on track at Detroit are: New, No. 1 timothy \$16 to \$16.50; standard \$15 to \$15.50; No. 2, \$14 to \$14.50. Chicago.—Steady. Choice timothy quoted at \$17 to \$17.50 per ton; No. 1, \$15.50 to \$16.50; No. 2, \$14 to \$14.50.

New York.—Unchanged. Prime new timothy \$21 to \$21.50; fancy light clover, mixed \$19.50 to \$20 per ton.

Straw.—Steady. Rye \$7.50 to \$8; oat straw \$7 to \$7.50; wheat straw \$7 to \$7.50 per ton.

DAIRY AND POULTRY PRODUCTS.

Butter.—Market steady. Prices on dairy and packing stock lower. Extra creamery 29c per lb; firsts 27c; dairy 19c; packing stock 18c.

Chicago.—Market is firmer at unchanged prices. Demand continues

very moderate. Extra creamery 29c; extra firsts 28 to 28½c; firsts 26 to 27c; seconds 24 to 24½c; packing stock 20½c.

Elgin.—No sales made but 29c was bid. Market shows a firmer tone than last week.

New York.—The market is gaining tone. Not much change in prices. Creamery extras 30c; special mark 30½ to 31c; firsts 27 to 29c; seconds 24½ to 26½c.

Eggs.—Market is firm with a light supply. Prices ½c lower. Fresh stock sells at 23c per dozen; current receipts 21½c.

Chicago.—Market steady for fresh and refrigerator stock. Prices slightly higher. Miscellaneous lots, cases included 19 to 22c; ordinary firsts 20 to 21c; firsts 21½ to 22½c.

Poultry.—Market easy, with plentiful supply. Springs 15c; hens 15c; ducks 13 to 14c; young ducks 15 to 16c; geese 11 to 12c; turkeys 16 to 17c.

Chicago.—Market is slow. Receipts large and buyers indifferent. Little change in prices. Quotations on live: Fowls 13 to 14c; spring chickens 13c; ducks, good stock 14c; guinea hens, per dozen \$3.50; young guinea hens \$2 to 4; turkeys 16c; geese 11 to 12c.

FRUITS AND VEGETABLES.

Fruits.—Pears, Bartletts, \$1.50 1.75 per bu; common 75c; plums \$1.25 to \$1.50 per bu; grapes 15c for blue, per 8-lb. basket; peaches, Elbertas, choice \$1.75; A, \$1.50; B, 90c to \$1 per bushel.

Chicago.—Michigan peaches 50c to \$1.25 per bushel; Bartlett pears \$1.50 to \$5 per bbl; grapes 12 to 13c per 8-lb. basket; Hyslop crab apples \$3 bbl.

Vegetables.—Home-grown cabbage, \$1.25 per bbl; new beets 65c per bu; radishes \$1 to \$1.25 per hundred bunches; green corn 75 to 80c per sack.

Potatoes.—Michigan \$1.50 to \$1.60 per sack; bulk 50c per bu; at Chicago, Michigan white, sacked are quoted at 53c.

Apples.—Supply is liberal and demand is fair. Average receipts 35 to 50c per bu; \$1.25 to \$2 per bbl.

Chicago.—Liberal supply of both bulk and barrel stock. Demand fairly active. Wealthy \$2 to \$2.50; Kings \$2.25 to \$2.75; Maiden Blush \$1.75 to \$2.50; Wagener's \$2 to \$2.25; Jonathans \$3.50 to \$4; Greenings \$2 to \$2.25; bulk apples \$75 to \$250 per car.

DETROIT EASTERN MARKET.

There were not as many teams on the market Tuesday morning as usual, with the result that products moved a little more freely. Tomatoes are still offered liberally, and quoted at 50c. Potatoes are down to 60c; cauliflower 50c; cabbage 25c; apples are moving a little better, with prices ranging from 50c to \$1.25 per bushel. Pears 75c to \$1.25; celery 25c per large bunch; head lettuce 50c per bushel. Loose hay continues firm at \$17 to \$19 per ton.

THE LIVE STOCK MARKETS.

Buffalo.

October 5, 1914.

(Special Report of Dunning & Stevens, New York Central Stock Yards, Buffalo, N. Y.)

Cattle.—Receipts 4,000; market 10c higher; prime steers \$9.50 to \$10.25; shipping steers \$8.50 to \$9.50; butchers \$7.50 to \$8.50; heifers \$6 to \$8; fat cows \$4.50 to \$7.15; bulls \$6.25 to \$7.50; canners and cutters \$3.50 to \$4.75.

Hogs.—Receipts 15,000; steady; heavy \$9 to \$9.10; yorkers \$9.10 to \$9.15; pigs \$8.75 to \$9.

Sheep.—Receipts 7,000; steady; top lambs \$8 to \$8.15; yearlings \$6.25 to \$6.75; wethers \$5.75 to \$6; ewes \$7.25 to \$7.50; calves \$5 to \$12.

Chicago.

October 5, 1914.

Cattle. Hogs. Sheep. Receipts today...18,000 26,000 55,000 Same day 1913...16,596 45,812 43,830 Last week...50,573 88,692 195,114 Same wk 1913...56,627 150,838 153,970

Probably the cattle market was saved today from a further break in prices by the moderate offerings, which included 5,000 western rangers, for trade requirements were not large after last week's generous supplies. Other markets got large receipts, Kansas City receiving 31,000 head. In the Chicago market demand ran mainly on fat natives and good rangers, and native grassers sold slowly. Hogs declined about a dime, selling at \$7.50 to \$8.80. Hogs marketed last week averaged 235 lbs., comparing with 239 lbs. a week earlier and 248 lbs. a month ago. The big run of sheep and lambs was largely made up of flocks from the ranges, and they were largely feeders. Demand for fat lambs and sheep was very good at about steady prices, and feeders sold briskly at steady to a little lower prices, while mutton lambs that were off in quality were apt to show weakness.

Cattle had to be extremely good in quality to sell well last week, for aside from fat beefs, the market

was in bad shape, with increasing receipts at a time when only limited numbers were required. Even steers selling as high as \$10 to \$10.50 shared in the breaks, and the greater part of the offerings declined 25 to 35c, with a fall of 15 to 25c in females. A good share of the steers crossed the scales at \$8.50 to \$10.50, but sales at high values were largely made on Monday, when quite a number of sales occurred at \$10.60 to \$11, with top at \$11.05. Steers selling at \$10.50 and upward were prime, but numerous steers that passed for good sold at \$9.75 or thereabouts, while coarse heavy steers went around \$9. The poorer light-weight grassy steers brought \$6.35 to \$7.75, and medium grade cattle sold at \$8.75 to \$9.70, while yearlings brought \$9.50 to \$11 when desirable, with sales all the way down to \$7.75 to \$8 for ordinary lots. Chicago and other western markets have been getting large supplies of grass cattle, both natives and rangers, and until these runs are over depressed markets may be expected. Butchering cows and heifers have been selling at \$5 to \$9.40 for ordinary to prime kinds, with cutters selling at \$4.50 to \$4.95, canners at \$3.40 to \$4.45 and bulls at \$4.50 to \$8. Stockers and feeders have weakened, and the bulk sold irregularly lower, the tight money market preventing quite a number of intending buyers from purchasing. Stockers sold at \$5 to \$7.75, feeders at \$6 to \$8.40, stock and feeding cows and heifers at \$5 to \$7 and stock steer calves at \$6.50 to \$8.25. Calves were lower than a short time ago, with a slower trade, sales ranging at \$4.50 to \$9 for the common to choice heavy weights and at \$10 to \$11.25 for light vealers. Milkers and springers had a moderate sale at \$60 to \$95 per head, the call being mostly for good cows.

Hogs have undergone extremely large declines in prices recently, with late sales at the lowest values recorded since last July, despite moderate offerings most of the time and greatly lessened numbers slaughtered by western packing this season than a year ago. Furthermore, the accumulations of provisions stored in Chicago warehouses have been decreasing, the monthly official statement showing stocks held on October 1 to aggregate 77,484,302 lbs., comparing with 86,254,652 lbs. a month earlier and 88,825,291 lbs. a year ago. Current hog receipts are embracing a large percentage of heavy old sows, these going at bottom prices, and the range of quotations is extremely wide, with the small offerings of prime light barrows going highest of all. The latter are wanted by eastern shippers, who also buy moderate numbers of good hogs of heavier size, but the eastern shipping movement has been rather limited for some time past. In recent weeks the Chicago receipts of hogs have averaged from 239 to 247 lbs., whereas a year ago they averaged but 214 lbs. The average was 233 lbs. two years ago, 219 lbs. three years ago and 260 lbs. four years ago. Packers are bearish on hogs and it is an interesting question whether country owners will ship their hogs or hold for better prices, particularly as the country's supply is short. The packers are banking on the good pig crop and absence of sickness. After the best hogs had dropped to \$8.80 the market rallied and closed Saturday at \$7.65 to \$9 for coarse heavy packers to prime light shippers, with pigs at \$5 to \$8.60. Western packing since March 1 has aggregated 12,422,000 hogs, or 1,922,000 less than a year ago.

Sheep and lambs have had declines and advances recently, the changes in quotations depending on the volume of the receipts. As the season advances liberal supplies from the ranges swell the receipts a good deal, particularly on Monday, and on that day last week sheep and lamb receipts aggregated 54,853 head, causing a quick decline in values. As receipts consist largely of lambs, they usually show much greater quotable changes than sheep. Feeding lambs are all the time in active demand and sell relatively higher than matured fat flocks, with too few to go around. Lambs have sold higher than a year ago and sheep much higher. At the

weeks close lambs sold at \$6 to \$7.80, feeder lambs at \$6.50 to \$7.25, yearlings at \$5.50 to \$6.25, wethers at \$5 to \$5.75, ewes at \$3 to \$4.85 and bucks at \$3.50 to \$4. A few weeks ago prime lambs brought \$9.

CROP AND MARKET NOTES.

(Continued from page 313).

most of it has gone into silos. Potatoes, onions, beans, clover seed and apples were a failure here. A large acreage of wheat was sown. Not much live stock on the farms. Wheat \$1; other grains have to be shipped in. Hogs 8½c; cattle 5 to 6c; winter apples 75c per bushel; eggs 24c; butter 25c; cream 30c; peaches \$1. Consumers are paying \$1 to \$1.20 for potatoes.

Wisconsin.

Waushara Co., Sept. 25.—Weather good; late potatoes are promising; clover seed will be a good crop; apples are scarce. Cheese market is dull. Eggs 20c; wheat \$1; rye 83c; butter 33c.

Polk Co., Sept. 29.—Small acreage of wheat and rye sown. Silos are filled; corn is cut and an excellent crop. Clover seed not promising. But little fall plowing will be done. Cattle 4½ to 7½c; hogs 8c; barley 50c; oats 40c; wheat \$1.10; potatoes 35c; butter 35c; eggs 25c.

Kansas.

Franklin Co., Sept. 21.—Silos are filled, and corn cutting finished. Corn of poor quality, and will yield about 10 bushels per acre. Potatoes half a crop. Onions and beans are fair. Clover seed is very short. Apples are scarce. Acreage of wheat sown will be large. Live stock is scarce. Wheat 94c; corn 80c; eggs 20c; cream 23c.

HELPING YOU GET STARTED.

To assist you in getting a direct market we will mail you a steel-crated shipping crate 8½x12½x14 ins., containing four dozen egg cartons, a 2-lb. butter tub, a pint cream bottle, partitions, paraffined paper and shipping tags, all for 50c, or with the Michigan Farmer one year for 80c, to which prices add 8c for parcel postage in the first and second zones, 12c in third, and 19c in fourth zone from Detroit. We will also print your name in a list to be distributed among city consumers. Send orders to the Michigan Farmer, Detroit, giving the products you have for sale.

\$5 FUR COURSE FREE

Learn how to catch and raise furs. Great sport. Big fortunes in live animals. Your idle time may make you rich. Live animals bring big prices compared to what you get for pelts. Catch 'em alive. Make more money. Raise and breed small animals in your back yard. Look at the prices you can get now—and the prices are advancing. Live mink bring from \$40 to \$100 a pair. Red cross or patch foxes from \$200 to \$600 a pair. Black foxes from \$1000 to \$5000, even more. Black skunk from \$40 to \$60 a pair. Muskrat from \$5 to \$7 a pair. Marten and Fisher from \$200 to \$300 a pair. Other animals also bring big prices. Our course tells how to catch live animals and raise furs successfully. How to make skunk odorless. How to trap and handle skunk without getting scented. How to catch and raise other animals, such as mink, fox, coon, muskrat, etc. The complete course consists of five profusely illustrated books, regular price \$1 per book or \$5 for the full course.

OUR SPECIAL OFFER

Send us five names of people who hunt or trap, and only \$1 and we will send you our Directory of Live Animal Buyers and Dealers. Tells where you can sell live animals for big money faster than you can catch or raise them. Gives several hundred names and addresses of firms who buy live animals and pay big prices for them. With the Directory, we will send you, absolutely free, our \$5 course in trapping, breeding, and raising fur-bearing animals. \$1 brings you the Directory and complete \$5 course, prepaid. Make big money this fall, catching, breeding, or selling live animals. If you hunt or trap, you cannot afford to be without this course. The lessons in trapping live animals alone will be worth hundreds of dollars to you. Learn new methods of trapping. More effective than steel traps. Sure and positive. Get the only practical course on trapping, raising, and selling live animals ever published. You get the complete \$5 course, five books and Directory, all for \$1. Satisfaction guaranteed or your money refunded. Send for the Directory now. Only limited number of courses given away. Send \$1 while this offer holds good. You get the \$5 course free with the directory. Send today.

AMERICAN ZOOLOGICAL GARDENS
22 West Quincy St., Dept. 118, Chicago, Ill.

A Ford Auto or \$500, Which

Either one can be earned by one man in each community by representing us through the fall and winter months. Must be well known farmer or man with a large acquaintance among farmers. No investment or experience required. For particulars address

Wilmont C. PEARSE, Grand Rapids, Mich.

The Little Wonder Tile Ditcher.

I claim to be the inventor of the only successful horse power Tile Ditching Machine now on the market.

There are hundreds of farmers that will read this ad. whom I have met and am personally acquainted with, for I have traveled over 22 states and Canada successfully demonstrating those machines. Now I wish to say to you that the accompanying cut, The Little Wonder Tile Ditcher, my latest invention, now ready for market, is the superior of all my previous inventions. With it I guarantee one man and 4 horses can cut from 3 to 5 hundred rods of tile ditch in one day.

It will cost you but one cent for postal to find out all about this wonderful invention.

ED. JESCHKE,
319 High St., Bellevue, Ohio



Buy At Wholesale Direct From Our Factory GUARANTEED STEEL ROOFING

Our exclusive process gives every sheet an extra heavy galvanized coating. Each sheet is made extra durable to give extra long service.

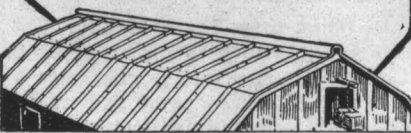
WE GUARANTEE every sheet to be first quality open hearth roofing steel, full weight, free from flaws and brand new—or it doesn't cost you a cent. Our Guarantee insures you of getting the highest possible quality of galvanized steel roofing. Could any Guarantee be fairer?

We manufacture all our roofing, and sell direct to the consumer. We actually sell you high quality roofing for the same or less money than you have to pay your dealer for inferior quality. We save you big money in buying, and

We Pay the Freight

Send for Free Samples of galvanized steel, complete Roofing Book, and freight-paid prices.

The Ohio Galvanizing & Mfg. Co.
41 Ann St., Niles, Ohio



MICHIGAN DAY

Oct. 26th

INDIANA DAY

Oct. 27th

OHIO DAY

Oct. 28th

National Dairy Show Chicago

Oct. 22d to Oct. 31st

Ten Days of more real value to the Dairy Farmer, Breeder, Creamery Man or any other man interested in Dairying, than any other days of the year.

FARM TELEPHONES



Every rural Telephone company should write for our 190-page book, **BUILDING THE LINE**

It contains real telephone information, illustrations, diagrams and plain A. B. C. Telephone talk. We are rural Telephone specialists and want to submit our offer to you. Write today and tell us your telephone conditions; get our prices on everything needed.

Good Agents Wanted.

The Garford Mfg. Co.
Elyria, Ohio, Rural Dept. C.

High Calcium Finely Pulverized Limestone

Sweetens sour soil. Without Limestone you cannot grow Alfalfa. Necessary for Clover, also other crops. Quick shipments in closed cars. Quality guaranteed. We will be pleased to send price and sample.

NORTHERN LIME COMPANY
Petoskey, Mich.



The "BEST" LIGHT

Reading, study or work is a pleasure when done under the soft, brilliant rays of the "Best" Light. No other illumination so effective or cheap. Costs only 2c a week. No smoke, dirt nor odor. Over 200 styles. Write for catalog. Agents wanted everywhere.

THE BEST LIGHT CO.
280 E. 5th St., Canton, O.

Do You Want a Farm?

We have one of the largest lists in Michigan, 5 acres up, all locations. Some very good stock, grain and dairy farms. Write us what you want, we have it. R. O'BERTS & McLEAN, 210 Moffat Bldg., Detroit, Mich.

THIS IS THE FIRST EDITION.

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

DETROIT LIVE STOCK MARKETS.

Thursday's Market.
October 1, 1914.
Cattle.

Receipts 1507. Market steady with Wednesday; canners strong, all other grades dull and 25c lower than last week; quality common.

Best heavy steers (quotable) \$8.50; best handy weight butcher steers \$7.25 @ 8; mixed steers and heifers \$7 @ 7.25; handy light butchers \$6.50 @ 7.25; light butchers \$6.50 @ 6.75; best cows \$6 @ 6.50; butcher cows \$5.25 @ 5.75; common cows \$4.50 @ 5; canners \$3.50 @ 4.50; best heavy bulls \$6 @ 6.50; bologna bulls \$5.50 @ 5.75; stock bulls \$5 @ 5.50; feeders \$6.50 @ 7.25; stockers \$5.50 @ 6.50; milkers and springers \$40 @ 90.

Spicer & R. sold Mich. B. Co. 1 cow wgh 1200 at \$6.25, 1 do wgh 980 at \$5, 1 do wgh 730 at \$6.50; to Parker, W. & Co. 1 do wgh 930 at \$4.50; to Breitenbeck 5 do av 932 at \$5.25; to Reardon 28 feeders av 825 at \$7; to Sullivan P. Co. 1 steer wgh 1180 at \$7.75, 5 cows av 1030 at \$5, 2 canners av 845 at \$4.50; to Hirschleman 1 bull wgh 610 at \$5.50, 1 do wgh 740 at \$6, 1 do wgh 1230 at \$6.75, 2 steers av 855 at \$7.25; to Findlay 18 stockers av 638 at \$6.25; to Parker, W. & Co. 2 cows av 810 at \$4; to Hammond, S. & Co. 3 bulls av 970 at \$5.75, 2 do av 1125 at \$6; to Newton B. Co. 29 butchers av 843 at \$6.50; to Lachalt 7 do av 760 at \$6.75; to Rosier Bros. 38 stockers av 600 at \$6.25.

Roe Com. Co. sold Sutton 4 stockers av 617 at \$6.75; to Kamman B. Co. 5 butchers av 660 at \$6.25; to Newton B. Co. 3 do av 587 at \$5.25, 3 cows av 957 at \$5.25, 4 heifers av 645 at \$6, 3 cows av 940 at \$6, 7 butchers av 768 at \$6.50; to Sullivan P. Co. 3 do av 690 at \$5.25, 8 cows av 955 at \$5.25; to Watts 11 stockers av 535 at \$6, 1 feeder wgh 780 at \$6.75, 3 stockers av 503 at \$6, 4 do av 600 at \$6; to Heinrich 11 steers av 760 at \$7.25; to Mich. B. Co. 3 cows av 966 at \$5.75, 2 steers av 1025 at \$7.75; to Parker, W. & Co. 4 cows av 892 at \$4.75, 5 do av 856 at \$4.50; to Sandall 1 steer wgh 500 at \$5.75, 2 do av 630 at \$6; to Hammond, S. & Co. 4 cows av 950 at \$4.50; to Goose 6 do av 916 at \$5.25.

Veal Calves.

Receipts 509. Market steady. Best \$11 @ 12; others \$7 @ 9.50.

Spicer & R. sold Mich. B. Co. 1 wgh 150 at \$11, 22 av 160 at \$11; to Newton B. Co. 5 av 125 at \$10.50; to Mich. B. Co. 2 av 190 at \$11.50, 10 av 166 at \$11.25.

Sheep and Lambs.

Receipts 5681. Market 15 @ 20c lower than Wednesday. Best lambs \$7.35 @ 7.50; fair lambs \$7 @ 7.25; light to common lambs \$6.50 @ 7.75; fair to good sheep \$4.50 @ 4.75; culls and common \$3.50 @ 4.

Spicer & R. sold Mich. B. Co. 30 lambs av 52 at \$4, 62 do av 48 at \$6.50, 119 do av 67 at \$7.60, 22 sheep av 70 at \$5, 11 lambs av 85 at \$7.50.

Haley & M. sold Thompson Bros. 8 lambs av 50 at \$7, 51 do av 75 at \$7.75; to Newton B. Co. 126 do av 75 at \$7.60; to Thompson Bros. 7 do av 77 at \$7.75, 25 do av 83 at \$6, 12 do av 75 at \$7.75; to Newton B. Co. 31 sheep av 85 at \$3.50.

Hogs.

Receipts 4257. Market very dull; nothing doing up to noon; prospects \$3.40 @ 8.50.

Bishop, B. & H. sold Parker, W. & Co. 1100 av 200 at \$8.60, 810 av 155 at \$8.50.

Roe Com. Co. sold Sullivan P. Co. 225 av 190 at \$8.60.

Friday's Market.

October 2, 1914.
Cattle.

Receipts this week 1657; last week 1956; market steady.

We quote: Best heavy steers (quotable) \$8.50; best handy weight butcher steers \$7.75 @ 8.65; mixed steers and heifers \$6.75 @ 7.50; handy light butchers \$6.50 @ 7.25; best cows \$6.25 @ 6.50; butcher cows \$5.25 @ 6; common cows \$4.50 @ 5; canners \$3 @ 4.25; best heavy bulls \$6.50 @ 6.75; bologna bulls \$5.50 @ 6; stock bulls \$4.50 @ 5.50; feeders \$6.75 @ 7.25; stockers \$5.50 @ 6.75; milkers and springers \$40 @ 90.

Veal Calves.

Receipts this week 558; last week 438; market steady. Best \$11 @ 11.75; others \$7 @ 9.50.

Sheep and Lambs.

6705; market steady. Best lambs \$7.50; fair do \$7 @ 7.25; light to common do \$6.50 @ 6.75; fair to good sheep \$4.50 @ 5; culls and common \$3.50 @ 4.

Receipts this week 5264; last 6056; market steady; all grades \$8.60.

All Trace of Hog Worms Disappeared After Feeding Merry War Powdered Lye

"I have used MERRY WAR POWDERED LYE according to directions and will say that the results obtained were far beyond expectations. Just before we commenced feeding MERRY WAR POWDERED LYE we killed some hogs and found they were badly infested with intestinal worms. After feeding your preparation only twenty days we killed some more out of the same feed lot, and all trace of worms had disappeared. My herd of swine is now in far better condition than it ever was."

(Original letter on file in our office. Name and address will be furnished upon application to us. E. Myers Lye Co.)

Merry War POWDERED Lye

Costs Only 5c per Hog, per Month,
To Feed Regularly, Twice Each Day
A 10c Can of Merry War POWDERED Lye
Contains 120 Feeds—

enough to keep a hog well conditioned for 2 months. For sale at most druggists, grocers and feed dealers. It is convenient to buy in case lots, 4 dozen cans, \$4.80, at which price we will ship it to you direct, prepaid, if your dealers won't supply you. When ordering send us your dealers' names.

Don't Take Chances

Putting Anything Claimed To Be

"Just As Good" In Your Hogs' Stomachs
Don't make doubtful and perhaps dangerous experiments with "any old lye". Merry War POWDERED Lye has been proven—its use is not an experiment—it is safe to use according to simple directions.

Let us send you free our valuable booklet "How to Get the Biggest Profits from Hog Raising".

E. MYERS LYE CO., St. Louis, Mo., Dept. 178

"There Are No Substitutes"



SAVE- THE- HORSE

Trade-Mark Registered

H. L. Miles, Dealer in Plaster, Cement, etc., Delta, Ohio, writes: "Enclosed check for bottle Save-The-Horse. My sons ordered a bottle a few years ago and cured two spavins."

A Bad Splint. W. J. Parks, Lake Linden, Mich., writes: "My horse had a large splint close to knee, pronounced incurable by two V. S. The horse went sound after three weeks' treatment with Save-The-Horse, is driven daily; now over several months and there is no lameness."

We Originated the treatment of horses—Under Signed Contract to Return Money if Remedy Fails on Ringbone—Thoropin—SPAVIN and ALL—Shoulder, Knee, Ankle, Hoof and Tendon Disease. BUT WRITE and we will send our BOOK—Sample Contract and ADVICE—ALL FREE to (Horse Owners and Managers—Only). Address TROY CHEMICAL CO., 20 Commerce Ave., Binghamton, N. Y.

Druggists everywhere sell Save-The-Horse WITH CONTRACT, or we send by Parcel Post or Express paid.

ARMY AUCTION BARGAINS

Saddles \$3.00 up Army Revolvers \$1.65 up
Bridles .90 " " B-L Rifles93
Team Harness 21.85 " " Swords35
Leggings, pair .15 " " 7 Shot Carbine 3.50
Tents2.85 " New Uniforms . 1.50
Colts Cal. 45 Revolver \$7.45. Cigs. 1 each. 15
Acres Government Auction Bargains illustrated
and described in 420 large page wholesale and
retail cyclopedia catalogue, mailed 25 cents
East and 30 cents West of the Mississippi River.
Francis Bannerman, 501 Broadway, New York

Try It 30 Days

at Our Risk
Buckeye

FEEDING MOLASSES

W. H.
EDGAR & SON,
1042 Lafayette
Blvd., Detroit, Mich.

I have.....head of
cattle.....sheep.....hogs

and.....horses. Send me
your trial proposition to prove that
Buckeye Feeding Molasses will benefit
all of them.

Name.....E. F. D....

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

Mail this
Coupon
Today

PULL OUT THE STUMPS!

The HERCULES

All Steel Triple Power Stump
Puller pulls an acre of stumps a day
—increases the value of your
land 100%. Makes room for
money crops. Guaranteed
for 3 years against break-
age from any cause. Send
name for fine free
book, 30 days free
trial offer and
special low-price
proposition.
HERCULES MFG. CO.
937 23rd St.
Centerville, Ia., U.S.A.

Feed Molasses

Cuts cost of feeding. Write quick for prices.
PITTSBURGH MOLASSES CO., Dept. MF, 706 Penn Ave.,
PITTSBURGH, PA.

LIVE
POULTRY,
BROILERS,
FRUITS,
POTATOES,
ONIONS,
ETC.

Let us handle your
poultry, fruits, farm pro-
ducts. Our 25 years in
the same store assures
your satisfactory results.
CHAS. W. RUDD & SON,
Detroit, Michigan.

HAY

Ship your Hay to Pittsburgh and to
Daniel McCaffrey Sons Company
Pittsburgh, Pa.

Ref.—any bank or Mercantile Agency.

Griggs, Fuller & Co., Wholesale Commission House,
Pittsburgh, Pa. Want your apples,
potatoes, poultry and rabbits. Quick returns.

HAY We pay highest market price for
our lots. E. L. Richmond Co., Detroit.

FARMERS—We are paying good premium above
the Official Detroit Market for new-
laid eggs shipped direct to us by express. Write us
for information. It will pay you. American Butter
& Cheese Co. 31-33 Griswold St., Detroit, Mich.

APPLES AND POTATOES MAKE YOUR
SHIPMENTS TO
E. L. RICHMOND CO., Detroit, Mich.

ALFALFA HAY FOR SALE. \$18 per ton,
f.o.b. Cars at Wayland.
E. A. SMITH, Wayland, Michigan.

FOR SALE—Registered weanling Stallion
Colts from our best Percheron
Mares. Write. R. S. HUDSON, Michigan, Agri-
cultural College, E. Lansing, Michigan.

Registered Percherons,
BLOOD MARES, FILLIES AND YOUNG
STALLIONS at prices that will surprise you
L. C. HUNT & CO., Eaton Rapids, Michigan.

BELGIAN
STALLIONS One 36 months 1800. One 14
months 1200. Big Bone; at
Farmers Prices. FRANK
RUSSELL, Fulton, Mich.

Pigeon Pony Farm—Reg. Shetland Ponies, mostly
spots, 1 spotted stallion and young
stock for sale. Dr. W. T. Morrison, Pigeon, Mich.

41 - Head of Holsteins - 41

At Public Sale at the Residence of
F. W. Savage, Belleville, Michigan.

October 13, 1914.

Consignors to sale are: H. S. Day, Willis; N. L. Rogers, Belleville;
F. W. Savage, Belleville; J. S. Childs, Willis; I. H. Riggs, Belleville;
J. F. Miles, Belleville.

The stock consigned includes 30 cows and heifers and 11 bulls from 14
months old down to calves. Ten cows are either fresh or will be soon;
four 2-year-olds are coming in; the balance yearlings and heifer calves.
These cows are daughters of such bulls as Sir Butterfly De Kol 37557,
Briar Mercedes Butter Boy 55756, Woodcrest De Kol Lad 45103 and the
cows and heifers are with calf by such bulls as Elzevere King of Butter
Kings 71595 and Stony Brook Pontiac Pietertje 71636.

Sale will commence at 10 A. M. Auctioneer, Col. Charles Thompson.
Clerk, Stephen Pearl. Manager, S. T. Wood.

F. W. SAVAGE, - - Belleville, Michigan.

WINCHESTER



W "LEADER" AND "REPEATER"

SMOKELESS POWDER SHELLS

No matter whether your favorite sport is field, wild fowl or trap shooting, Winchester loaded shells will give you the fullest measure of shooting satisfaction. No shells will make a good shot out of a poor one, but shells that are loaded so that they are uniform in velocity, spread the shot evenly, and give good penetration help wonderfully to make good bags in field or marsh and high scores at the traps. Winchester shells embody all these important elements.

BE SURE AND GET THE W BRAND

CUSTOM TANNING

We are prepared to do all kinds of Fur Tanning. Cattle or Horsehides, calf, dog, deer or any kind of wild or domestic animals; dye and finish them. We can make them into Coats, Robes, or Rugs, if desired furnishing all trimmings and linings. We solicit your business and are well equipped to do a good job. Brown & Seher Co., Grand Rapids, Mich.

White and Brown Ferrets for Sale Prices free. Will drive rats, rabbits, minks, and all small animals out of holes. Burt Ewell, Wellington, O.

POULTRY.

HERE'S YOUR OPPORTUNITY Fawn and white runner ducks and drakes or pure white runner drakes, best in U. S. **BIVERVIEW FARM, R. No. 8, Vassar, Mich.**

PINE CREST WHITE ORPINGTONS 3 and 4 months old, pullets and cockerels, few yearling hens. Get a start, now. Mrs. Willis Hough Pine Crest Farm, Royal Oak, Mich.

PLYMOUTH Rock cockerels 5 to 11 lbs., according to age, hens 5 to 8 lbs., 15 eggs \$1. Mammoth Bronze Tom Turkeys 8 to 35 lbs., according to age. Price \$8 to \$25, 10 eggs \$3. A. E. CHAMTON, Vassar, Mich.

WHITE WYANDOTTES FROM 272 EGG STRAIN. CLARE SHUMAN, Route 21, Sparta, Michigan.

Buff Orpington Cockerels—Fine stock, fine birds REV. O. N. BELDIN, Marlette, Michigan.

S. L. WYANDOTTE EGGS—From great laying strain of Blue Ribbon Birds. Satisfaction guaranteed. F. E. Cowdrey, Ithaca, Mich.

LILLIE FARNESTEAD POULTRY B. P. Rocks, R. I. Reds, and S. O. W. Leghorn eggs for sale. 15 for \$1.36 for \$1.50; 50 for \$2.50. COLON C. LILLIE, Coopersville, Mich.

SILVER, White and Golden Wyandottes. Eggs from Whites \$1.50 per 15, \$2.50 per 30. Silvers & Golden at catalog prices. Browning's Wyandotte Farm, Portland, Michigan.

Barred Rocks—All prize winners and breeding stock for sale. 15 for \$1.36 for \$1.50; 50 for \$2.50. W. O. COFFMAN, R. No. 6, Benton Harbor, Mich.

DOGS.

FOX, COON AND RABBIT HOUNDS Broke to gun and field. Prices right. Fox and Coon hound pups \$5 each. Stamp for reply. H. C. LYTLE, Fredericksburg, Ohio.

Trained Running Fox Hounds—30 Fox and Coon hound pups, 500 Ferrets, Puppies. Send stamp. W. E. LECKY, Holmesville, Ohio.

Fox and Wolf Hounds

of the best English strain in America 40 years experience in breeding these fine hounds for my own sport. Save your pigs sheep and poultry. Send stamp for catalog. **T. B. HUDSPETH,** Sibley, Jackson County, Mo.



DON'T PAY TWO PRICES

HOOSIER Stoves Ranges Heaters FREE

To try in your own home for 30 days. Show your friends. Freight paid by us. Send it back at our expense if you do not want to keep it. You can buy the best at Actual Factory Prices. Are heavily made, of the highest grade selected material, beautifully finished, with improvements that absolutely surpass anything ever produced. The Best in the World. Guaranteed for years by a Two Million Dollar Bond. No matter where you live, you can try a HOOSIER in your own home thirty days, without a penny's expense or obligation to you. You can save enough on a single HOOSIER STOVE to buy your winter's fuel. Write or send postal today for Large Free Catalog and prices, showing large assortment to select from. No Obligations.

HOOSIER STOVE COMPANY, 131 State Street, - MARION, IND.

A Wet Day?

Go out on the job wearing



REFLEX SLICKER

Work in it all day; it's made big all over for comfort, strong enough to stand the strain of hard service, and waterproof through and through. Note this big feature: water cannot run in where the fronts overlap and button. Our patented Reflex Edges stop every drop.

\$3.00 Everywhere Satisfaction Guaranteed Catalog free

A. J. TOWER CO., Boston

AMERICAN STEEL POST FENCE

Made by American Steel & Wire Company High-class steel, heavily coated with zinc. Strong enough to hold up any wire fence and furnish all necessary resistance. End and corner posts so strong that they will maintain any wire fence made.

Cheaper than Wood and More Durable Adapted to all conditions and absolutely satisfactory, no matter how heavy the fence nor how hard the usage after the fence is erected. Give better service than wood post, and you get the benefit of every post in the fence from year to year, while wood posts burn, rot and decay from the start. Have been in service since 1898, in every section of the United States, and the oldest posts now as good as when set. Adapted to all fences. Increases the life of a fence. A wire fence on wooden posts is like building a brick house on a wood foundation. For sale by dealers everywhere. Big picture catalog FREE. American Steel & Wire Co., Chicago, New York 41052



BOOK ON Dog Diseases AND HOW TO FEED

Mailed Free to any address by the author **H. CLAY GLOVER, V. S.** 118 West 31st Street New York

Poultry and Bees.

Developing the Young Pullets.

THE scarcity of fresh-laid eggs on and early winter months is usually the result of improper methods of feeding and developing the young pullets. The fact that a few of the most vigorous pullets begin to lay indicates that many more of them might be laying if the right methods of feeding and developing them were adopted. It is true that late hatches are the rule, rather than the exception on the average farm, but it is equally true that neglect, indifference and poor feeding are another prominent cause.

On the average farm little interest is taken in the spring chickens after they have made a fair start in life; the other farm work demands so much attention that the chickens are left to rustle for themselves. Young chicks grow very rapidly, the coops soon get overcrowded and filthy and they are fed scantily and irregularly.

On many farms the chickens and old hens are shut up in a foul smelling yard and at night they are compelled to roost on a filthy floor, many times under the hens, or in the nests. Subjected to such treatment they fall easy victims to disease and vermin which they have contracted from the older fowls. At best they are nothing more than bundles of skin, bones and feathers at the time when they should begin to show reddening combs and be looking for a secluded place in which to make a nest.

Proper Care Pays.

If given proper care and liberal rations of bone and muscle building foods the pullets will reach laying maturity at from six to seven months old, that is, if they are hatched early enough so that they will reach such development before cold weather sets in. If they do not reach this maturity before cold weather comes it is almost impossible to induce them to start laying before the approach of spring. The ideal pullet for winter laying is one that reaches the desired maturity by the first week in November, and then by good care and food is kept laying through the winter.

The pullets that show indications of laying ability and early development should be separated from the cockerels and other members of the flock and given a chance to grow and develop. They should have the run of a large yard, or better still, the range of the whole farm, so that they may gather insects and green food. Then if they have an abundant supply of pure water, grit and oyster shells, and all of the whole and cracked grains they will eat, they will make the best gains they are capable of.

Simplifying the Care of the Hens.

The work of caring for the pullets is greatly simplified by feeding a mixture of dry grains, beef scraps and other foods in self-feeders with partitions to separate the different foods and materials. By filling the self-feeders two or three times a week and keeping an abundant supply of fresh water at hand at all times, the labor will be minimized. With large coops that lift off from platforms it is an easy matter to clean and disinfect the coops and dispose of the droppings. By moving the coops once a week better sanitary conditions will prevail and the grass will not be killed out by the presence of the coops and the chicks. By making plans to do the daily poultry chores at a time when we do the other chores the work does not seem a burden and the pullets will be ready to lay eggs at the time when they are bringing the highest market price.

Liberal, but not extravagant, feed-

ing is the basis of success in developing pullets just the same as all other animals, and the term "liberal feeding" means a variety of the kinds of feed needed to promote growth and normal development. An ideal grain mixture for feeding pullets that have the run of the fields and orchards consists of 200 pounds of cracked corn, 100 pounds of wheat and 50 pounds of buckwheat. This, fed along with grit, oyster shells and beef scraps will produce ideal results. Some prefer to use a dry mash of bran, corn meal and middlings in connection with the whole and cracked grains, but if the pullets have a good range such a mixture is not needed.

When they Begin to Lay.

When the pullets begin to show indications of approaching maturity by the reddening of the comb and wattles and by following the attendant about, the addition of beef scraps and middlings will help start them to laying. Once they begin to lay it is easy, by good care and proper feeding, to keep them laying throughout the late fall and early winter. By providing ample room and encouraging them to exercise in a good dry scratching litter, into which is thrown two feeds a day of scratch food they will be busy and contented. Straw, coarse hay and dry leaves make ideal litter for the scratching floors.

New York. W. MILTON KELLY.

BUMBLEFOOT.

Bumblefoot is not a disease; it is, rather, the result of an injury to the foot and if not given attention will spoil the appearance, if not the usefulness of the bird. It is most common in the summer and fall months and appears mostly among the old fat hens or male birds. One of the chief causes is the high roosting pole, necessitating a heavy drop when flying down. This bruises the foot and causes it to swell. Another cause is scratching in hard dry ground and among cobblestones. When ground is dry and hot, the fowls feet seem to suffer and bumblefoot becomes more frequent. For this reason it is a good plan to have a shady spot in the yard which should be wet down frequently. Birds allowed on the range, where they can get into the grass while it is still wet with dew, seldom have any trouble with the feet. Moisture helps any injury that may be incurred, to heal quickly.

The cause of the trouble is a bruise on the soft pad of the foot. This bruise swells and fills with pus, which in time becomes a hard lump, causing permanent enlargement and disfigurement of the foot. When a bird is seen to go lame an examination should be made. If the foot is hot and shows signs of pus, lance it with a sharp-pointed knife, which has first been sterilized in boiling water. Then squeeze out the pus and wash the foot in a good disinfectant. Boracic acid dissolved in water is excellent for this purpose. After drying, wrap the foot in a clean cloth and place the fowl in a clean coop, where there is not much chance to move about, for a day or two, until the foot heals.

N. H.

C. H. C.

In the course of the season a lot of Barred Plymouth Rocks, having had free range and access to green feed all of the time, averaged a little over one pound havier than a similar lot kept confined. The mortality of the two lots was eight and 24 per cent respectively.

Farmers' Clubs

OFFICERS OF THE STATE ASSOCIATION OF FARMERS' CLUBS.

President—Jas. N. McBride, Burton.
Vice-president—J. F. Rieman, Flint.
Secretary-Treasurer—Mrs. C. P. Johnson, Metamora.

Corresponding Secretary—Mrs. J. S. Brown, Howell.

Directors—Wm. T. Hill, Carson City; Jerry Spaulding, Belding; R. J. Robb, Mason; Joseph Harmon, Battle Creek; C. B. Scully, Almont; C. T. Hamline, Alma.

Address all communications relative to the organization of new Clubs to Mrs. C. P. Johnson, Metamora, Mich.

Associational Motto:

"The skillful hand with cultured mind is the farmer's most valuable asset."

Associational Sentiment:

"The Farmer: He garners from the soil the primal wealth of nations."

A CLUB TRAVELOGUE.

At the September meeting of the Ingham County Farmers' Club, Mr. E. A. Densmore gave some comparisons between Michigan and the west, and told of some of the things that interested him in his recent trip. In the south he noticed their plowing with one mule or one ox and thought how grateful a Michigan farmer ought to be for his surroundings. Canal street in New Orleans impressed him for its width, as there were four street car tracks. On account of water the cemetery was all above ground and was supported by a rental value—if same was not paid the bones were taken away and someone else given the place. Galveston was situated upon an island and there was a mammoth sea wall, 17 feet high, six feet on top and 12 feet wide at the base. He found the Rio Grande river small and shallow when he had expected to see a large river. He spoke of the rice fields and cane fields in Louisiana and Texas and described an orange grove. He thought an apple orchard with the same care would be as profitable as an orange grove. The orange tree will bear some when five years old but is not in full bearing till seven or eight years old, they are picked twice a year, and told of his experience in cultivating. Nothing is sent to the market without a short stem, so there are very many good oranges wasted, and he did his part to save a few.

Around National City there are lemon ranches, and a few years ago when a hard frost came and destroyed the crop, they were left with no income, which never happens with diversified farming in Michigan.

He described an ostrich farm where birds were worth \$250 each. They were plucked when nine months old and every nine months. They have been known to live 65 years and have a stride of 22 feet, traveling 25 miles an hour. He also spoke of raising alligators and alfalfa, and described one large tree that was 125 feet to the first limb and would cut 35,000 feet of lumber, the first cut making four cords of four-foot wood. He visited the United States mint at San Francisco but did not know as much about it when he came out as when he went in, so when he came back to Denver, he visited another and asked questions. He described the ten thousand dollar brick, how it was remodeled into a longer and thinner piece, then made into a slab, passed through a punching machine, then an edging machine, where 80 twenty dollar gold pieces were edged in a minute and a hundred stamped in the same time. There are only two or three workers in the same room and they have to pass the civil service examination and also give bonds.

Grange.

NOTES ON RURAL SCHOOL PROGRESS.

(Continued from last week).
I heard the Glee Club sing, and give the Swaney school yell, with the same sort of enthusiasm as characterizes any city school. The yell itself, however, was very different. Patrons, members of school boards, teachers and pupils of these schools were present at this meeting for rural progress, and the noticeable thing about them was their pride in their communities and up-to-date school.

With all the apparent evidence of latent interest in country schools, it appears that the one thing needful to make this interest effective is someone to take the lead. Who? Anybody with zeal and determination enough to overcome obstacles, and deep-seated prejudice if need be. How? By beginning with the school just as it is and making it continually a better one-room school, just as one makes a home, little by little, more convenient, attractive and efficient.

JENNIE BUELL.

ILLINOIS GRANGE NOTES.

Guilford Hope Grange had its roll call responses at a recent meeting in the shape of ideas for improving the general conditions of the neighborhood. This was followed by a talk on how these improvements could be brought to pass. The oldest member of the Grange then spoke on "Recent Improvements in the County," which will be a help to farmers.

Oak Grove Grange recently had "The Practical Care of Horses and Cattle," discussed by a veterinarian of long experience.

Burritt Grange had quite a program of music and recitations not long ago, after which there was a talk on "Some of the Laws in this State which Impose Hardships on Farmers." This was followed by the question box, of which this Grange always makes a great feature.

AMONG THE LIVE GRANGES.

Montcalm County Pomona Grange held interesting sessions at the Howard City Grange Hall at their last meeting. About 65 members of the order were present. Worthy Master Ashley M. Berridge, of Greenville, one of the leading scientific farmers of the county, gave an excellent report of the four-county Grange picnic held early in August at Lowell, where approximately 4,000 members of the order assembled to hear addresses by national and state leaders of this organization. A fine chicken dinner was served at noon by the ladies of Howard City Grange and at the afternoon session they were highly complimented by the visitors on the quality of their entertainment. Howard City people usually have a way of making their guests feel at home. The program consisted of very interesting discussions on a variety of subjects related to farm life, educational methods, poultry raising, etc. Music, readings and around-table symposiums were also greatly enjoyed. Five members of Howard City Grange received the fifth degree.

Apple Day.—Many of the Granges of Western Michigan have arranged for an apple program for their second meeting in October. This is for the observance of apple day, which this year comes on Tuesday, October 20. Each Grange having an apple program will lay stress upon the importance of this fruit and will try to create a sentiment in favor of a greater use of the apple as an article of food.

Premiums from the County Fair to the amount of \$35 were received by Ironton Grange for exhibits made there. At the October 6 meeting a debate by two competent speakers on, Resolved, "That agriculture is of more importance to the farmer than horticulture," was most interesting.

A Public Meeting was held by the Morenci Grange on October 9 in the I. O. O. F. Temple. Chas. M. Gardner, of Massachusetts, a speaker of national repute and high priest of Demeter, the highest office in the National Grange, was chief speaker.

The Favorite of Your Favorite

TEN chances to one, your favorite ball-player smokes Tuxedo. We have scores of testimonials from the crack men of the crack nines all over the country, saying that they enjoy Tuxedo and recommending it to you.

Also—look around you the next time you pick out that soft seat in the bleachers or grandstand and see how many of your neighbors are packing their pipes with Tuxedo or rolling it into cigarettes.

Size up the men who are smoking and endorsing Tuxedo. They're real men, full of life and the joy of life.

Tuxedo

The Perfect Tobacco for Pipe and Cigarette

Tuxedo is in a class by itself. It has many imitators—but in the pipe it has no equal. It is made of the best selected Burley Tobacco, the finest that Kentucky grows, ripened, cured and aged until it has reached the tiptop of mildness, mellowness and sweetness. Then it is treated by the original "Tuxedo Process" which takes out all the sting so it cannot possibly bite.

YOU CAN BUY TUXEDO EVERYWHERE

Convenient pouch, 5c
Famous green tins, 10c
inner-lined with moisture-proof paper, with gold lettering, curved to fit pocket

In Glass Humidors, 50c and 90c

FREE Send us 2 cents in stamps for postage and we will mail you a souvenir tin of TUXEDO tobacco to any point in the United States. Address

THE AMERICAN TOBACCO COMPANY
Room 119 111 Fifth Avenue New York



CHRISTY MATHEWSON

"Tuxedo gets to me in a natural, pleasant way. It's what I call good, honest, companionable tobacco—the kind to stick to."

Christy Mathewson



JOHN J. MCGRAW

"Tuxedo gives to my pipe smoking a keen enjoyment that I have experienced with no other tobacco. Supreme in mildness and fragrance is Tuxedo."

John J. McGraw



LARRY LAJOIE

"Tuxedo and I have been friends for years, and the longer I use it the better I like its mild, soothing effects."

Larry Lajoie

GASOLINE ENGINES CHEAP

1 18 H. P. Field Brundage, mounted on steel truck . . . \$275
1 15 H. P. International Harvester, mounted on steel truck 265
1 10 H. P. International Harvester, mounted on steel truck 200
1 10 H. P. Shelby, mounted on steel truck . . . 175

The above engines are not old, worn out machines, they were taken in exchange for heavier power and are guaranteed as good as new.

Address Box 275, Lansing, Michigan.



WANTED! Every person in Michigan who has a

that needs to be Repaired, Relined or Remodeled to know that

The Blissfield Robe & Tanning Company,
Blissfield, Michigan.

does this work and does it **right**. Send your Fur Garments to us at our expense. If our price is not satisfactory we return goods to you PREPAID. Cold weather will soon be here. Send for free Catalogue.



This WITTE Saw-rig
Saws for
2¢ Per
Cord

5-Year
Guarantee

LET me send you this new complete Saw-rig, to earn its own cost while you pay for it. Or any other WITTE engine on the same reasonable terms.
Ed. H. Witte.

Easy to run on any of these fuels—
Kerosene, Distillate, Gasoline, & Gas

Buy Direct From My Factory
Let me send you what hundreds of satisfied users, from Maine to California, say of their earnings.

\$5 to \$10 a Day Profit

You can do as well with this fine-running rig. Most of my customers never saw one until they got their WITTE outfit, and every one has got along fine, right from the first day.

A regular WITTE engine mounted on an all-steel truck, equipped with detachable steel saw-frame, saw-blade, saw-guard, belt and belt-tightener, seat, foot-rest, chain-brake, muffler and pole. Evenly balanced—smooth running—easy starting—small fuel consumption. Proven good by 27 years' use under the hardest kind of work.

Get my New Free Book—"How to Judge Engines." It shows my engines inside and out. No one can sell you better engines for any price, and none as good for my prices. Write me today.

Ed. H. Witte, Witte Iron Works Co., 2196 Oakland Avenue, Kansas City, Missouri

WITTE ENGINES

New Prices!

ENGINE SAW-RIGS

6 H-P \$173.80

8 H-P 227.10

12 H-P 324.50

STATIONARY PORTABLE

2 \$34.95 \$40.95

4 69.75 82.80

6 99.35 141.80

8 139.65 190.40

12 219.90 279.80

16 298.80 378.70

22 399.65 483.15

Cash or Easy Terms

THE OCTOBER SALE!

175 Registered Tuberculin-tested **175**
HOLSTEIN-FRIESIAN

CATTLE

State Fair Grounds, Detroit, Mich.

October 14 & 15, 1914

Michigan is fast coming to the front in the production of Holsteins. This sale will afford an excellent opportunity to purchase foundation-stock and get started right in the most profitable line of the dairy business.

Among the cattle consigned are:

7 daughters and 8 granddaughters of Johan Hengerveld Lad 45104.

7 daughters of King Pietertje Hartog 53502.

5 daughters of King Mateal 94348.

11 in calf to Johanna Korndyke De Kol 45577.

8 in calf to Ypsiland Sir Pontiac De Kol 79278.

7 in calf to Sir Lieuwkje Korndyke Kate De Kol 106434.

Heifers from dams with records up to 30.79.

A dozen high class Bulls.

KELLEY and HAEGER, Auctioneers. S. T. WOOD, Sale Mgr.

THE MICHIGAN BREEDERS CONSIGNMENT SALE CO.

Catalog on request. H. W. NORTON, Jr., Mgr., Howell, Mich.

101-Reg. Holstein Cows-101

To be sold in 5 hours (1 every 3 minutes.)

Friday, Oct. 23, at 12 m.

— AT THE —

Sale Pavilion, Howell, Mich.

Consigned by the Howell Sales Company of Livingston Co.

Daughters of 30-lb. Bulls bred to 30-lb. Bulls, A. R. O. cows and daughters of A. R. O. cows bred to 30-lb. aires. These cattle have been selected from the herds of 24 prominent breeders of Livingston county and are a fair representation of their stock. The object of this sale is to give the breeders of the state an opportunity to buy representative Livingston County Holsteins at a public auction and every effort is being made to present the finest lot of young cows ever offered at a Howell sale. Sold without reserve at your own price. Catalogs Oct 1.

A. RALPH EASTMAN, Sec.

Cool D. L. PERRY Auc. S. T. WOOD, Ped. Expert.

Screenings, Salvage Grains

Wholesale prices.
Bartlett Co.
Jackson, Mich.

BREEDERS' DIRECTORY.

CATTLE.

ABERDEEN ANGUS

Bull calves and yearlings ready for service. Sired by Louis of Viewpoint II. Closely related to five Grand Champions—Brother, Sister, Sire, Sire's Brother and Grandire. (International Grand Champion for three years in succession. Prices \$75 up. Will meet prospective purchasers either at Somerset, Addison or Addison Junction.) You are bound to get good calves from these bulls even with strongly dairy type grade cows.

GEO. B. SMITH & CO.,
ADDISON AND SOMERSET, MICHIGAN.

ABERDEEN-ANGUS

HERD FOUNDED IN 1900.
Strains represented consist of Trojan Ericas, Black-birds and Prides, only. Black Quality Ito, a bull of rare individuality and merit, heads the herd.

WOODCOTE STOCK FARM, Ionia, Mich.

FOR SALE—Pure Bred Aberdeen Angus Cattle.

A few Bulls and Cows.

ANDREW P. EITEL, Vermontville, Michigan.

Guernseys—Famous May Rose Strain. A select herd.

Tub. Tested. Several A. R. O. Cows.

J. K. Blatchford, Windermere Farm, Watervliet, Mich.

We have for sale a number of pure Guernsey cows,

heifers and bulls, also Berkshire hogs.

VILLAGE FARM, Grass Lake, Michigan.

FOR SALE THOROBBED HOLSTEIN HEIFERS

AND BULLS. Now is your chance

to start a herd. One of the best in the State. Sired

by Laundry Girl Butter Boy, Rag Apple Glada

Colantha Vale, Elzevora Johanna De Vries. Some of

these Heifers and Bulls are out of A. R. O. Dams.

Price is \$250 per pair, and up.

LOUIS NELDER, Lansing, Michigan.

Holstein-Friesian Breeder—The best fami-

lies of the breed represented. D. D. AITKEN, Flint, Michigan.

\$75.00 buys a REGISTERED HOLSTEIN

BULL, 12 mo. old, straight as a line

evenly marked B. B. REAVEY, Akron, Michigan.

FOR SALE—REGISTERED HOLSTEIN

BULL, 1½ years old, ½ white

of popular breeding. A. L. MOORE, Okemos, Mich

Breeders Directory Continued 295.

Disinfect Your Pens

MOST hog diseases are caused from neglect to keep the pens disinfected and free from foul odors. Filthy premises are sure places for the outbreaking of disease and lice. To keep your pens and troughs sanitary you can't use anything better than Dr. Hess Dip and Disinfectant. It is a guaranteed louse killer and a sure destroyer of germs and foul odors. It is used by Dr. Hess himself, who is a qualified veterinarian, doctor of medicine and scientific stock raiser.

Dr. Hess Dip and Disinfectant

should be used in the hog wallow. Dip your hogs with it. Keeps the skin smooth and clear and free from parasitic skin diseases. Nothing better for disinfecting pens, stables, troughs, sinks, drains, garbage cans, etc. It's always uniform in strength—therefore safe to use and sure in results. One gallon Dip makes 70 gallons solution. Sold in pint bottles, quarts, half-gallon and gallon cans, also in barrels.

Send for free Dip Book.
If your dealer can't supply you, write to

DR. HESS & CLARK
Ashland, Ohio



CURA-BOS SAVES NEW-BORN CALVES.

A Successful Remedy for

SCOURS

Positively Cures (also prevents) this dreaded disease. Used extensively in high grade dairies. Trial bottle to reputable stockmen FREE. Send 10 cents for packing and postage. Dairy size, \$1, postpaid. Veterinary size, \$2. TROY CHEMICAL CO., 20 Commerce St., Binghamton, N. Y.

HOG FEEDS, SALVAGE

ONE HUNDRED HEAD of Stock Cattle ready for sale at once. Five cars of two-year-old steers will be ready for sale Oct. 15, 1914. J. B. GARDNER, Cadillac, Michigan. L. B. 437.

(Continued from page 3021.)

Exhibitors' Herd—Kite, 1st; Fisher, 2nd.

Breeders' Herd—Kite, 1st; Fisher, 2nd.

Four of either sex, same of same boar—Kite, 1st; Fisher, 2nd.

Four of either sex, produce of same sow—Fisher, 1st; Kite, 2nd.

Champion boar over one year, champion boar under one year, champion sows and grand champions were won by F. E. Kite.

The special premium offered by the American Yorkshire Club for the best young herd consisting of boar and three sows under one year was won by F. E. Kite.

Tamworths.

Boar, 2 yrs. or over—Oakridge Farm, Oakridge, Va., 1st and 2nd; Adams Bros., Litchfield, Mich., 3rd.

Boar, 18 mos. and under 2 yrs.—Oak Ridge Farm, 1st; Adams Bros., 2nd.

Boar, 12 mos. and under 18 mos.—Oak Ridge Farm, 1st; Adams Bros., 2nd.

Boar, 6 mos. and under 12 mos.—Oak Ridge Farm, 1st and 2nd; Adams Bros., 3rd and 4th.

Boar, under 6 mos.—Oak Ridge Farm, 1st; Adams Bros., 2nd and 3rd.

Sow, 2 yrs. or over—Oak Ridge Farm, 1st and 2nd; Adams Bros., 3rd.

Sow, 18 mos. and under 2 yrs.—Oak Ridge Farm, 1st, 2nd and 3rd; Adams Bros., 4th.

Sow, 12 mos. and under 18 mos.—Oak Ridge Farm, 1st and 2nd; Adams Bros., 3rd and 4th.

Sow, 6 mos. and under 12 mos.—Oak Ridge Farm, 1st, 2nd and 3rd; Adams Bros., 4th.

Sow, under 6 mos.—Oak Ridge Farm, 1st, 2nd and 3rd; Adams Bros., 4th.

Exhibitors' Herd—Oak Ridge Farm, 1st; Adams Bros., 2nd.

Breeders' Herd—Oak Ridge Farm, 1st; Adams Bros., 2nd.

Four of either sex, get of same boar—Oak Ridge Farm, 1st, 2nd and 3rd; Adams Bros., 4th.

Four of either sex, produce of same sow—Oak Ridge Farm, 1st; Adams Bros., 2nd.

Champion boar 1 yr. or over, champion boar under 1 yr, champion sow 1 yr. or over, champion sow under 1 yr., grand champion boar, grand champion sow, premier champion exhibitor, premier champion breeder, all won by Oak Ridge Farm.

SHEEP.

Shropshires.

Ram, 2 yrs. or over—E. E. Leland & Son, Ann Arbor, Mich., 1st and 5th; Niagara Stock Farm, Lewiston, N. Y., 2nd and 4th; Herbert E. Powell, Ionia, Mich., R. I. 3rd.

Ram, 1 yr.—Powell, 1st and 5th; Niagara Stock Farm, 2nd, 3rd and 4th.

Ram, Lamb—Niagara Stock Farm, 1st and 4th; Powell, 2nd; Leland & Son, 3rd and 5th.

Ewe, 1 yr.—Niagara Stock Farm, 1st and 2nd; Leland & Son, 3rd; Powell, 4th and 5th.

Ewe, Lamb—Leland & Son 1st and 5th; Niagara Stock Farm, 2nd and 3rd; Powell, 4th.

Flock—Niagara Stock Farm, 1st; Leland & Son, 2nd; Powell, 3rd.

Breeders, Young Flock—Niagara Stock Farm, 1st; Leland & Son, 2nd; Powell, 3rd.

Flock, Lamb—Leland & Son, 1st; Powell, 2nd; Niagara Stock Farm, 3rd.

Three Rams, Yearling—Niagara Stock Farm, 1st; Powell, 2nd; Leland & Son, 3rd.

Get of Sire—Niagara Stock Farm, 1st; Leland & Son, 2nd; Powell, 3rd.

Ram—Powell, 1st; Niagara Stock Farm, 2nd.

Ewe—Niagara Stock Farm, 1st; Leland & Son, 2nd.

Hampshires.

Ram, 2 yrs. or over—R. A. Kyser, Lowell, Mich., 1st and 3rd; Wm. Newton, Pontiac, Mich., 2nd, 4th and 5th.

Ram, 1 yr.—Kyser, 1st and 2nd; Newton, 3rd and 4th.

Ram, Lamb—Kyser, 3rd and 4th; Newton, 2nd and 5th.

Ewe, 2 yrs. or over—Newton, 1st and 3rd; Kyser, 2nd and 4th.

Ewe, 1 yr.—Newton, 1st and 4th; Kyser, 2nd and 3rd.

Ewe, Lamb—Newton, 1st and 4th; Kyser, 2nd, 3rd and 5th.

Flock—Newton, 1st; Kyser, 2nd.

Breeders, Young Flock—Kyser, 1st; Newton, 2nd.

Flock, Lamb—Kyser, 1st; Newton, 2nd.

Get of Sire—Kyser, 1st; Newton, 2nd.

Ram—Kyser, 1st; Newton, 2nd.

Ewe—Newton, 1st; Kyser, 2nd.

Flock, 2 yr. Ewes, 2 Lambs, Ram, any age—Kyser, 1st.

Oxford Downs.

Ram, 2 yrs. or over—G. W. Heskett, Fulton, Ohio, 1st and 2nd; Wm. Newton, Pontiac, Mich., 3rd.

Ram, 1 yr.—Heskett, 1st and 3rd; Newton, 2nd.

Ram, Lamb—Heskett, 1st, 2nd and 4th; Newton, 3rd.

Ewe, 2 yrs. or over—Heskett, 1st, 2nd and 3rd; Newton, 4th.

Ewe, 1 yr.—Heskett, 1st, 2nd and 3rd; Newton, 4th.

Flock—Heskett, 1st; Newton, 2nd.

Breeders, Young Flock—Heskett, 1st; Newton, 2nd.

Lamb, Flock—Niagara Stock Farm, 1st and 2nd; Heskett, 3rd and 4th.

Ewe, 2 yrs. or over—Niagara Stock Farm, 1st and 2nd; Heskett, 3rd, 4th and 5th.

Ewe, 1 yr.—Niagara Stock Farm, 1st and 2nd; Heskett, 3rd, 4th and 5th.

Ewe, Lamb—Niagara Stock Farm, 1st and 2nd; Heskett, 3rd and 4th.

Flock—Niagara Stock Farm, 1st; Heskett, 2nd.

Breeders, Young Flock—Niagara Stock Farm, 1st; Heskett, 2nd.

Lamb, Flock—Niagara Stock Farm, 1st; Heskett, 2nd.

Get of Sire—Niagara Stock Farm, 1st; Heskett, 2nd.

Ram—Niagara Stock Farm, 1st and 2nd.

Ewe—Niagara Stock Farm, 1st and 2nd.

Southdowns.

Ram, 2 yrs. or over—Niagara Stock Farm, Lewiston, N. Y., 1st; George W. Heskett, Fulton, O., 2nd; Wm. Newton, Pontiac, Mich., 3rd.

Ram, 1 yr.—Niagara Stock Farm, 1st and 3rd; Heskett, 2nd and 4th.

Ewe, Lamb—Niagara Stock Farm, 1st and 2nd; Heskett, 3rd and 4th.

Ewe, 2 yrs. or over—Niagara Stock Farm, 1st and 2nd; Heskett, 3rd, 4th and 5th.

Ewe, 1 yr.—Niagara Stock Farm, 1st and 2nd; Heskett, 3rd, 4th and 5th.

Ewe, Lamb—Niagara Stock Farm, 1st and 2nd; Heskett, 3rd and 4th.

Flock—Niagara Stock Farm, 1st; Heskett, 2nd.

Breeders, Young Flock—Niagara Stock Farm, 1st; Heskett, 2nd.

Lamb, Flock—Niagara Stock Farm, 1st; Heskett, 2nd.

Get of Sire—Niagara Stock Farm, 1st; Heskett, 2nd.

Ram—Niagara Stock Farm, 1st and 2nd.

Ewe—Niagara Stock Farm, 1st and 2nd.

Lincolns.

Ram, 2 yrs. or over—John S. Gosnell & Sons, Highgate, Ont., 1st; A. C. Fielder, DeGraff, Ohio, 2nd and 3rd; E. Knight & Sons, Gagetown, Mich., 4th; Wm. Newton, Pontiac, Mich., 5th.

Ram, 1 yr.—Gosnell & Sons, 1st; Fielder, 2nd and 3rd; Newton, 4th; Knight & Sons, 5th.

Ram, Lamb—Fielder, 1st and 5th; Gosnell & Sons, 2nd, 3rd and 4th.

Ewe, 2 yrs. or over—Fielder, 1st; Gosnell & Sons, 2nd and 4th; Peter A. MacIntyre, Parkhill, Ont., 3rd; Knight & Sons, 5th.

Ewe, 1 yr.—Gosnell & Sons, 1st, 3rd and 4th; Fielder, 2nd and 5th.

Flock—Gosnell & Sons, 1st; Fielder, 2nd; Knight & Sons, 3rd; Newton, 4th; MacIntyre, 5th.

Breeders, Young Flock—Gosnell & Sons, 1st; Knight & Sons, 2nd.

Flock, Lamb—Gosnell & Sons, 1st; Knight & Sons, 2nd; MacIntyre, 3rd.

Get of Sire—Gosnell & Sons, 1st; Knight & Sons, 2nd; MacIntyre, 3rd.

Ram—Gosnell & Sons, 1st and 2nd.

Ewe—Gosnell & Sons, 1st; Fielder, 2nd.

Delaine Merinos.

Ram, 2 yrs. or over—W. M. Staley, Marysville, Ohio, 1st and 3rd; S. Blamer, & Son, Johnstown, Ohio, 2nd.

Ram, 1 yr.—Blamer & Son, 1st and 4th; Staley, 2nd and 3rd.

Ram, Lamb—Staley, 1st and 2nd; Blamer & Son, 3rd.

Ewe, 2 yrs. or over—Blamer & Son, 1st and 2nd; Staley, 3rd and 4th.

Ewe, 1 yr.—Staley, 1st and 2nd; Blamer & Son, 3rd, 4th and 5th.

Ewe, Lamb—Staley, 1st and 2nd; Blamer & Son, 3rd.

Flock—Blamer & Son, 1st; Staley, 2nd.

Breeders, Young Flock—Staley, 1st; Blamer & Son, 2nd.

Lamb, Flock—Staley, 1st; Blamer & Son, 2nd.

Get of Sire—Staley, 1st; Blamer & Son, 2nd.

Ram—Staley, 1st; Blamer & Son, 2nd.

Ewe—Blamer & Son, 1st; Staley, 2nd.

American Merinos.

Ram, 2 yrs. or over—Staley, 1st and 3rd; Blamer & Son, 2nd; R. D. Stephens, South Lyon, Mich., 4th and 5th.

Ram, 1 yr.—Staley, 1st and 4th; Blamer & Son, 2nd and 3rd; Stephens, 5th.

Ram, Lamb—Staley, 1st and 5th; Blamer & Son, 2nd and 3rd; Stephens, 4th.

Ewe, 2 yrs. or over—Blamer & Son, 1st and 4th; Staley, 2nd and 3rd; Stephens, 5th.

Ewe, 1 yr.—Staley, 1st and 3rd; Blamer & Son, 2nd and 4th; Stephens, 5th.

Ewe, Lamb—Staley, 1st and 4th; Stephens, 2nd; Blamer & Son, 3rd and 5th.

Flock—Staley, 1st; Blamer & Son, 2nd; Stephens, 3rd.

Breeders, Young Flock—Staley, 1st; Blamer & Son, 2nd; Stephens, 3rd.

Lamb, Flock—Staley, 1st; Stephens, 2nd; Blamer & Son, 3rd.

Get of Sire—Staley, 1st; Stephens, 2nd; Blamer & Son, 3rd.

Ram—Staley, 1st and 2nd.

Ewe—Blamer & Son, 1st; Staley, 2nd.

Rambouillets.

Ram, 2 yrs. or over—A. A. Wood & Son, Saline, Mich., 1st and 3rd; J. M. Shaw & Son, Edison, Ohio, 2nd; P. C. Freeman & Son, Lowell, Mich., 4th and 5th.

Ram, 1 yr.—Shaw & Son, 1st; Wood

& Son, 2nd and 3rd; Freeman, 4th.
 Ram, Lamb—Shaw & Son, 1st;
 Wood & Son, 2nd, 3rd and 4th.
 Ewe, 2 yrs. or over—Shaw & Son,
 1st; Freeman & Son, 2nd and 3rd;
 Wood & Son, 4th.
 Ewe, 1 yr.—Shaw & Son, 1st; Wood
 & Son, 2nd and 3rd; Freeman & Son,
 4th and 5th.
 Ewe, Lamb—Shaw & Son, 1st;
 Wood & Son, 2nd and 5th; Freeman
 & Son, 3rd and 4th.
 Flock—Shaw & Son, 1st; Freeman
 & Son, 3rd; Wood & Son, 2nd.
 Breeders, Young Flock—Wood &
 Son, 1st; Freeman & Son, 2nd.
 Lamb, Flock—Wood & Son, 1st;
 Freeman & Son, 2nd.
 Get of Sire—Wood & Son, 1st;
 Freeman & Son, 2nd.
 Ram—Shaw & Son, 1st.
 Ewe—Shaw & Son, 1st.
Horned Dorsets.
 Ram, 2 yrs. or over—Geo. C. Wood-
 man, Bennington, Mich., 1st, 2nd and
 3rd; Wm. Newton, Pontiac, Mich., 4th.
 Ram, 1 yr.—A. C. Fielder, DeGraff,
 Ohio, 1st; Woodman, 2nd and 4th;
 Newton, 3rd.
 Ram Lamb—Fielder, 1st and 2nd;
 Woodman, 3rd; Newton, 4th.
 Ewe, 2 yrs. or over—Fielder, 1st;
 Woodman, 2nd and 3rd.
 Ewe, 1 yr.—Fielder, 1st; Woodman,
 2nd and 3rd.
 Ewe Lamb—Fielder, 1st and 3rd;
 Woodman, 2nd, 4th and 5th.
 Flock—Fielder, 1st; Woodman, 2nd.
 Breeders' Young Flock—Woodman,
 1st; Fielder, 2nd; Newton, 3rd.
 Lamb Flock—Woodman, 1st; Field-
 er, 2nd.
 Get of Sire—Woodman, 1st; Fielder
 2nd.
 Gd. Champ. Ram—Fielder.
 Gd. Champ. Ewe—Fielder.
Cheviots.
 Ram, 2 yrs. or over—F. E. Dawley,
 Fayetteville, N. Y., 1st; Woodman,
 2nd and 3rd.
 Ram, 1 yr.—Dawley, 1st; Woodman,
 2nd and 3rd.
 Ram, Lamb—Dawley, 1st; Wood-
 man, 2nd and 3rd.
 Ewe, 2 yrs. or over—Dawley, 1st;
 Woodman, 2nd and 3rd.
 Ewe, 1 yr.—Dawley, 1st and 3rd;
 Woodman, 2nd and 4th.
 Ewe Lamb—Dawley, 1st and 3rd;
 Woodman, 2nd and 4th.
 Flock—Dawley, 1st; Woodman, 2nd.
 Breeders' Young Flock—Dawley,
 1st; Woodman, 2nd.
 Lamb Flock—Dawley, 1st; Wood-
 man, 2nd.
 Get of Sire—Dawley, 1st; Woodman
 2nd.
 Gd. Champ. Ram and Ewe—Dawley.
Cotswolds.
 Ram, 2 yrs. or over—Norman Park,
 Norwich, Ont., 1st and 3rd; James A.
 Campbell, Thedford, Ont., 2nd and
 4th; Newton, 5th.
 Ram, 1 yr.—Campbell, 1st; Park,
 2nd, 3rd and 5th; Newton, 4th.
 Ram Lamb—Park, 1st, 3rd and 4th;
 Campbell, 2nd and 5th.
 Ewe, 2 yrs. or over—Park, 1st;
 Campbell, 2nd, 3rd and 4th; Newton,
 5th.
 Ewe, 1 yr.—Park, 1st, 4th and 5th;
 Campbell, 2nd and 3rd.
 Ewe Lamb—Park, 1st and 3rd;
 Campbell, 2nd and 4th; Newton, 5th.
 Flock—Park, 1st; Campbell, 2nd;
 Newton, 3rd.
 Breeders' Young Flock—Campbell,
 1st; Park, 2nd.
 Lamb Flock—Campbell, 1st; Park,
 2nd.
 Get of Sire—Park, 1st; Campbell,
 2nd.
 Gd. Champ. Ram—Park, 1st; Camp-
 bell, 2nd.
 Gd. Champ. Ewe—Park.
Fat Sheep—Open to all Pure-Breds.
 Middlewood Wether, over 2 yrs.—
 Newton, 1st and 2nd.
 Middlewood Wether, 1 yr. and under
 2—Heskett, 1st and 2nd.
 Middlewood Wether—Heskett, 1st.
 Longwood Wether, over 2 yrs.—
 Newton, 1st and 2nd.
 Longwood Wether, 1 yr. and under
 2—Gosnell & Son, 1st; Campbell, 2nd.
 Longwood Wether, under 1 yr.—
 Gosnell & Sons, 1st; Newton, 2nd.
 Longwood Wether—Gosnell & Sons,
 1st.
 Merino Wether, over 2 yrs.—New-
 ton, 1st and 2nd.
 Merino Wether, under 1 yr.—Free-
 man & Sons, 1st and 2nd.
 Merino Wether—Newton, 1st.

The reason for the low prices is be-
 cause buyers are afraid of the new
 storage law now before congress. This
 law, if passed, which at present seems
 quite likely, will be a great blow to
 the onion industry, according to the
 sentiment of some of the onion buy-
 ers. As the law would give power to
 a commissioner to regulate the buy-
 ing and selling prices of commodities
 handled by all storage houses and
 grain elevators, it is feared disastrous
 results would follow as the commis-
 sioner could dictate what prices on-
 ion storage men should pay, and what
 prices they should sell them for. Tak-
 en altogether, the onion situation is
 not favorable, although there are still
 some who believe the law will not be
 passed.

BEACH FARM GUERNSEYS

We have for sale imported and
 home bred Bull Calves, guaranteed
 free from tuberculosis. They are
 fine and have had the best of care.
 Send for sale list, or what is better
 for both parties, come and see them.

CAMPBELL & ANGEVINE, Coldwater, Mich.

FOR SALE, 3 REGISTERED GUERNSEY BULLS.
 Cheap if taken soon the best breeding yet. Write
 JOHN EBELS, Holland, Michigan.

HEREFORD BULLS 2 six months old
 1 18 months old.
 ALLEN BROS., Paw Paw, Michigan.

THE THREE BEST HOLSTEIN CATTLE
 Poland China Hogs and S. O. White Leghorns.
 FOREST SIDE STOCK FARM
 M. H. Chamberlain Jr. Prop., Romeo, Mich

10 HOLSTEIN BULLS FROM 1 TO 3 YEARS OLD

Ten Bull calves, two to ten months old.
 Ten cows, Your Choice from my entire
 herd. Don't let anybody make you
 believe he can sell you a better bull for
 less money than I can. Don't delay the
 purchase of bull until the other fellow
 gets the one you want. Write me or
 come at once.

L. E. CONNELL, Fayette, Ohio.

HATCH HERD
 REGISTERED HOLSTEIN-FRIESIANS
 YPSILANTI, MICH., offers
 HERD HEADERS from choice A. B. O. dams and
 King Pontiac Jewel Korndyke. 50 dams in his
 pedigree average 31.25 pounds in 7 days. Average per
 cent of fat of three nearest dams 4.57. Sires in first
 three generations in his pedigree have 500 A. B. O.
 daughters. Prices reasonable.
 Make your own selection at Ashmoor Farms,
 Tecumseh, Michigan, R. F. D. No. 2, or address
 HATCH HERD, YPSILANTI, MICHIGAN.

I Will Buy and Sell Holstein Cattle on commis-
 sion. Large acquaintance among the breeders.
 Bank references, Freeman J. Fishbeck, Howell, Mich.

HOLSTEIN FRIESIAN CATTLE. Bulls for sale,
 the kind that will satisfy or money refunded.
 JONES & LUTZ, Oak Grove, Michigan.

BIGELOW'S HOLSTEIN FARMS
 Breedsville, Michigan,
 Breeder of high class
 Registered Holsteins.

"Top-Notch" Holsteins.
 Extra large fine young bull, 3/4 white, born Oct. 4, 1913.
 Dam has official record of 29.40 lbs. butter in 7 days.
 117.50 lbs. in 30 days. Sire's dam is a 22.64 lb. 4 yr.-old
 daughter of a 30.59 lb. cow.
 McPHERSON FARMS CO., Howell, Michigan.

For Sale—High grade Holstein calves by 25 lb.
 sire. Week old bulls \$10., orated.
 CHAS. S. RILEY, R. No. 1, Metamora, Michigan.

HOLSTEIN BULL—27.42 lb. dam, her
 dam 30.59 lbs. 5
 nearest dams average 25 lbs. Born Nov. 1911. Gentle,
 quick, sure. \$150 delivered. Hobart W. Fay, Mason, Mich

FOR SALE—At a reasonable price, a fine Reg-
 istered Holstein bull coming 3 yrs.-old.
 CLYDE FISHER, St. Louis, Michigan.

REGISTERED HOLSTEINS—Herd headed by Albino
 Bonte Butter Boy No. 33124, whose dam has semi-
 official yearly record. Butter 802 lbs. Milk 18622 lbs. as a
 2-yr.-old. No stock for sale. W. B. Reader, Howell, Mich.

\$50 gets 8 weeks old bull, 27 lb. sire. Dam traces
 direct to De Kol 24 10 times, twice to Pontiac
 Korndyke. M. L. McLAULIN, Redford, Michigan.

MICHIGAN HOME AND TRAINING SCHOOL
 LAPEER, MICHIGAN
 Breeder of High Grade Holstein Cattle. Lists and
 prices upon application.

ESPANORE FARM, Lansing, Michigan.
 Offers for sale a

Holstein Bull Calf

A splendid individual of excellent breeding. Soon
 ready for service. Write for particulars.
 CHAS. S. OSBORN, Owners, L. M. HATCH.
 ADAM E. FERGUSON, Supt.

HOLSTEIN BULLS READY FOR
 BUSINESS.
 World record stock \$150 to \$400. LONG BEACH
 FARMS, Augusta, Kalamazoo Co., Michigan.

THE WILDWOOD HERD
 REGISTERED JERSEYS, Herd headed by Majesty's
 Wonder 90717. For sale a Grand Son of Royal
 Majesty, and out of a cow that produced over 500 lbs.
 butter in one year. Grand individual. Write for prices
 or come and see. ALVIN BALDEN, Capac, Mich.

FOR SALE—Six pure bred Jersey Cattle, one
 just fresh and the others to freshen
 within two or three months, all
 under seven years old. Bargain if taken soon.
 F. L. FREELAND, Big Rapids, Michigan.

Lillie Farmstead Jerseys

Bulls ready for service, several from Register of
 Merit Cows. Four bred heifers, good ones. Herd
 Tuberculin tested. Prices reasonable.
 COLON C. LILLIE, Coopersville, Michigan.

Jerseys. Bulls ready for service, extra quality sired
 J by Jacob's Fairy Emerson. No. 10711, from high
 producing dams. SMITH & PARKER, Howell, Mich.

IXION FARMS offer choicely bred young Holstein
 Bulls, \$75 to \$100 each, with all papers.
 S. O. RATHFON & SON, R. F. D. 5, Ypsilanti, Mich.

The Jersey

comes into maturity early, is
 long-lived and is often found
 making records even to ad-
 vanced age. She stands
 above all other breeds for
 economic production. Shall we mail
 you free a good book on the Jersey?
 THE AMERICAN JERSEY CATTLE CLUB,
 324 W. 23d St., New York City.

MAPLE Lane Register of Merit Jersey Herd—Tu-
 berculin tested by U.S. Government. Bull calves
 from cows in h. of M. test. Heifer calves whose dams,
 grand-dams, and great grand-dams are in the Register
 of Merit. IRVIN FOX, Allegan, Michigan.

NOW IN SERVICE—A Son of the \$50,000 sire
 King Segis Pontiac Alcatraz,
 GREGORY & BORDEN, Howell, Michigan.

CROUSE'S OLD HOMESTEAD JERSEYS
 Are overstocked and will sell at bargain prices, heifers
 and bulls all ages, four bulls ready for service.
 Tuberculin tested. Foundation stock. Famous
 Marston Herd. Write for prices.
 J. B. CROUSE, Hartland, Michigan.

JERSEYS—For list of stock for
 sale and Jersey facts
 write A. P. EDISON, Sec. M. J. O. C., 326 W. Bridge,
 Grand Rapids, Mich. If a breeder and a member
 of M. J. O. C. send list of stock for sale to the above.

JERSEYS—YEARLING BULL READY FOR
 SERVICE. Also bull calves.
 Brookwater Farm, R. F. D. No. 7, Ann Arbor, Mich.

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

FOR SALE Registered Jersey Cattle
 Mature cows and heifers
 WATERMAN & WATERMAN, Ann Arbor, Michigan.

Dairy Bred Shorthorns, A Few Females For Sale.
 J. B. HUMMEL, Mason, Michigan.

SHORTHORN AND POLLED DURHAM COWS, with
 calves by their side, young bulls and heifers.
 Get prices. FRANK BARTLETT, Dryden, Mich.

Young Shorthorn Bulls And Oxford Down Yearling
 Rams for sale.
 H. B. PETERS, Burton, Michigan. R. R. Elsie.

Shorthorns—Dairy or beef bred. Breeding stock all
 ages for sale at farmers prices. C. W. Cram.
 Secy. Cent. Mich. Shorthorn Breeders' Assn., McBride, Mich.

SHORTHORN BULLS FOR SALE—Red and Boans,
 10,160 lbs. milk and 518 lbs. butter with first calf in one
 year. Reasonable price. Write, F. W. Johnson, Ouster, Mich.

SHORTHORNS: 6 CHOICE YOUNG BULLS FOR SALE
 W. W. KNAPP, Howell, Michigan.

SHEEP.

IT PAYS TO BUY PURE BRED SHEEP
 OF PARSONS
 "The Sheppan
 of the East"
 I sell and ship every-
 where and pay ex-
 press charges. I will
 start one man in each
 town. Write for club
 and descriptive
 price list. Oxford,
 Shropshire, Ram-
 boulet and Polled-
 Delaines.
 PARSONS, Grand Ledge, Michigan R 1

RAMS—SHROPSHIRE OXFORDS AND
 HAMPSHIRE. Good strong well
 woolled fellows ready for business. Shipped to you
 without the money. Isn't that fair? If so write
 KOPE KON FARM, Kinderhook, Michigan.

HAMPSHIRE. Choice young stock for fall breeding, both
 sexes, prices reasonable. West Wind Farm, Pontiac, Mich.
 E. P. HAMMOND, Owner. N. A. WISER, Manager.

Leicesters—Yearling and ram lambs from Champion
 flock of Thumb of Mich. Also select Bek-
 hire swine. Elmhurst Stock Farm, Almont, Mich.

POLLED DELAINE RAMS FOR SALE—Big heavy
 shearers. F. L. BROKAW, Eagle, Michigan.

Ohio Delaines & Merinos—Bred in line 40 years, size,
 quality, heavy shearers.
 Priced right. S. H. SANDERS, Ashtabula, Ohio.

Oxforddown Yearlings and Ram Lambs
 M. F. GANSSLEY, Lennon, Michigan.

Shropshire Yearling and Ram Lambs, large frames.
 Wool and Mutton type. Also O. I. C. swine.
 G. P. ANDREWS, Dansville, Michigan.

SHROPSHIRE—Am offering a few choice rams
 at reasonable prices.
 C. J. THOMPSON, Rockford, Michigan.

SHROPSHIRE—Imported Cooper rams 4 yrs.
 old. 20 Registered ewes.
 W. P. PULLING & SON, Parma, Michigan.

SHROPSHIRE RAMS AND EWS FOR SALE
 DAN BOOHER, R. No. 1, Marion, Michigan.

REG. SHROPSHIRE—Rams and ewes.
 Prices reasonable.
 HARRY POTTER, R. No. 5, Davison, Michigan.

THE MAPLES SHROPS—We offer 20 extra yearling
 rams, a 2-yr.-old stock ram bred by Campbell, also
 ewes. E. E. Leland & Son, R. R. 9, Ann Arbor, Mich

HOGS.

FEEDER HOGS FOR SALE
 SERRADELLA FARM, Oscoda, Michigan.

ROYALTON BRED BERKSHIRES—Fine April sows,
 registered stock,
 with papers. \$20 to \$25 each.
 D. F. VALENTINE, Supt., Temperance, Michigan.

Berkshires—Reg. Berkshire Boars ready for services
 also spring pigs either sex at farmer.
 prices. White Oak Farm, R. No. 4, Brown City, Mich.

BERKSHIRES—Some Choice Gilts of May
 farrowing to let go at once.
 A. A. PATTULLO, Deckerville, Michigan.

O. I. C's—For 12 years I have been breeding Big Type O. I. C.
 swine and now have one of the best Big Type herds
 in the land, quality considered. Herd boar. Lengthy Prince
 No. 28101, vol. 16 O. I. C. record, a 700 lb. boar in breeding
 condition. White Monarch No. 42058, vol. 16, O. I. C. record,
 a 500 lb. Jr. yearling. Dams of equal size and merit. Young
 stock for sale at all times. Prices reasonable. Will ship C. O. D.
 NEWMAN'S STOCK FARM, R. No. 1, Marlette, Michigan.

Chester Whites—Reg. Bred Gilts—Orders taken for
 spring pigs and Collie pups. Holstein
 Bulls at Bargains. FAY B. PAREHAM, Bronson, Mich.

CHESTER WHITES. August and September pigs, from
 Cires as Chickasaw Bud, Modeler, Bronson King. A certificate
 of registry with each pig. John Gintling, Bronson, Michigan.

O. I. C. SWINE—Both sex. Write
 your wants.
 BUTTERNUT FARM, Lupton, Michigan.

O. I. C.—Choice spring boars from A No. 1
 Stock. Pedigrees furnished.
 N. H. WEBER, Royal Oak, Michigan.

O. I. C. Bred sows and spring pigs, large and growthy.
 Pairs and trios, not akin. Write your wants.
 GLENWOOD STOCK FARM, Zeeland, Mich.

O. I. C's—Large boned, shipped on approval,
 pairs not akin, registered free.
 J. W. HOWELL, Elsie, Michigan.

O. I. C. March, April and May pigs; the big,
 growthy kind that always makes good.
 LEMUEL NICHOLS, R. F. D. No. 2, Lawrence, Mich.

O. I. C's—Spring pigs, pairs and trios, not
 akin, from state fair winners.
 AVONDALE STOCK FARM, Wayne, Michigan.

O. I. C.—Choice spring boars of March and
 April farrow. Prices right.
 JOHN BERNER & SON, Grand Ledge, Michigan.

O. I. C's—Growthy spring boars. Satis-
 faction Guaranteed.
 A. R. GRAHAM, FLINT, MICHIGAN.

O. I. C. SPRING PIGS—Have some extra good
 pigs. H. W. MANN, Dansville, Michigan.

O. I. C. Swine—Also Holstein Bull calf sired by a 26-lb.
 son of Ypsilanti Sir Korndyke DeKol.
 Clover Leaf Stock Farm, R. No. 1, Monroe, Mich.

O. I. C. Swine—May I have the pleas-
 ure of receiving your
 order for a pair or trio, not akin, of April
 and May farrow. They are bred right. Satisfaction
 guaranteed. A. J. GORDEN, R. No. 2, Dorrr, Mich.

O. I. C's.—I have a fine lot of last OCT.
 Also last spring BOARS. Half mile west of Depot,
 Nashville, Michigan. OTTO B. SCHULZE.

O. I. C. Choice Gilts for Spring Farrow. Not bred.
 May pigs. Choice serviceable boars the long
 bodied kind. ALVIN V. HATT, Grass Lake, Mich.

Duroc Jersey Boars
 From Prize-Winning Stock.
 Write, or better still, come.

Brookwater Farm, Ann Arbor, Mich., R. F. D. 7.

Duroc Jerseys—25 choice boars, some fine March gilts
 and a few bred sows for October
 farrow. W. O. TAYLOR, Milan, Michigan.

Duroc Jerseys—For sale, of the heavy boned type.
 A few choice boars and fall pigs.
 M. A. BRAY, Okemos, Ingham Co., Michigan.

KORN-EL STOCK FARM now offer Duroc Jersey pigs
 of either sex at reasonable
 prices. E. R. CORNELL, Howell, Michigan.

DUROC JERSEYS, Bred Gilts For Sale.
 CAREY U. EDMONDS, Hastings, Michigan.

DUROC JERSEYS—Spring pigs of either sex at reason-
 able prices. Pairs not akin.
 W. J. BAUMAN, Burr Oak, Michigan.

DUROC JERSEYS—Spring pigs either sex at
 reasonable prices. S. C.
 STAHLMAN, Cherry Lawn Farm, R. 2, Shepherd, Mich.

DUROC JERSEYS—35 fancy boars and gilts of popular
 blood lines, good individual quality. Special prices for
 30 days. JOHN MCNICOLL, Sta. A. R. 4, Bay City, Michigan.

HAMPSHIRE Swine—Breeding stock of all ages
 from most popular strains. Write for breeding.
 Inspection invited. Floyd Myers, R. 9, Decatur, Ind.

POLAND CHINAS—Both Western and Home
 Bred. Either sex, all ages.
 Prices right. W. J. HAGELSHAW, Augusta, Mich.

POLAND CHINAS—Spring pigs either sex. From
 growthy stock and large litters.
 L. W. BARNES & SON, Byron, Michigan.

Poland Chinas, either sex, all ages. Something good
 at a low price. Bargains in boars ready for ser-
 vice. P. D. LONG, R. F. D. 8, Grand Rapids, Mich.

DUROC JERSEYS—Five sows one year old. one
 choice boar one year old, spring pigs either sex,
 also fall pigs. MYRON SEORTEN, Quimby, Mich.

Plum Creek Stock Farm now offer choice heavy boned Duroc
 Jersey Boars ready for service. Fall pigs, pairs not akin.
 Also Shropshire Rams. F. J. Drott, R. No. 1, Monaca, Mich.

THE FARMERS' HOG.—Butler's Big Boned Prolific
 Poland Chinas grow big, keep easy, mature early,
 ready for market at 6 months. Why? Because we've
 bred them that way for more than 20 years. 50 lb
 boned, long bodied, high class boars at farmers' prices.
 Buy one and make more money on your hogs. P. C.
 History Free. J. C. BUTLER, Portland, Michigan.

LARGE TYPE P. C.—Largest in Mich. Fall pigs all
 sold, order a spring pig sired
 by the largest boar in the U. S., weight 900 lbs., 24
 months old. Come and see. Expenses paid if not as
 represented. W. E. LIVINGSTON, Parma, Mich.

BIG TYPE POLAND CHINAS—Boar pig
 new homes. They are corker's and immune.
 WM. WAFFLE, Coldwater, Michigan.

Poland Chinas of the big type. March and April
 farrow. The kind that please our
 customers. A. A. WOOD & SON, Saline, Mich.

FOR SALE—Choice Poland China pigs, April farrow,
 either sex, one yearling boar. Come and make selection
 if convenient. A. C. Shinabargar, R. 1, Crystal, Mich

LARGE STYLE POLAND CHINA SPRING AND FALL
 L PIGS. Dairy Bred Shorthorn Bulls and Oxford
 Buck Lambs. Prices right. Robert Nye, Pierson, Mich.

FOR SALE—A choice bunch of March and April boar
 pigs, a few herd headers. Prices reasonable.
 Satisfaction guaranteed. R. W. Mills, Saline, Mich.

Mule Foot Bred sows, bred gilts and boar
 pigs, not related for sale. Satis-
 faction guaranteed. G. C. KREGLOW, Ada, Ohio

Yorkshire Swine—We have some nice May pigs, both
 sexes. Write for description and
 prices. OSTRANDER BROS., Morley, Michigan.

YORKSHIRES

The large, long-bodied, prolific kind. Gilts bred for
 September and October farrow. A choice lot of
 spring boars and gilts. Prices reasonable.
 W. C. COOK, R. 42, Ada, Michigan.

Lillie Farmstead Yorkshires
 Open gilts and gilts bred for September farrow.
 Spring pigs either sex, pairs and trios not akin.
 Satisfaction guaranteed.

COLON C. LILLIE, Coopersville, Michigan.



Get Faster Gains Have Healthier Stock

Feed SAL-VET 60 Days at My Risk

Stop Wasting Grain! Stop Losing Stock! Get Bigger Profits!

I want to prove to you, **AT MY RISK**, that SAL-VET, my great worm destroyer and stock conditioner, will work a wonderful change on your stock—your hogs, sheep, horses and cattle. I want to feed every animal on your farm for 60 days and let you see with your own eyes, what a money maker and a money saver SAL-VET is.

Here's My Open, Liberal Offer

Go to your dealer (show him this advertisement if you wish) and get enough SAL-VET to last your stock 60 days. Feed it according to directions, and if it does not rid them of the disease-breeding, profit-eating, stomach and intestinal worms—if it does not make them look better, gain faster on no more feed—if it does not stop your losses from these worms, the SAL-VET you get won't cost you a cent. Get it at your Dealer and save the freight. Every SAL-VET dealer is authorized to refund every penny paid for it on my 60-day offer, if it does not do all I claim. If there is no SAL-VET dealer in your town, fill out the coupon below—send no money;—I'll fill your order direct.

Read What Feeders Say:

"SAL-VET has given entire satisfaction. The pigs and cows to which I fed it, were doing very poorly, but in a month's time they all looked fine and sleek and have been gaining right along. Previously, I had used four or five different remedies as conditioners, but was never fully satisfied. I can recommend SAL-VET to anybody whose stock needs conditioning."—Frank Klein, Monroe, Mich.

"Have thoroughly tested your SAL-VET; I feed it to hogs and colts, and never had better results in my life. Many hogs in the neighborhood died of cholera. I have had no trouble here."—John H. Leyendecker, Route No. 63, Byron Center, Mich.

"Last year we lost nearly 10 per cent of our lambs from worms. This year we have been feeding SAL-VET and have not lost a single one."

D. A. Wheeler,
Shabona, Mich.

"I had a bunch of registered sheep that were dying. I commenced feeding SAL-VET to them, since which time I have lost only two. I also had about two thousand head of western sheep, to which the SAL-VET was fed. They all came through in good shape."—W. R. Hamlin, Hatton, Mich.

"My SAL-VET is all gone, and as common salt does not begin to take its place, I want you to send me another keg at once. I am sure that \$5.00 worth of SAL-VET saves me \$10.00 worth of feed; all of my sheep, cows and horses are doing remarkably well. My experience has been that SAL-VET and worms cannot dwell together."

E. A. Bontrager,
Fairview, Mich.



The Great
Worm
Destroyer

REG. U.S. PAT. OFF.

The Great
Live Stock
Conditioner

An effective medicated salt, containing just the right proportion of worm-destroying drugs, and tonic medicines that quickly put stock in healthy condition. Animals take to SAL-VET quite readily, but it can be mixed with the feed. There is no fuss, no bother, no dosing nor drenching—it can be placed where your animals have free access to it, and

They Doctor Themselves

You cannot afford to let your animals run down, nor take chances of loss, when I stand ready to prove on your own stock, at my risk, what it will do for you. **SEE YOUR DEALER TODAY.**

Don't Accept any Substitute

Don't let anyone induce you to try "Sal" this or "Sal" that, nor anything "just as good." Get original, genuine SAL-VET—the medicated salt that is endorsed by Agricultural Colleges and most prominent breeders and live stock authorities. It costs no more than substitutes, contains no antimony, is guaranteed to rid your stock of worms, or no pay. It is never sold by wagonmen or peddlers, but only by reputable dealers. If your dealer cannot supply you, fill out the coupon and send at once. Send no money.

Sidney R. Feil, Pres.

The S. R. Feil Co., Mfg. Chemists
Dept. MF Cleveland, Ohio

THE S. FEIL CO., Dept. MF 10-10 14 CLEVELAND, OHIO

Ship me enough SAL-VET to last my stock 60 days. I will pay the freight charges when it arrives, agree to report results promptly in 60 days and that at that time pay for it if it does what we claim. If it does not, you are to cancel the charge.

Name.....

P. O.....

Shipping Sta.....State.....

Number of Sheep.....Hogs.....

Cattle.....Horses.....

Send Coupon only if there be no dealer in your town.



Look For This Label

on all SAL-VET packages. Don't be deceived by imitations. Don't buy "Sal" this or "Sal" that, get the original genuine SAL-VET.

PRICES

10 pounds.....	\$.75
20 pounds.....	1.25
40 pounds.....	2.25
100 pounds.....	5.00
200 pounds.....	9.00
300 pounds.....	13.00
600 pounds.....	21.12

Never sold in bulk; only in Trade-Marked SAL-VET packages. 60 days' trial is based on 1 lb. of SAL-VET for each sheep or hog, and 4 lbs. for each horse or head of cattle, as near as we can come without breaking regular size packages.

