

# MICHIGAN FARMER

AND  
**LIVE STOCK**  
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## FARM NOTES.

### A Study of Cultural Methods.

The experiences in potato production which have been related thru the columns of the Michigan Farmer in recent issues seem to be promoting considerable interest among the many readers who are interested in potatoes as a special cash crop; and properly so, since there is no doubt but that the average yield of potatoes in Michigan could be very largely increased by the adoption of better cultural methods. There is need of a thorough study of the requirements of our soils in the way of fertilizers. Where plenty of stable manure is available, it is, of course, possible to succeed better without such a study than where this is not the case, but even then it may pay even better to make it a study for the reason that supplementary fertilization often pays best upon the most fertile ground and it is a well known fact that commercial fertilizers give better results when properly applied in connection with stable manure than where used alone. Then again, in the matter of varieties and in cultivation there is not a little chance for the improvement of methods by a line of experimentation which will give us a

and find out for themselves the methods best adapted to their own conditions. It is not too early to plan such experiments for next summer and we trust that there may be many reports from those who have concluded to so experiment during the coming season.

### Hedge Plants for Fence Posts.

Please give comparative value of osage orange and black locust for fence posts. Also comparative cost of growing them. Will either do well on sand and gravel soil, within four feet of lake water level, (permanent water)? Would it pay to plant a row of willows where a fence was permanently needed thru a marsh, and fasten wire to them? If so, how should wire be fastened?

Branch Co.

C. E.

It is probable that either osage orange or locust would thrive on land of the character mentioned in this inquiry. The writer has seen locusts do very well on just such land and as close to the permanent water level as the distance mentioned. Osage orange has not been grown in this state for fence post purposes, so it would be difficult to compare it with locust for the purpose. In the west, however, it has a good reputation as a fence post timber, and has the advantage of being less susceptible to insect pests than locust, which is sometimes badly damaged by borers. Locust is, however, a

me to sow it in drills and then go over the same drill rows sowing the seed? Where one can not get a catch of clover on sandy land does it pay to turn under rye, and what effect will it have on the soil? What do you think of turning under turnips sown last summer?

G. H. T.

If there was a good stand of alfalfa on this field, and you desire to grow another crop of potatoes and seed it again, the better plan, in the writer's opinion, would be to fertilize it liberally with commercial fertilizer and plant to potatoes again this spring, then seed to alfalfa again next year; altho it is not generally a good plan to plant potatoes on the same field in successive years for the reason that scab and other fungous diseases are more likely to trouble them and the fertility of the soil can be more easily maintained with a rotation of crops. But if you put the field into cowpeas you could not turn them down for potatoes this year, but would be obliged to devote the season to growing this crop for green manure as a preparation for another crop of potatoes next year. If a liberal amount of fertilizer is used, say from 800 to 1,000 lbs. per acre, the better way would be to sow it broadcast. If a small amount is used probably better results would be secured by using it in the hill or drill with the po-

depleted in humus and where the rye can be used as a catch crop at a time when some more valuable crop from a fertilizing standpoint could not be used. It will add nothing to the soil which it does not take from it, but it will save and fix in the soil available plant food, protect the land over winter and furnish some vegetable matter when plowed down the following spring. The same facts will apply to the use of turnips for a similar purpose. Leguminous crops are more profitable for use as green manure where conditions favor their growth.

### Choosing a Farm.

Being a subscriber to your paper, thru its columns will you give me enlightenment upon the essential points in choosing a general purpose farm? I am a registered pharmacist and am holding a position as such now, but the general commercial conditions of a modern pharmacy compels me to seek outside employment and, while I am not wholly crude in farm knowledge yet I will most gratefully receive a few wholesome "tips" from The Farmer.

Lenawee Co.

SUBSCRIBER.

One could write a book upon this subject. It is quite impossible to answer it in an adequate manner in the space available for reply to an inquiry of this kind. One of the first points to be considered is, of course, the character of the soil.



Baling Hay for Market on the Farm of Wesley Schlechter, of Sanilac County, where Hay is One of the Important Cash Crops.

more positive knowledge of just what are the best methods under the local soil conditions with which we have to deal. Then there is the question of the proper method of planting, harvesting, storing and marketing for the most economical results. This is an age of specialized machinery, much of which may be profitably employed in the growing of the potato crop. This exchange of ideas by growers who have met with varied degrees of success, and who have experimented both successfully and otherwise with a view to getting a more positive knowledge of the requirements of this crop under their conditions, can not help but prove highly beneficial to that large class of Michigan Farmer readers who are interested in this important Michigan product. However, the greatest good which a discussion of this kind can do is to promote a general desire on the part of readers to experiment a little on their own account

and durable timber for post purposes and as it does better in the shade of some other timber it might be profitable to plant these two varieties together. Willows are sometimes planted thru marshes where a fence is needed and the fence attached directly to them. If good size, willow sticks are driven in the marshy soil at the distance apart the trees are desired, the fence can be attached to them at once, either with staples or wires, as desired, and few if any of them will fail to grow.

### Potato Questions—Fertilizing Sandy Soil.

I have a small field that I plowed last summer. It had been in alfalfa for three seasons, and I had a good crop of late potatoes from it. Would like to raise potatoes on it again. Would it pay me to put this field to cowpeas and turn them under for potatoes? Which is the best way to treat seed potatoes for scab? How would you cut large seed potatoes? I would like to use fertilizer to some extent this year. Would you sow it broadcast for root crops or would you advise

tatoes. Probably the most profitable way to handle this field would be to fit and sow it to alfalfa again this spring, planting potatoes elsewhere; but if potatoes are grown upon it this year, it could be sown to alfalfa next year with a prospect of getting a good stand, as the alfalfa bacteria is doubtless present in the soil. The above advice would apply with equal force regarding the use of fertilizer for other root crops.

The best treatment for scab in potatoes, all things considered, is the formaldehyde treatment, using one pound of the commercial product to 30 gallons of water, soaking the seed for about one and one-half hours before cutting. Opinions differ as to how large potatoes should be cut for seed, the most common method being to cut them to two eyes on each piece. Sowing rye on sandy land as a crop for green manure will prove profitable in some cases where the soil is badly

and its adaptability for the branch of farming which it is desired to follow. Probably for general purposes farming a medium heavy loam is preferable, yet that term is not very expressive and does not define a soil sufficiently well to be of much value to one seeking information, as is the inquirer. Then there is the question of location which is a large factor in fixing the price or, in other words, of determining the desirability of any farm from the standpoint of making it a home. Then there is the lay of the land to be considered, whether too level or too hilly, or just sufficiently rolling to give good drainage, which is, of course, the most desirable condition. Then there are the improvements to be considered since it is generally cheaper to buy a farm with good buildings, than it is to build them oneself. Also there is the question of how well the natural fertility of the soil has been maintained under the system



of farming which has been practiced upon the land in previous years. In fact, there are so many factors entering into a proposition of this kind that it is almost impossible to lay down any general principles to guide the purchaser not experienced in judging them. Generally speaking, however, as in the purchase of anything, it generally pays to buy "good goods" in purchasing a farm, as it is ordinarily the more profitable to buy a farm in which the conditions of soil, location, environment and improvement are such as will prove a satisfaction to the purchaser, than it is to buy one in which these factors or any of them are unsatisfactory, even at a much smaller price.

There is no place in which good farms can be purchased for less money than right here in Michigan, a condition which will probably not prevail to the same extent for many years, since the farmers in our nearby sister states are finding this out, and are coming to Michigan in increasing numbers each year and investing in Michigan farms after selling their land in their old locations for two or three times the cost of good farms in this state.

#### THE BUSINESS SIDE OF FARMING.

##### Trade Knowledge for the Farmer.

The technicalities of farming are not well understood by the urban resident who thinks anybody can farm, and by no means as well understood by the farmer in general as they should be. In the matter of wool, which is generally supposed to be simply wool, there have been but few men in Michigan who understood wool and woolsens, as did Ex-Gov. John T. Rich. The microscopic examination of wools is as interesting as the study of bacteria or living organisms. Combing wools, carpet wools, delaines, etc. An expert wool handler can detect the fleece of the lamb, the aged ewe and the percentage of noils in a fleece.

If the farmer could follow his flock's fleeces thru the scouring process he would see the shrinkage or, if carrying cockle burrs, would notice the wool go thru the carbonizing process, and then, finally, as it was ready to spin, see the noils, or broken, short fibres screened out or off, much as a farmer cleans his wheat, he would appreciate more fully his duties and opportunities as a flockmaster. The noils are spun and woven, usually into underwear, or appear in the "all-wool" garments of Cohen or Einstein. Noils are the broken, short pieces of wool in your work coat which, when brot back home, occurred because the flock was not well fed at some period, and the fleece was the covering that hid the sheep's scanty grain ration.

It is these losses that occur on the farm that are remedial in part by the farmer, altho only partially, for trade classifications are too much inclined to bunch consignments. It is in appreciation of these facts of farming that gives opportunity to advance the standard of farm products.

The United States government has expert tobacco testers to determine the grades of tobacco that are up to standard for use among the jacksies on shipboard and also there are official tea tasters employed similarly.

The responsibility of the farmer in the matter of clothing and feeding the world should give dignity to his business and the compensation be adequate to enable him to ascertain the best grade of production. A business man remarked that it was not only the duty of a salesman to sell but to ascertain what the trade demanded.

I visited with a young Navajo Indian who had been in the Carlisle school, but when he returned to his tepee became a blanket Indian. There was a touch of humor and pathos in his description of his telling how the older Indians "no savvy" (did not understand) the need of doing things any different than they had. "If they had been to Carlisle then they would 'savvy.'" The uncleaned native wool made into the serviceable, illsmelling Navajo blankets would, if cleansed, have been equally serviceable and would not have been so offensive. The Navajo ram lambs are never trimmed and the flock seemed to be quite equally divided between rams and ewes and the Carlisle youth still insisted that they "no savvy" when any change was proposed. His tribe were stand-patters in any way relating to any change of standards and the young Indian gave it up. My old friend, the lumberman, said it paid good wages for a man to get away from home occasionally to see how other folks worked. It is the ideas of the individual that are worked

over into the expression of the masses that becomes a custom. Mental power is quite evenly distributed; one man with another, the difference is small. Opportunity and will power are the more dominating factors in the divergencies of mankind. The necessities of the city business man in seeing new things and acquiring new ideas, call for less exertion on his part than do those of the farmer, because the farmer is compelled to act. The Farmer Should Not be "Tied to the Soil."

The weakness of the farmer is in his personal isolation. Ignorance is a state of ignoring, not seeing, the need of mingling with his fellow man and knowing what is going on and seems to require a shock of some description. City business men have organizations called Business Men's Associations, Commercial Leagues, etc., the idea being mutually beneficial to their business ventures. The city man regards the time as well spent and accomplishes something. Farmers, when they do meet regard it as "playing hooky," (really ought not to have taken the time), and accomplish little because they regard individual action as the more important. "Short circuiting" is an electrical expression, when the current is connected at some point with the return wire before the complete circuit is made. And who among us has not done more or less of "short circuiting." The ability or genuine mental power exists among the farmers. The opportunity is in neighborhood action. A very efficient presiding officer at an institute remarked that until he mingled with farmers' bodies he could in no wise express his ideas.

The statics of farming is a subject much easier than the dynamics of the same. A star is always in one place and just twinkles, while a planet moves and does not twinkle is the elementary definition given by a beginner in astronomy. In like manner the business farmer must be more of a planet. He must have his orbit but nevertheless must not remain fixed in one place. The professional class from Europe, including engineers, chemists, etc., have regarded the farmer in their own land with a measure of contempt, a peasant tied to the soil. It is important that the business farmer be not tied to the soil. It is of especial importance that the farmer, in this era of advanced prices, modern machinery and improved utilities, maintain this vantage ground firmly. Horace Mann, the educator, said where anything is growing one formation is worth a thousand reformations. The appearance of the farm and farmer, the expression of his ideas, the publicity of his standing. His ability to use the tools and machinery of business, like bank checks and bank credits, are important features. His ability to meet the demands of the market in supplying quality as well as quantity, are also to be considered. And, in addition, the business farmer must firmly adhere to the policy of adequate price to support modern business investigations and proper production. President Roosevelt conceived and executed the great naval project of displaying the power of the United States in all quarters of the globe. The theory was that it was worth all it cost as an exhibition of power. The same idea holds good among farmers in mutually beneficial associations and not to regard themselves as the under dog, whining for sympathy.

Shiawassee Co. JAS. N. McBRIDE.

#### THE RIGHT ADDRESS.

In our issue of January 22, on page 3, appeared an advertisement of the Johnston Harvester Company, of Batavia, N. Y., referring to this company's line of disk harrows for the general farmer, the fruit grower and orchardist, in which an error was made in the box number to which communications for this company should be addressed. The box number as it appeared in the advertisement was 1054. It should have been Box 105-H, Batavia, N. Y. In writing this company for circular matter describing their large line of disk harrows, readers should address them as above, mentioning the Michigan Farmer.

#### FREE BOOK ABOUT CANCER.

The Leach Sanatorium, of Indianapolis, Ind., has published a book on cancer, which gives interesting facts about the cause of cancer; tells what to do in case of pain, bleeding, odor, etc., instructs in the care of the patient, and is in fact a valuable guide in the management of any case. The book is sent free to those interested who write for it, mentioning this paper.



## Johnston

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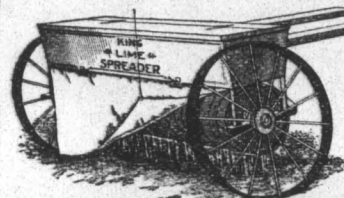
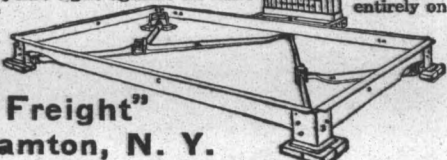
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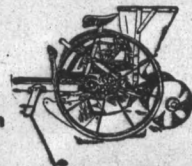
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## A WATER SYSTEM FOR THE HOME.

I am thinking of putting a running water system in my house this spring, and would be thankful for any advice thru The Farmer. I have a 15 ft. stone well about five rods from the house. The house is on a hill with a fall of  $3\frac{1}{2}$  ft. to top of well, and I want sufficient pressure to send water to second story or to spray the lawn in summer. What would be best, a windmill or a gasoline engine, or is there any way open without either? Do you think the compressed air system all right? That is, I would put a steel tank in my basement and, by pumping water into this tank, the air in this tank being elastic is compressed into the upper half of the tank as the water enters, and the compressed air then gives a pressure which forces the water thru the pipes all over the house, the garden and barn.

Saginaw Co.

V. MAHONEY.

There is no system so well suited to providing a constant supply of water in the farm home as the air pressure type described in this inquiry. This is true for several reasons. First, a greater pressure can be provided than by the old method of putting a tank in the attic from which the water could be drawn for the various domestic purposes. Then there was always the danger that the tank would leak and ruin the walls in the rooms beneath it. The air pressure system will provide every advantage which would be secured by a tank on a high tower by means less expensive and without danger of the tank or water pipes freezing and the water cannot only be delivered to the second story of the house, but may be thrown clear over it in case of fire, but a system of this kind furnishes better pressure for the sprinkling of lawns than any other. A gasoline engine is the most satisfactory source of power for pumping the pressure tank full of water since it is more dependable than the windmill for this purpose altho with a good windmill and the right kind of a pump fair results can be secured. This new system brings within reach of the farm home the conveniences which have been difficult, if not impossible to secure before its invention, and is well worthy of the consideration of all who think of installing a water system in the country.

## GOOD ROADS VS. WIDE TIRES.

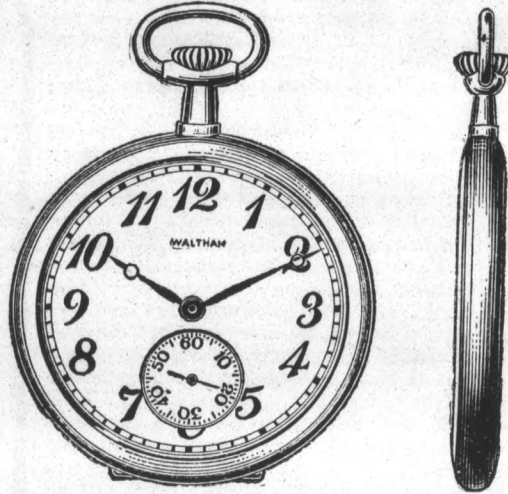
The improvement of our highways has not only become a matter of general interest to the average citizen, but is argued upon every hand as a most profitable investment for the farmers of the country, who would thereby make a great saving in the drawing of their produce to market. Unquestionably the future will see better roads in Michigan and unquestionably this will prove a benefit to Michigan farmers as a class. But no one means which can be taken to bring about that desirable improvement would prove more efficacious than the general use of wide tired wagons. Some modern tests also seem to show that, aside from improving the roads, the general use of wide tired wagons would also prove a large saving to the farmers as a class. Tests made by the Missouri Experiment Station showed that with an ordinary narrow tired wagon, the average pull per ton on good roads was 86 pounds, while the draft of the same road on macadam roads was 71 pounds. The use of a wagon with six-inch tires on the same earth roads reduced the draft of the load to 61 pounds, thus proving an even greater saving in horse power than was effected by the substitution of macadam for a good earth road. This is contrary to public opinion, which is strongly prejudiced toward the view that the narrow tired wagon draws easier than the wide tired wagon with the same load upon the average country road. Undoubtedly this prejudice is well founded so long as the narrow tired wagons are used to an extent which cuts the roads up into ruts and thus increases the draft of the wider tires. But with the general use of the wide tires on the road, it is probable that there would be an actual saving in the power required to move loads upon even the average country road. Aside from this, the smaller wheels which are usually used on wide tired wagons, makes a great saving in labor in the lifting or pitching of the load on the wagon. It is the last few inches or feet of the lift that is hardest, with the lower wagon which is in more common use upon our fields than ever before this obstacle is overcome.

Colon C. Lillie, Cooperville, Mich., who has been advertising Yorkshire hogs, writes: "There is a splendid demand for hogs for breeding purposes this fall."

Enclosed find remittance for your excellent editorial. I find I cannot keep house without the Michigan Farmer.—C. B. Hoadley, Shelby, Mich.

## WALTHAM WATCHES

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Each man winds up and rectifies his own."

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the most highly perfected machine on the market, adds to its value.

Increased accuracy secured by the famous Deere **edge-selection drop**, means anywhere from ten to fifteen bushels per acre over the old style of machine. Repeated tests have shown the above increase in favor of really accurate planting.

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**Fertilizer attachment** that distributes either in hill or drill. But stub runner or disc openers may be had on special order.

Illustration here shows the regular runner, but stub runner or disc openers may be had on special order. In fact, the Deere No. 9 is strictly up to date in all real improvements.

Deere No. 9 Edge-Drop Planter  
Highest Accuracy in DropDeere & Mansur Co.  
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Don't sell your hogs for 6 to 8 cents and buy poorly smoked meat from Meat Trust at 20 to 30 cents. Butcher your hogs, salt and smoke the meat yourself, sell the hams and bacon not needed for your use and make 3 or 4 times what you do now, besides having better meat. The extra profit will pay for what you use. No smokehouse necessary.

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## LIVE STOCK

### BREEDERS' PROBLEMS.

#### Early vs. Late Shearing.

I would like to know what to do with my flock of two-year-old Shropshire ewes. I bot them last November and they are quite badly infested with ticks, and some of them are losing their wool. I am feeding bean pods twice a day, cornstalks once a day and they have the run of an oat straw stack on nice days. I have a basement barn for them to run in. I might add that I expect them to begin lambing next month. Would it do to shear them now or would you wait until after they lamb?

Genesee Co.

W. EDGCOMBE.

Where one has given the flock plenty of exercise and plenty of air during the winter, early shearing can be safely practiced with a good warm basement for the sheep to be confined in. A good many flock owners make a practice of shearing their breeding flock before the lambing season and like the plan. This plan has some advantages in that the sheep must be kept housed rather closely during the lambing season and will sweat considerably if their fleeces are not removed. Where there are a good many ticks on the sheep, this is an additional reason for shearing them, and where some are losing their wool this is still another argument for early shearing, under the conditions named in this inquiry. It would be possible to get rid of a good many of the ticks without shearing if some of the standard sheep dips are mixed up in the proper proportion and applied by laying the sheep on its back, parting the wool on the belly and pouring the dip from a pitcher, or preferably a teapot with a spout, using just sufficient so that it will penetrate the fleece next to the body well around the sheep without saturating the wool. While this will get rid of a good many of the ticks, yet there will be a good many left which will attack the lambs and, from this standpoint, early shearing will be preferable. As above noted, with a good basement in which to keep them, the flock can be kept reasonably comfortable even in severe weather if shorn early and, with careful handling by the shearers, there is not very much danger of injuring the ewes or the unborn lambs. There are a good many who maintain that it is a cruel practice to shear early, but it is a debatable question if the sheep shorn at this season, then kept closely housed in a warm basement stable will suffer any more than sheep shorn at the ordinary season of the year and turned out to pasture in the cold winds which nearly always prevail during the spring season. Under the condition named, the writer would be inclined to adopt the practice of early shearing but, if this is to be done, or in any event, the stable should be well cleaned and plenty of fresh bedding should be used in order that there may be none of the fumes of fermenting manure in the stable and there should be some provision made for ventilating the stable so that a reasonable supply of fresh air can be furnished without lowering the temperature of the stable more than is actually necessary to bring about the desired result. A few hens put in the stable with the sheep just as they are sheared will assist materially in getting rid of the ticks which may be left on them after shearing. They have sharp eyes and a taste for such insects, and will be seen looking around carefully for the ticks and "harvesting" them closely. The lambs should be dipped as soon as warm weather comes to finish up the job, as any ticks that escape will swarm to them, as their tender hides afford better pasture for the parasites.

But while many flock owners follow this practice of early shearing with good results, others do not favor it, and unless one has the best of quarters for the ewes it is a practice not to be commended.

#### SHOAT FEEDING EXPERIMENTS.

The New Hampshire Experiment Station recently conducted some feeding experiments with shoats. Fifteen of the shoats were divided into five lots and fed for 35 days. On soaked shelled corn there was a gain of 82.2 pounds, at a cost of 7.3 cents per pound; on shelled corn and skim-milk a gain of 141 pounds, at a cost of 7.4 cents per pound; on shelled corn and middlings a gain of 99.3 pounds, at a cost of 8.9 cents per pound; on shelled corn, middlings and skim-milk a gain of 129 pounds at a cost of 8.2 cents per pound; and on shelled corn, corn middlings and molasses, a gain of 104.8 pounds, at a cost of 8.89 cents per pound.

### ABORTION AMONG EWES.

Years of experience has taught the good shepherd that what he sows, that he shall also reap. Abortion among ewes is no uncommon disease at this time of the year when nearing the lambing period. Abortion differs somewhat from premature birth and the two are quite frequently confused. The two differ in that abortion is a disease while premature birth may result from an accident which injures the developing of the foetus and shortens its period of growth. Abortion generally occurs any time up to three or four weeks before the full time of mature birth and before the foetus is ready to be separated from the parent. It is very seldom that abortion brings forth young that possess sufficient maturity to live any length of time, yet there are a few instances where animals have expelled their young quite immature and the latter have sustained life for some time. Abortion is far more serious, both from the standpoint of effect upon the parent and influence upon the flock, than premature birth and should be properly attended to. While there are few instances where contagious abortion has infested flocks yet there is great danger of serious loss if animals attacked are not immediately cared for.

There are various traceable causes of abortion among ewes although there may not exist any apparent symptoms of attack until the foetus has been expelled. I have knowledge of several instances of ewes aborting that apparently four hours previous gave no symptoms of distress. This is indeed one of the serious features of the disease as it makes it quite impossible to administer any form of relief. Overfeeding on coarse, indigestible roughage is probably one of the most common causes of abortion among ewes. The stomach is very closely connected with the womb and there exists a very strong sympathetic relationship between these two organs and any disturbance of the former is apt to influence the development of the foetus.

Seasons also have a decided influence on causing abortion. Wet, cold weather, accompanied by frosty nights and warm days is very trying on the health of pregnant ewes. In case the flock is exposed to such variable climatic conditions the fleece becomes mores or less saturated with dampness that influences the temperature of the body by keeping it below normal. Ewes that are carrying unborn young should be carefully protected from extreme variable changes.

Sudden fright, such as a dog chasing the sheep is a very common cause of abortion among pregnant ewes. In such instances the nervous system which is very closely connected with the growing foetus becomes violently exercised. Every precaution should be taken by flockowners who live in localities where dogs are kept in any number to protect their sheep from being chased or frightened by such animals. Another cause of abortion and one that every flockmaster should study with the greatest of care is the excessive use of the ram. If the ram has been allowed to serve too many ewes, or if he was too young for service and produced weak male germs then it is evident the trouble lies in exercising proper judgment in handling the ram during the period of coupling. If the foetus is weak and dies before fully developed and expelled it can in numerous instances be traced to defective constitution in the ram at the time of copulation.

In view of the fact that there does not exist any noticeable symptoms previous to abortion among ewes the only treatment that can be administered is to prevent the trouble. Ewes that have aborted should, of course, be carefully nourished and cared for until they regain normal health. If the ewes are not highly valued it is advisable to dispose of them as soon as possible as they are very apt to repeat the act unless the exact cause can be determined and removed. In case the ewe that has aborted has not properly "cleaned" she should be immediately operated upon and the afterbirth taken away. Every precaution should be taken in the performance of this operation that the hands and instruments are properly sterilized.

Shiawassee Co.

LEO C. REYNOLDS.

#### After Many Years.

The Michigan Farmer is one of the first papers I can remember in our home (before the war). I have taken it many years myself and think it ought to be in the home of every Michigan farmer. We have one of your sewing machines, which we have had 21 years. It has done the work of a large family and never cost one cent except for oil and needles and is good yet.—C. A. Bullock.

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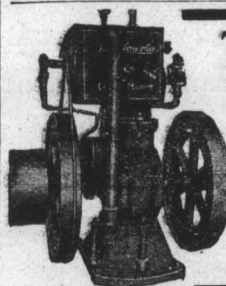
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"UNO" collars have a heavy facing of Young's Uno self-conforming mixture (a yielding, pliable facing that fits itself to the shoulder), backed by selected long rye straw—have double strength throats giving double strength where common collars are weak—heavy, smooth sole leather tops—solid serviceable rims—all parts made of pure bark tanned leather cut from best part of the hide—all shapes and sizes, \$3.75 to \$5.00 each.

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**PERCHERON STALLIONS.** One 4 and one 2 years, record-eds. ad. Shorthorn cattle, both sexes, reasonable prices. T. M. Southworth & Son, R. 13, Allen, Mich.

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### BABY BEEF PRODUCTION DEFENDED.

I regret that references made to Michigan Experiment Station Bulletin Number 257, by Mr. Jas. N. McBride, in the January 29th issue of the Michigan Farmer, are likely to mislead your readers because of partial quotation of facts and figures.

Bulletin 257 entitled, "Rearing Calves on Skim-milk and Supplementary Feed," contains a report of the records of sixty-three pail-fed calves from birth to twelve months of age, including feed consumed, feed combinations, weights and gains and cost, not only for the year, but for each quarter as well.

Minimum cost prices could not be expected under the circumstances, as there was variance in breed type, and also in purpose and methods of feeding. The animals are reported in seven distinct lots, each one carefully described. The seventh lot was omitted from the general averages as this was a check lot fed whole milk for twelve weeks to get comparative data against the skim-milk.

Your correspondent quotes the list of feeds and prices and criticizes them as being 25 per cent too low. We do not object so much to this but wish to explain that the data given was collected during the four years preceding June, 1909, when prices were at a somewhat lower level than at present. In series of experiments continuing for a number of years, it is desirable to establish and hold to a scale of prices, in order to make comparisons possible. Even now, with the exception of two or three items, the prices quoted are within a possible profitable range of production on the farm, as stated on page three. The range of prices quoted in this bulletin is from thirty to fifty per cent higher than those charged by some of the western institu-

tions. Relative to this third lot the Klink Packing Company made the following statement, viz.: "We are pleased to state that this is positively the best load of cattle we have killed for a long time and your institution certainly deserves a great deal of credit for the good results shown."

In consideration of the data given in the bulletin relative to the disposal of thirty of these calves, your correspondent was manifestly unfair in quoting the Detroit market of January 8, 1910, placing \$3.50 and \$4.00 valuations against these animals. Had the selling data been withheld in the bulletin and the public left to make its own inferences relative to values, then it would have been an entirely different matter. A somewhat higher cost of production renders the bulletin all the more valuable in view of the safe and conservative complexion it gives things. It is true that no account is taken of labor, but neither are the animals credited with the value of the manure remaining.

We invite critical inspection of Bulletin 257. The complete data relative to the baby beef records is now being prepared for print. Fair criticism is always to be desired but unfair criticism directed in shafts pointed with scathing sarcasm combined with incomplete quotation and debauchery of facts is calculated to mislead and do harm.

Mich. Agl. College. R. S. SHAW.

### NUMBER AND VALUE OF FARM ANIMALS.

The Crop Reporting Board of the Bureau of Statistics of the United States Department of Agriculture, estimates, from reports of correspondents and agents of the Bureau, the numbers and values of farm animals on farms and ranges in the United States on January 1, 1910, as follows:

Farm Animals.	Per Cent Compared with Jan. 1, 1909.	Numbers.	Average Price Per Head.	Total Value.
Horses .....	101.9	21,040,000	\$108.19	\$2,276,363,000
Horses .....	100.9	20,640,000	95.64	1,974,052,000
Horses, Average .....	1899-1908		66.17	
Mules .....	101.7	4,123,000	119.84	494,095,000
Mules .....	100.9	4,053,000	107.84	437,082,000
Mules, Average .....	1899-1908		78.69	
Milch Cows .....	100.4	21,801,000	35.79	780,308,000
Milch Cows .....	100.9	21,720,000	32.36	702,945,000
Milch Cows, Average .....	1899-1908		29.85	
Other Cattle .....	95.7	47,279,000	19.41	917,453,000
Other Cattle .....	100.9	49,379,000	17.49	863,754,000
Other Cattle, Average .....	1899-1908		18.62	
Sheep .....	102.0	57,216,000	4.08	233,664,000
Sheep .....	100.9	56,084,000	3.43	192,632,000
Sheep, Average .....	1899-1908		3.06	
Swine .....	88.2	47,782,000	9.14	436,603,000
Swine .....	100.9	54,147,000	6.55	354,794,000
Swine, Average .....	1899-1908		6.24	

tions engaged in somewhat similar work when prices were at a lower level.

The average cost of production for fifty-seven calves at twelve months of age is given at \$4.27 per cwt. and attention is directed in the bulletin to the fact that it is difficult to produce animals as cheaply in experimental feeding owing to the somewhat unnatural environment and restriction involved in carrying out detailed methods involved in getting exact facts and figures. But even under the conditions referred to we are prepared to defend the financial transactions of the experiment.

Part of the sixty-three calves were being pushed along for the block to be disposed of as baby beefes at about eighteen months of age and near 1,000 lbs. weight. As a result they were in better condition and were worth more than ordinary feeders. The following statement appears on page three of the bulletin, viz.: "While these reports cease at the feeder age, most of the young animals, except dairy heifers, were in a marketable condition and within a range of moderate profit had they been actually placed on the market." Michigan beef producers do not hesitate to pay \$4.25 per cwt. for good feeders and these belonged in the prime feeder class.

Lots 1, 2 and 3 were marketed during consecutive years when about eighteen months of age and when a little less than 1,000 lbs. live weight. In every case they were sold on the place. Lot 1 was sold in May, 1907, for \$5.00 per cwt., (See page 5); lot 2 was sold May, 1908, for \$5.75 per cwt., (See page 8), and lot 3 was sold May, 1909, for \$6.15 per cwt., (See page 11). The first lot was killed in Lansing; the second was shipped to Detroit by a drover and sold there at \$6.85 per cwt., and the third lot was shipped to Buffalo and the valuation placed on them by the Klink Packing Company was \$7.25 per cwt. in Buffalo stock yards. They were taken off the drover's hands by the killer before being

shipped. Compared with Jan. 1, 1909, the following changes are indicated: Horses have increased 400,000; mules increased 70,000; milch cows increased 81,000; other cattle decreased 2,100,000; sheep increased 1,132,000; swine decreased 6,365,000.

In average value per head, horses increased \$12.55; mules increased \$12.00; milch cows increased \$3.43; other cattle increased \$1.92; sheep increased \$0.65; swine increased \$2.59.

In total value, horses increased \$302,311,000; mules increased \$57,013,000; milch cows increased \$77,863,000; other cattle increased \$53,699,000; sheep increased \$41,032,000; swine increased \$81,809,000.

The total value of all animals enumerated above on Jan. 1, 1910, was \$5,138,486,000, as compared with \$4,525,259,000 on Jan. 1, 1909, an increase of \$613,227,000 or 13.6 per cent.

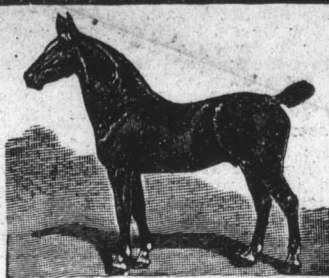
### LIVE STOCK NOTES.

H. L. Barnett, of Butte county, South Dakota, says that sheep growers around there are better supplied with breeding ewes than they have been for years. He states that a neighbor of his owns 50,000 head of breeding ewes on the winter range, and the important practice of culling out and marketing the poorer ewes in the autumn is becoming more widespread each year. He estimates that there are somewhere around 75,000 head of lambs on hay feed, but only a small part of them will be marketed, as practically all of them will be held over until next fall. Mr. Barnett adds that there has been no suffering in that region for want of feed on account of the recent severe winter weather, and he does not believe that there is a single stockman who has experienced any serious losses. It has been very cold, but the snowfall was light, and sheep and cattle have had little trouble getting down to the grass.

Sheepmen in Oregon have been keeping the sore mouth among their flocks in check by using lard and turpentine and going thru the flocks every morning and catching every one that is infected.

Live stock shippers say it has been almost impossible to get cars in which to forward stock to market this winter. In numerous instances it was two to three weeks after orders were sent in before cars were furnished.

A canvass of the farmers in the corn belt made by a Chicago live stock commission house indicates that the production of swine this year will be greatly increased, but it will be fully a year before the market derives any benefit from the increase.



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As a HUMAN REMEDY for Rheumatism, Sprains, Sore Throat, etc., it is invaluable. Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address THE LAWRENCE-WILLIAMS COMPANY, Cleveland, Ohio.

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Next large importation stallions and mares here FEBRUARY 10th, which, added to our present stock, offers intending purchasers the finest collection in America. If you want the best horses, horses with bone, quality, size, action and best breeding, stallions or mares; if you want fair and liberal treatment; if you want lowest prices consistent with good merchandise, visit Oaklawn. Catalog shows the place and the horses. W. S., J. B. & B. Dunham, Wayne, Ill.

## 100 Percheron Stallions 100 and Mares

Imported and pure bred registered Stallions from.....\$400 to \$1200. Mares from.....\$250 to \$600.

Write for Art Blotter. **BURTON & CO., Kenton, Ohio.**

**FOR SALE HORSES**—Auction Sale of Horses every Friday at 10 A. M. Private Sales daily. A number of draft and farm horses always on hand including some city mares a little pavement sore suitable for farm work. All horses sold are as represented or money refunded. Jos. Geron, Horse Market, 475 Gratiot Ave., Detroit, Mich.



Numerous consignments of hogs for the Chicago market that were kept at home for a few weeks, much against the wishes of their owners, on account of not being able to get cars, arrived much fatter than when their owners had decided to ship, and they sold accordingly better, the average quality of the receipts being the best seen this season.

There is a steady demand in the Chicago horse market for farm chunks, mares much preferred, as they can be used for breeders, as well as for ordinary farm work, and 1,200 to 1,400-lb. chunks for rural delivery have been selling at \$130 to \$175 per head, a few choice chunks going as high as \$200.

Cattle buyers in the Chicago market are turning their attention mainly to short-fed lots that do not cost too much. The popular demand is for cheap cuts of beef, and it does not take a great many choice, heavy beefs to satisfy the present requirements of the trade. Fat cows and heifers are in very good demand at their great reduction in prices, and there is usually a good call for light veal calves at good prices. Bologna bulls have had quite a fall in prices.

Feed continues to sell unusually high, corn bringing around 60c per bushel on many farms in the central west, and hay also sells extremely high. Dear feed is one of the main causes for the marketing of so many short-fed cattle. At the same time choice feeding cattle sell at high prices in the Chicago market, being relatively higher than pretty fair beef cattle. Ohio has been buying many of the better class of feeders of late.

The "increased cost of living" for horses is cited as one of the reasons for nearly 70 per cent advance in suburban express rates out of Chicago. It is claimed that since 1900 the average expense of keeping a horse for one month has advanced from \$13 to \$19. It is also asserted that the average cost of horses has risen from \$184 to \$193 per head, and that employees' wages have risen about 10 per cent. Horse feed has advanced materially, and is just now unusually dear. Hay is away up, the best timothy wholesaling in Chicago at \$20 per ton recently, and the best Kansas and Oklahoma prairie at \$15.50.

The large increase in stocks of provisions usually witnessed during the winter months at leading western storage points is not taking place this season, owing to the unusually light marketings of hogs, the consumption of fresh pork being large enough, despite extremely high prices, to use up a good share of the swine. On February 1 Chicago's stocks of provisions were only 75,601,109 lbs., compared with 67,304,664 lbs. a month earlier and 146,523,962 lbs. a year ago. There has been a large investment demand in the Chicago market recently, and sharp rallies have followed earlier big breaks in values.

The N. K. Fairbank Company estimates the world's stock of lard on February 1 at 114,641 tierces, compared with 110,966 tierces a month earlier and 257,973 tierces a year ago. The increase during January was only 3,675 tierces, compared with 46,732 tierces a year ago and 102,663 tierces two years ago.

The packers are credited with buying lard and ribs freely thru brokers on the Chicago Board of Trade. Of late there has been a good cash trade, and it is evident that the provision men are convinced that the shortage in hogs is a reality and that the legitimate situation will more than over balance the effect of the anti-high prices agitation and the meat boycott. Hogs are coming to market in fine condition and are in better demand for packing.

J. A. Shaw of Illinois, who consigned nearly 1,000 horses to the Chicago market last year, says he does not know where he can duplicate his shipments this year. While the farmers in his section are increasing their horse breeding operations, the demand is running ahead of the supply, leaving fewer horses on sale in farming districts than a year ago.

Late in January hog shippers at Lone Tree, Iowa, had hogs on their hands that they had purchased at \$8.50 per 100 lbs., awaiting shipment, no cars being available. It is one of the largest hog shipping points in the state, as many as 900 hogs being purchased in one day. When the railroads would not furnish cars the shippers had to rent extra yard room and suffered loss and damage thru the swine piling up and smothering in strange quarters. Some hogs have been held there a month, and the railroads are going to have a busy time defending suits for damage.

Within a short time a good southern demand for cured and partly cured hog meats has sprung up in the Chicago market, and buyers are expected to increase their purchases as the season advances.

Clydesdale breeders report that they have been enjoying a good trade this winter. Several breeding establishments have been started in the Atlantic coast country, and purchases of pure-bred Clydesdales have been made by new breeders in New York, New Jersey and Connecticut.

Complaints are heard in the Chicago horse market that there are not enough heavy drafters to go around. Weight, with quality and bone, are in big demand, and more should be raised for the market. Many farming districts are selling their heaviest and best horses to farmers at home and marketing the poorest horses, altho farm renters are apt to buy ordinary horses.

A Chicago live stock commission firm advises cattle feeders as follows: "As there is seldom any advance in the cattle market between the middle of January and the first of March, we advise those who have cattle of common quality in the feed lot, and intend to market the same during this period, to let them come as soon as practicable, owing to the high cost of feed and rough weather. However, those who have cattle of good quality and have the hogs to follow them, we believe that these can be profitably held for two months longer feeding, as there is no doubt of a shortage of choice to prime heavy cattle in the country."

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## VETERINARY

CONDUCTED BY DR. W. C. FAIR,  
CLEVELAND, OHIO.

Advice thru this department is free to our subscribers. Each communication should state history and symptoms of the case in full; also name and address of writer. Initials only will be published. Many queries are answered that apply to the same ailments. If this column is watched carefully you will probably find the desired information in a reply that has been made to some one else.

**Lump-Jaw.**—I have a cow in good flesh that is all right except she has a bunch on under jaw which discharges a small amount of pus. This bunch is on the bone. E. G. M., Mayville, Mich.—Apply tincture iodine twice a day; also give 2 drs. iodine potassium at a dose in feed twice a day. Lump-jaw, when in a suppurative state is contagious; therefore, I think you had better separate your cow from balance of herd.

**Mange.**—Last summer an exudation appeared on the neck of young calf. Shortly afterward the skin thickened and has been scaly ever since but there are no open sores. C. H. R., Owosso, Mich.—Your calf suffers from mange. Apply 1 part oxide of zinc and 3 parts vaseline once a day. Give 20 drops Donovan's solution at a dose in feed three times a day.

**Horny Tissue.**—My 6-year-old mare was cut by a barb wire on fore part of hock some three years ago. The wound did not heal for a long time and since then a hard sort of growth comes on bunch which seems to scale off but is soon reproduced. Both legs are sore above and below. A. J. S., Bobleville, Mich.—Scars, the result of wounds not healing promptly and properly down near the foot and even higher up on the leg, seem to produce a horny-like substance resembling hoof and no doubt yours is a case of this kind. Apply equal parts salicylic acid and lard to bunches three times a week. Give 2 drs. Fowler's solution at a dose in feed three times a day. For the sore heels apply 1 part oxide of zinc and 3 parts vaseline once a day.

**Rheumatism—Warts—Curb.**—I am inclined to believe that my pigs are troubled with rheumatism. Therefore, I would like to know what to do for them. I would also like to know what will take warts off a horse's eye. I am also blistering a horse for a curb. A. B., Kalamazoo, Mich.—Your hogs may be tickety on account of feeding them an unbalanced ration, too much corn, not enough oats, oil meal, middlings and vegetables. Change their feed and give each one 10 grs. powdered nitrate of potash at a dose in feed twice a day. It is possible that Glauber's salts would be a proper remedy for them and it is not expensive. Cut the warts off, it is dangerous to use caustic near the eyes. A curb is not easily reduced. Try 1 part red iodine of mercury and 8 parts of lard and rub in a small quantity to bunch twice a week.

**Grub in the Head.**—I had a fine ewe taken ill suddenly and peculiarly. She held her nose high in air, arched back at times, became stiff, lost use of mind, and control of limbs, dying two days later. Was within four days of lambing time and was very fleshy and had been fed mostly on cornstalks. I lost a ewe about a year ago that showed about the same symptoms. We found nothing wrong except two grubs near the brain. W. B. F., Riga, Mich.—I am inclined to believe that your sheep died the result of grub in the head. If you have another case blow Scotch snuff up nostrils and they may perhaps sneeze them out; or call a Vet. and have him trephine thru bone of face and dislodge the grubs with warm water injected into nasal passages.

**Acute Indigestion—Azoturia.**—I have a 5-year-old gelding that had an attack of azoturia last spring but recovered. He lost flesh and has remained thin ever since but has had four or five attacks of what our Vet. called impaction of the stomach. Am I liable to lose him from another attack of azoturia? P. H. H., Six Lakes, Mich.—A thin horse seldom has azoturia; besides, a horse that is not overfed when idle seldom ever has it and few horses would ever have it if they were exercised daily. Your horse no doubt has had several attacks of acute indigestion brot on possibly by eating his grain rapidly or being watered soon after eating grain. Give ½ oz. ginger, ¼ oz. gentian, ½ oz. bicarbonate soda and ½ oz. powdered charcoal at a dose in feed three times a day.

**Opacity of Cornea.**—My nine-months-old colt has a defective eye; there is a spot or scum over the right eye, situated on lower corner. The eye is not inflamed and does not discharge. J. W. W., Montague, Mich.—Blow some calomel on eye ball once a day and give ½ dr. iodine potassium at a dose in feed twice a day.

**Bog Spavin.**—I have a mare ten years old that has been troubled with bog spavin for the past four years. By treatment I succeeded in reducing the bunch one-half; besides it lessened her lameness, but when she starts she goes quite lame for a mile or two, then improves. I have applied iodine and camphor which fails to help her much. H. M. C., Scotville, Mich.—Apply one part red iodine mercury and eight parts lard every five or six days and it will help her.

**Indigestion—Wind Colic.**—I have a mare that is 11 or 12 years old that has steadily failed in condition since Sept. 1. Her skin is quite tight; she sweats easy, tires easily and is inclined to eat rubbish. I also have another 8-year-old horse that is troubled with wind colic. This horse never shows symptoms of sickness in the daytime while working, but very often bloats up in the evening. I might mention this horse is stabled with cows and I thought perhaps it might be injurious, on

account of being too warm; however, the barn is well ventilated. L. L. Roscommon, Mich.—Examine your mare's teeth; they may need floating; a change of feed might help her; also give a tablespoonful of ground gentian, two tablespoonfuls of ground ginger and a tablespoonful of bicarbonate soda at a dose in feed two or three times a day. Give your 8-year-old horse 1 dr. salicylic acid at a dose in feed every evening and in a few days add 1 oz. powdered charcoal with each dose. I suggest that you feed oats instead of corn, but stabling your horse with the cows should not make him sick, if sufficient fresh air is admitted into the stable.

**Liver Disease.**—Had a colt about 15 months old that took sick and died the following day. This colt appeared well in the evening and ate his feed and died the following evening. Her urine was dark and blood-like and the kidneys contained some blood-like fluid. Our local Vet. thought the colt died of liver trouble. A. J. D., Temperance, Mich.—Your colt either died of liver or kidney trouble and treatment might not have saved her as the disease appears to have been of an acute nature.

**Wounded Leg.**—Three weeks ago my 18-year-old mare kicked in the stable and struck the metal water trough, cutting hind leg midway between fetlock and hock. The wound has not healed but is filled with proud flesh; the treatment I have given it has done no good and as other prescriptions of yours have proved helpful I am writing now for information. J. C., Munith, Mich.—If the tendon is cut, which I think it has been, you should cut off the protruding end and keep it either cut or burned down with a red-hot iron or, if the bunch is a fungus, cut it off just the same. Apply equal parts powdered alum, oxide zinc and calomel twice a day.

**Congestion—Cold.**—Three weeks ago I drove my mare two miles, let her stand for two hours; the same evening she appeared stiff and showed symptoms of having taken cold; she has recovered from the cold but is stiff in fore quarters. Z. A. H., Gregory, Mich.—Your mare suffers from what is commonly termed wind founder (congestion). Apply equal parts turpentine, aqua ammonia and sweet oil to coronets in front every day or two and give 2 drs. salicylate of soda in feed twice a day; also feed enough well salted bran mash or vegetables to keep the bowels open and it may be necessary to poultice the front feet.

**Leucorrhoea.**—I have a mare that has had a vaginal discharge ever since she was mated last year. Do you believe it possible for her to be in foal? She is in fair condition and does her work well. H. E. C., Vanderbilt, Mich.—If you mare has not come in heat since she was bred she is perhaps safely in foal. An examination can be made by passing the hand into the bowel and ascertain if there is a foal in the uterus or, if you will watch the left flank after she takes a drink of cold water, the motion of colt may be discovered. The whole trouble may be the result of an injured vagina. Dissolve 1 dr. permanganate of potash in 3 qts. of water and flush out vagina daily thru a rubber tube with funnel; heat this solution to a blood heat before using.

**Scours.**—My 18-year-old horse has been troubled with scours since last fall. Our local Vet. treated him during November; he floated his teeth, gave him 1 qt. raw linseed oil and condition powders. In January he gave him a pill of bitter aloes and more powders, but both times the treatment was ineffectual. He is fed 3 quarts ground oats and wheat bran, equal parts, three times a day. In the fore part of the winter I fed him timothy; now he has mixed hay. I also have a 3-year-old colt that has had two or three sick spells brot on by difficulty in urinating. H. R., Brighton, Mich.—Give ½ oz. powdered sulphate iron and 1 dr. powdered opium at a dose in feed three times a day and as soon as the bowel movements check it will not be necessary to give as much.

**Looseness of Bowels.**—I bot a horse last spring that appears to have only one trouble. When driven on the road his bowels are inclined to be too loose. F. G., Monroe, Mich.—Give ½ oz. ground ginger, 2 drs. powdered catechu and 1 oz. bicarbonate of soda at a dose in feed three times a day.

**Indigestion.**—I have three horses that I am feeding corn, oats and rye, ground together, and they are doing well; but my two 5-year-old mules have been scouring some for the past four weeks. A. B., St. Johns, Mich.—Your mules' teeth may need a little attention. Give 1 oz. prepared chalk, ½ oz. ground gentian and ½ oz. baking soda at a dose in feed to each mule three times a day.

**Indigestion.**—My cow appears to be sore in her back; her coat is rough and she is not thriving. She is fed corn-and-cob meal and cornstalks. T. M. W., Pontiac, Mich.—Apply equal parts aqua ammonia and sweet oil to back three times a week and give ½ oz. acetate of potash at a dose in feed three times a day, also give 4 oz. Glauber's salts daily for a week.

Stockmen who are so fortunate as to be the owners of thrifty growing young hogs should not make the serious mistake at this time of sacrificing them under the apprehension that future market conditions will not be favorable for matured hogs. Whether the market rises to the extreme figures recorded recently when prime barrows sold in the Chicago stock yards at \$9.05 per 100 lbs. or not, it is practically a certainty that low-priced hogs are not going to be seen for a long time, owing to the great shortage in feeding districts. It still holds true that a better time could not be found for going into breeding and raising hogs for the market, care being taken to obtain choice breeding boars and sows at the start. As a rule, present owners of hogs are marketing them before they attain enough weight, and packers find it extremely difficult to manufacture enough lard to meet market requirements. Recent average weights of hogs received at Chicago have been much lighter than in most years.

## This contractor got results.

Some years ago a contractor building a railroad in a warm climate was troubled a great deal by sickness among the laborers.

He turned his attention at once to their food and found that they were getting full rations of meat and were drinking water from a stream near by.

He issued orders to cut down the amount of meat and to increase greatly the quantity of Quaker Oats fed to the men.

He also boiled Quaker Oats and mixed the thin oatmeal water with their drinking water. Almost instantly all signs of stomach disorders passed and his men showed a decided improvement in strength and spirits. This contractor had experience that taught him the great value of good oatmeal.

The cost was small; 10c for regular size packages; it is also packed in large size family packages at 25c.

## SAVE THE HORSE'S SPAVIN CURE



Don't forget, Mr. Man, no matter what your case is, an investment in "Save-The-Horse" means that you simply cannot lose if you go at it right.

**OUR CONTRACT PROTECTS YOU.**

Simon & Son, Tailors, Richmond, Va., Nov. 20, 1909.  
TROY CHEMICAL CO., Binghamton, N. Y.: I used "Save-The-Horse" as you directed on the place where the horse was kicked and he recovered entirely from lameness. A week afterward he went lame in hind leg, and he was very lame. I had a doctor examine him and he said he had a blind jack. As I had some "Save-The-Horse" left he advised me to use it, which I did, and he is perfectly sound. This jack came on the leg that was sound, for, if you remember, he had a bone spavin on the other leg some time ago. I have had tough luck with this horse, but your remedy has always given him a cure. I thank you for your kindness, always willing to give advice, and I shall always recommend "Save-The-Horse" highly. NATHAN SIMON.

Norway, Me., Oct. 19, 1909.  
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## POULTRY AND BEES

### RAISING CHICKS WITH A BROODER.

If one is to use an incubator in hatching chickens, then he certainly ought to have a brooder to raise them in after they are hatched. If the desire is to raise broilers for the early market, then one ought to have a brooder house artificially heated, and use what is known as indoor brooders, but the ordinary poultryman who raises chickens largely to get laying stock to replenish his own flock is not particularly interested in the broiler question, and consequently he will not care to go to the expense of building a brooder house. Nor will it be necessary if he does not hatch his chicks until April, because April hatched chicks can be raised in an out-door brooder without any brooder house with perfect success. In my opinion, the farmer cannot afford to raise broilers to any great extent. If he attempts to combine two businesses, making broilers out of the cockerels and saving the pullets that are hatched in January and February for future layers, he makes a mistake, because these chickens are too early to get the best results from them as pullets.

I think an April hatched chick, I don't care if it isn't hatched until after the middle of April or the first of May, will make a better and more profitable hen than one hatched earlier. If they are hatched too early they will moult in the fall, and they are not apt to be as good winter layers as an April or early May chicken. If such chickens are properly fed and developed, they usually begin to lay quite early in the fall; they do not moult and they will continue to lay the entire winter, which is what the practical poultryman and farmer is after. Consequently, the ordinary farmer who raises from 300 to 500 chickens a year to replenish his old flock of laying hens is not interested in the broiler question except as a side issue. He can sell the April hatched cockerels for a very good price as broilers, or he can feed them a little longer and sell them for roasters and get almost as much profit from them as by trying to raise broilers in mid-winter.

### Extreme Early Hatching and Broiler Raising Difficult for Average Farmer.

There are a great many things about the broiler question that a man learns from experience. In the first place, it is difficult to get fertile eggs so very early in the year. Eggs do not hatch as well, and you have to have excellent quarters, both for your incubators and your brooders, or the mortality will be excessive. I would not advise the ordinary farmer to hatch chickens in the middle of winter. Wait until spring. This being the case, you want good out-door brooders, and they are on the market. Now with out-door brooders it is not very much of a job to raise chickens. Of course, it is something that must be attended to carefully, and systematically. The thing that kills chickens is sudden changes in temperature, and the temperature must be looked after. This is practically all there is to raising them.

When the hatch is ready to take off, one should see to it that the brooder thermometer stands at 100 degrees. They ought not to be put into a brooder that has not been heated to 100 degrees. But after two or three days the temperature may gradually drop down to 95 and then to 90 degrees, and as the chickens develop it ought to drop a little lower. That is too high for a chicken after he has a good start and the food which you give him begins to consume oxygen and generate heat in his body. The first few days after the chicks are put into the brooder one should look at the thermometer every few hours, and not allow any sudden changes, because sudden changes are fatal to young chicks.

Many chickens are killed by the food they receive. People feed too much to young chickens. I have finally settled down to the idea of feeding prepared chick food. Or the farmer can prepare his own chick food by mixing several small grains together and putting in a little grit and some finely chopped meat or meat meal. I am convinced that this fed entirely dry to young chickens is better than feeding them a mess of soft foods. Where one attempts to feed much soft food in a brooder he overfeeds at times, and this litters up the brooder and is liable to get it into an unsanitary condition. On the other hand, the dry food can be given in liberal quantities and, if not eaten at one time, it will be eaten the

next. The chicks will eat enough of this dry food so that they will thrive fairly well. I haven't any doubt that a person who is particularly adapted to fixing up food for chickens can perhaps get a little more growthy chickens in a given length of time than he can with a standard chick food, but he will not gain as much as he thinks, and I believe his mortality will be greater. Then I think chickens intended for layers are better for having grain rather than soft food, because I believe it is better digested and makes a harder fowl, even tho they do not grow quite as rapidly.

COLON C. LILLIE.

(Concluded next week.)

### IN ANSWER TO INQUIRIES.

Mrs. C. O. B. Montgomery:—The principle of the open-front poultry house was illustrated and described in The Farmer of October 2, 1909. Your plan to erect a building that can be properly ventilated and to start anew with fresh stock, is a good one. If, as you say, your flock is suffering from roup, it will no doubt prove cheaper and better in the end to make a fresh start, but remember that every part of the premises to which the present fowls have access cannot be too carefully cleaned up and disinfected before the new flock is started.

H. V. S., Byron Center:—Skim-milk is sometimes used as a substitute for meat scrap or green bone by those who compound layers' rations carefully and scientifically. It is a fairly good protein food altho containing not nearly so large a percentage of protein as meat, bone, etc. Instead of feeding it several times a week, as is the usual practice with meat and bone, it may be made a part of the daily ration. Where wet mashers are fed it may be used for moistening the mixture; otherwise it should be given in the drinking vessel, care being taken at all times to have it sweet and wholesome. We think there is little danger of the trouble you apparently feared, and it is entirely possible that the decline in egg production was due to withholding the milk, especially if no other form of animal food was substituted.

### FOUL BROOD AND THE BEE-KEEPER'S DUTY REGARDING IT.

(Concluded from last week.)

Where there are several colonies affected with this disease and you wish to save the brood, do not shake quite all the bees from it, but leave sufficient to take care of it. Pick out all the frames having a good showing of live brood, making them into a "stack" two stories deep. By stacks I mean double-story hives, or several hives of brood one on top of the other. These stacks of beelless brood can be shaken onto foundation at the end of three weeks, given a queen and will make a bouncing colony. Give these bees only a very small entrance until they have their queen and are shaken on the foun-

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dation, or robbers may get in their work.

The rest of the combs should be boiled up for wax or burned. If boiled, great care should be taken not to allow the bees access to them, either before or after boiling, as the boiling will not kill the germs of the disease unless kept up for several hours, which would spoil the wax. To burn the frames which are not worth trying to save, dig a pit and build the fire in it. When thru, cover over with dirt. All tools before being used again should be thoroly cleansed and disinfected. The best plan is to use old tools and then destroy them when thru.

European foul brood, or black brood as it is more frequently called, has much the same outward appearance as American foul brood, but when the brood is examined, instead of being ropy and stringy like the American, it is of a gelatinous character. There is no glue-pot odor, or other odor except a slightly fermented smell like that of decaying apples. The color of the dead larvae resembles that in American foul brood except that in the advanced stages it becomes black, hence the name "black brood." It is exceedingly contagious and the treatment given for American foul brood is the best known treatment for this disease at least for safety.

Expert bee-keepers have cured this disease, however, by simply removing the queen until all the brood is hatched out and then giving the bees a vigorous, young laying queen. The bees will clean out and polish the cells and in this manner the combs will not have to be sacrificed. This treatment, remember, is only used for "black brood." In American foul brood the dead larvae dries onto the side of the cell like glue and the bees find it impossible to remove it. Black brood, on the contrary, is easily removed and, in the hands of the careful man, the above cure will be a success.

#### A Few Necessary Precautions.

Following are a few precautions which must be observed absolutely and to the letter or you will never get rid of the disease.

Never handle a clean hive, or any other article for that matter, after handling the diseased combs, without first cleansing and disinfecting the hands and anything else which has come in contact with the disease germs.

Never handle them when robber bees are about. The best time is in the evening. Be very careful not to allow your smoker to become contaminated.

If you shake the bees in front of the hive when treating them, be sure to drench the place thoroly with a carbolic acid solution before other bees are out. Better shake or brush directly over the frames of foundation.

All diseased combs intended for wax should be rendered as soon as possible. At all times be absolutely certain no bee is going to get to them. If one does get to them kill him. All slum-gum and water in which the wax was rendered must be buried lower than the plow, ever goes. You cannot be too careful for there are thousands of the deadly spores in every drop of infected honey, only requiring to be placed in the proper elements to hatch out into the destroying bacilli, when the work of destruction will spread again with amazing rapidity. These spores are also impervious to boiling water, acids, or any other chemicals, consequently drugs can not be relied upon, altho they may be of help because of the fact that they will destroy the bacilli when hatched from the spore.

#### Pickled Brood Far Less Harmful.

Pickled brood resembles foul brood somewhat, in so far as the irregular perforations in the cappings go, but it lacks the foul odor and the ropiness of American foul brood. It more closely resembles black brood, for which it is often mistaken.

This disease is only mildly contagious and the bees will often take care of it without the help of the apiarist, but it will usually keep cropping out until taken care of. As it is often mistaken for black brood, and vice versa, perhaps the best plan would be to shake the bees onto foundation at once, as this will cure in either case.

Pickled brood does not usually spread much from colony to colony except as combs are carried from one hive to another. Altho colonies will go on for years, sometimes, with pickled brood in the hive, it is a detriment to them and much valuable honey is lost by allowing it to remain. Hence it is imperative that it be removed, altho it does not require the care in handling that is so necessary with the more virulent diseases.

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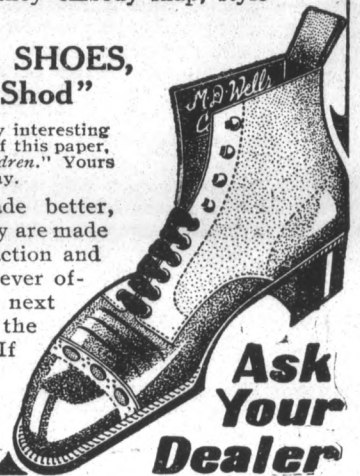
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 Detroit, Mich.

DETROIT, FEB. 19, 1910.

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## CURRENT COMMENT.

Some statistics recently published by the Department of Agriculture touching the stocks of potatoes in the hands of growers and dealers on January 1, 1910, and comparisons of these figures with the stocks in hand on January 1, 1909, afford a basis for deductions with regard to the probable trend of the potato market during the balance of the season which have heretofore been impossible, at least with such a tangible basis to figure upon. These latest government figures show that the total potato crop for 1909 was finally estimated to be 376,537,000 bushels as compared with 278,985,000 bushels for 1908. The estimated percentage of the preceding year's crop of potatoes raised for market which

was held by growers and dealers on January 1, 1910, is estimated at 50.8 per cent, 41.2 per cent of which were in growers' hands and 9.6 per cent in dealers' hands. As compared with the condition on January 1, 1909, it was estimated that on that date there were 43.8 per cent of the season's crop in growers' and dealers' hands, 32.5 per cent being held by growers and 11.3 per cent being held by dealers. Should these estimates prove approximately correct, it would mean that there were something like 69,000,000 bushels more potatoes to be marketed on January 1, of this year, than on the same date last year.

Conditions are, however, materially different than they were at that season last year for the reason that foreign potatoes were coming into American ports by the ship load and, from the first of the year on thruout the market season, the supply needed by seaboard markets was very largely drawn from different foreign sources. While we have not at hand figures which show the amount of these imports for last year, it is probable that they would not aggregate anywhere near 69,000,000 bushels. Statistics for previous years show that in no other season have the imports of potatoes reached quite 9,000,000 bushels, but undoubtedly the receipts of potatoes from foreign countries were much larger during 1909 than any previous year, owing to the large crop and the consequent cheap prices in European countries and the short crop and high price in this country, especially during the period from January 1 to near the close of the marketing season. Thus these figures make it certain that there is a much larger surplus in growers' hands than was the case last year, or probably any previous year, since, of the reserve stocks on January 1 of last year, a larger proportion were held by dealers than is the case this year.

Of course, the earliness of the season in the localities where potatoes are grown for the early market, will materially affect the situation. Should the season be backward and the harvesting of the early crop thus delayed, the season for the marketing of old stock would be prolonged. But this could not affect the market for some months to come, and with growers selling freely enough to supply current demands, which appears to be the case at present, no marked advance can be expected until very late in the season, if at all. However, as the stocks in the hands of dealers are shown to be comparatively small, with a reasonable conservatism in marketing at prices anything below the present range, a level and even market may reasonably be expected; and, undoubtedly, there will be a time when the winter is breaking up and the roads are soft when those who are located close to shipping points may be able to market their crop at a figure somewhat in advance of current values. At present prices for the various foodstuffs potatoes are about the cheapest thing in the whole list, hence any further lowering of prices can not be expected to stimulate consumption, and it would be the part of wisdom for growers to refuse to market their crop at lower values, because the market will take them as fast as it can use the stock at prices which are now prevailing. Apparently, the in many cases unconsciously, the potato growers of the country have been following this policy during recent months, since the potato market has been fairly even and level in price since the first slump following heavy shipments of frosted stocks. As above noted, those who hold for the extremely late market may get much higher prices. Such things have occurred in past seasons when nobody expected it. In fact, it is the unexpected thing that often happens; but there is no small risk in holding the potato crop for the very late market. The season for old potatoes has shortened quite materially in recent years, since the marketing of early potatoes for shipment to northern markets by southern growers has increased materially in the last decade.

The local institutes which have been held thruout the state during recent months, and which are reported as having been unusually successful and well attended will be over for the season with the passing of the present month. As noted in these columns in a previous issue, something of an innovation in the way of short courses has been announced as the natural outgrowth of, and designed, in a measure to supersede the annual Round-up Institute as previously held. The college authorities have, however, designated the second week of the month to be

devoted to this work as Round-Up Institute week, at which time the conferences of lecturers and delegates from the County Institute Societies will be held. A general program will also be held, one session of each day being devoted to a course of lectures on the subjects of soils, fertilizers and crops by members of the college faculty. Other sessions will be devoted to addresses and discussions on other practical topics, such as alfalfa, dairying, cow testing associations, the cost of growing timber, the silo, potatoes, agricultural education and planting and care of the orchard. The Woman's Congress will also be held as usual. Speakers from outside of the state are, Prof. A. L. Haecker, of the University of Nebraska; Prof. R. S. Kellogg, of the United States Forestry Service, and Prof. Wendell Padlock, of Ohio State University. These sessions will be held in the new agricultural building at the college, from February 22 to 25 inclusive, and will prove both interesting and profitable to every farmer who can arrange to attend. Last week was devoted to a short course in corn growing and the week succeeding the Round-Up will be devoted to short course lectures on dairy subjects, while the last week of the series of lectures will relate to breeding and feeding swine. Space will not permit the reproduction of the Round-Up program in full, but a careful review shows it to be superior in character to those which have been presented at the close of the Institute season in recent years.

## A Successful Co-Operative Enterprise.

Something like three years ago there appeared in these columns an account of the organization of a Farmers' Co-Operative enterprise at Greenville, Mich., known as the Greenville Co-Operative Produce & Supply Co. The details of the organization were given at that time. The idea originated in the local farmers' Club in that place, and a committee was appointed to solicit stock subscriptions to the enterprise. The original plan was for each prospective member to subscribe stock to an amount which would equal approximately 10 per cent of the value of the potatoes which he would market during the average year, potatoes being the principal farm product to be handled by the company. Thus the man who ordinarily sold 1,000 bushels of potatoes was asked to subscribe to the capital stock to the amount of \$100, while the man who ordinarily marketed only \$100 worth of potatoes was asked to subscribe \$10, that being the minimum subscription. After a considerable portion of the capital stock of the company had been subscribed, however, it was found that it was difficult to maintain just this proportion and the bulk of the subscriptions were consequently small, ranging from \$10 to \$50 per individual, the largest subscription by any one individual being \$200. There are now 155 members of the organization who have contributed a paid up capital of about \$4,500.

The association has been doing business for nearly four years and last week held its third annual banquet, it being the policy of the organization to get all of the members together for such an event once each year. A member of The Farmer's editorial staff was invited to attend the banquet and address the members present on the subject of co-operation among farmers, and was pleased to learn that this organization has met with such marked success. Its existence is due to the fact that the farmers who organized it felt that the potato market at their shipping point was not maintained at an equitable price, it generally ranging somewhat lower than at other near-by shipping points. The organization of this co-operative company has brot about a marked improvement in this respect, the Greenville market at present ranging several cents per bushel higher than the values which prevail at near-by shipping points. The amount of business which this co-operative organization has done on this limited capital is quite remarkable, the aggregate of its transactions for the past year being around \$90,000. So far the present year 104 cars of potatoes have been shipped, and the last year's shipments of the concern aggregated 165 cars. When it is considered that a considerable amount of the capital stock of the company is invested in a potato warehouse, office, scales, coal sheds, and other necessary equipment for transacting its business, and that aside from handling this large quantity of potatoes it supplies and sells coal and other commodities, such as binder twine, clover seed, fertilizers, agricultural implements, etc., the showing is all the more extraordinary.

As is usual in such cases, the local dealers undertook to put the co-operative concern out of business by raising market values to a price which left little profit in their transactions. But the purpose of the organization was not to pay dividends, hence its manager was able to compete, and the business has not only withstood these efforts of the opposition but has increased instead of diminished in successive years. Prices of the products which it buys have not only advanced, but prices for commodities which it sells have been reduced in that market; coal, for instance, being about 50 cents per ton cheaper in consequence of the company's operations.

Not the least factor in the success of this concern has been the efficiency of its manager, who is a thrifty Dane and a good judge of human nature. Quite a proportion of the agricultural population of the community are Danes, or are of Danish descent. Aside from personal considerations it is peculiarly fitting that this first organization of the kind in Michigan, or in the country, so far as we are advised, should be managed and largely patronized by people of this nationality, since the farmers of Denmark have set an example in co-operative enterprises which the farmers of every other country of the world would do well to emulate. This co-operative organization has passed the experimental station; it is a success. Its members appreciate what it is doing for them, as do many of the other farmers of the community. An effort is now being made to make its membership more general, and thus provide it with increased resources with which to handle an increasing business.

It is not an uncommon thing in that community to hear some member of this association wondering why the farmers of other communities do not organize and conduct similar enterprises, since the benefits to be derived are so apparent and success so easily within their grasp. Certainly this organization ought to be an object lesson to the farmers of many other Michigan communities. It is right along the line of community production which has been emphasized many times in these columns as the best basis for co-operative organization among farmers. There are hundreds of other communities in the state which could just as easily organize a business of this kind as could the progressive farmers about Greenville. Kind reader, why not profit by their experience and effect such an organization in your community? It only needs some one to take the initiative to bring results. Leaders are few; but there are many who will follow an enterprising leader for their mutual benefit. The actual labor of effecting this organization devolved upon a few of its most enthusiastic promoters. Such is ever the case, but the results accomplished are sufficient remuneration for the effort involved to the public spirited citizens who undertake such a work.

## HAPPENINGS OF THE WEEK.

### Foreign.

The Russian government has completed a scheme which Emperor Nicholas has sanctioned, appropriating \$500,000,000 for building a new navy. Besides battleships and cruisers, there will be built 50 destroyers and 50 transports. The program of construction is to be extended over a period of 10 years. Most of the boats are to be built in Russia.

A steamer was wrecked off the Island of Minorca, south of France, and only one person of the entire crew and passengers was saved.

Canada will not be included in the tariff agreement with Great Britain. She will be dealt with separately by the United States in arranging the preferred list.

Dissension among the liberals of Spain caused the resignation of the cabinet, whereupon the King at once chose the leader of the extreme liberal element to form a new ministry.

Those acquainted with the situation declare that Spain is in practically identical conditions as was France previous to the separation of the church and state a few years ago. The new cabinet appears to be the last hope of the Liberals. Should they fail here in all probability a similar action to that which took place in France will be prosecuted.

Matagalpa, Nicaragua, is being bombarded by President Madrid's forces. Unless the rebels are defeated, it is believed that much disorder will result. The situation in the country is considered serious and business is practically at a standstill. It is expected that General Estrada will be inaugurated president of the republic in a few days.

Former Vice-President Fairbanks is now at Berlin, Germany.

The British navy has decided to substitute oil for coal upon her battleships and in compliance with this change, 11,000,000 gallons have been ordered.

Dr. Frederick A. Cook is now reported in Chili.

Demonstrations by socialists thruout the German Empire resulted in much disturbance and considerable annoyance to the authorities. At some of the larger places it was necessary for the police to

(Continued on page 189).



# Magazine Section

LITERATURE  
POETRY  
HISTORY and  
INFORMATION

**MICHIGAN FARMER**  
AND *LIVE STOCK*  
JOURNAL  
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The FARM BOY  
and GIRL  
SCIENTIFIC and  
MECHANICAL

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

## The INDIAN MISSION SCHOOL of MICHIGAN

BY IRMA B. MATTHEWS.

ALL my life I have been much interested in the Indians and have given much time to the study of the race and it was with great pleasure that I found myself enabled to visit the Holy Childhood Indian School at Harbor Springs.

Harbor Springs is one of the most picturesque and interesting spots in Michigan, rich in history and legend. During the Indian and British wars Northern Michigan played a prominent part, but it is with the school only, or with such history as is connected with it, that this article is to deal.

Here on the very spot now occupied by

gave me all the information I sought.

Altho it was vacation there were about forty children, orphans, in the school, and they were busy at their regular morning tasks. Each had work to do. Some were sweeping their rooms and others were busy at various tasks around the building. I would have been glad to have been able to see them at their school work, but this was, of course, impossible, altho I was shown the school rooms. In one of them I noticed that George Washington's picture occupied a prominent place. Thus are the little red children

fourteen years of age who had never been taught anything, not even the English language. Then of course their task is a difficult one to cope with.

Book learning, however, is but a small part of what is taught them, for they are also taught those things that will make them good self-supporting citizens. They also, of course, receive religious instruction, a part of each day being given to religious worship. The girls are also taught all kinds of housework, plain and fancy needlework, carpet and rug weaving and music. The boys are taught carpentering, (for which they tell me they seem to exhibit a special talent), shoe repairing and other useful trades, so that when they leave the school they are able to go out into the world and stand side by side with their white brothers in the battle for a livelihood.

The daily routine in school time, as set forth in a little paper given me by the Mother Superior, is much as follows: They begin the day by rising at six o'clock; at half past they assemble for their morning prayers; at six forty-five they have their breakfast, some of the larger girls assisting one of the Sisters to wait on the other pupils. The dining room was very pleasant and, like the rest of the building, scrupulously neat. The table was set with enamel-ware plates and steel knives and forks, which, I was told with a smile, was their china and silverware.

After breakfast they take up their work, each doing the task assigned, and all have something to do, even to the little tots who carry the wood, sometimes but a stick at a time, but it teaches them to be useful. The boys cut and saw wood and attend to the heavy work, while the girls make beds, sweep and wash dishes. All tasks are finished by nine o'clock and each child repairs to the class rooms. The forenoon is spent with their books. At noon dinner is served and the afternoon session of school begins at one o'clock, with a luncheon at half past three and supper at six.

The girls take turns in doing the var-

ious kinds of work. One week they work in the laundry, the next they are bakers, again they help prepare the meals, and then work in the dining room. Nor is this all. They must mend the neatly ironed clothes and they are also taught to make clothes. I saw the sewing room, with its long tables for cutting purposes and rows of sewing machines where this work is done. I also had the pleasure of examining many things that had been made by the pupils, from the doll dresses they begin on to their own clothes.

A fair had just been held for the benefit of the school. Some of the things they had manufactured were still there and I enjoyed viewing them. Some of the work was really wonderful.

I was then shown the sleeping rooms, with their rows of little beds in spotless white, and was impressed with the fact that they had the most perfect ventilation. The air was coming thru the open windows directly from the bay. It was delightfully pure and invigorating, and the view from the various windows was a beautiful one.

There is a chapel in the school building and it is very pretty, in fact, as pretty but smaller than the church.

In one of the rooms were many relics and these I enjoyed very much indeed. I noticed an old tomahawk, still fastened to its wooden handle with buckskin thongs, and other primitive weapons of the red men. Very crude they appeared to me, but I remembered that they did very good execution with them for all of that. Then there were two paintings that had been in the old Indian church and were very old; they were dimmed by age but very interesting.

I was attracted by the picture of a noble looking man and learned upon inquiry that it was the picture of Father Damien de Venster, who went to Hawaii to give himself as a missionary to the lepers. His noble life, with its devotion, is ended, but the example lives on.

In the kitchen, preparations for the mid-day meal were already under way, superintended here as elsewhere by one of the Sisters. In the back yard many of the smaller children were at play. From here



The Indian Mission School Building and Church at Harbor Springs, Mich.

the church, Father Marquette himself established the first mission in this region. Of course it was but a very crude affair but it has grown until a very beautiful church now stands upon the spot. It stands in what should be the street as the town is laid out, but it seems that, according to the law, they cannot compel the moving of church property, and so when the new church was built, fearing that if they tore the old one down they might not be allowed to rebuild on this spot so full of historical interest, they built the new church around the old before removing the latter, thus making sure of holding possession.

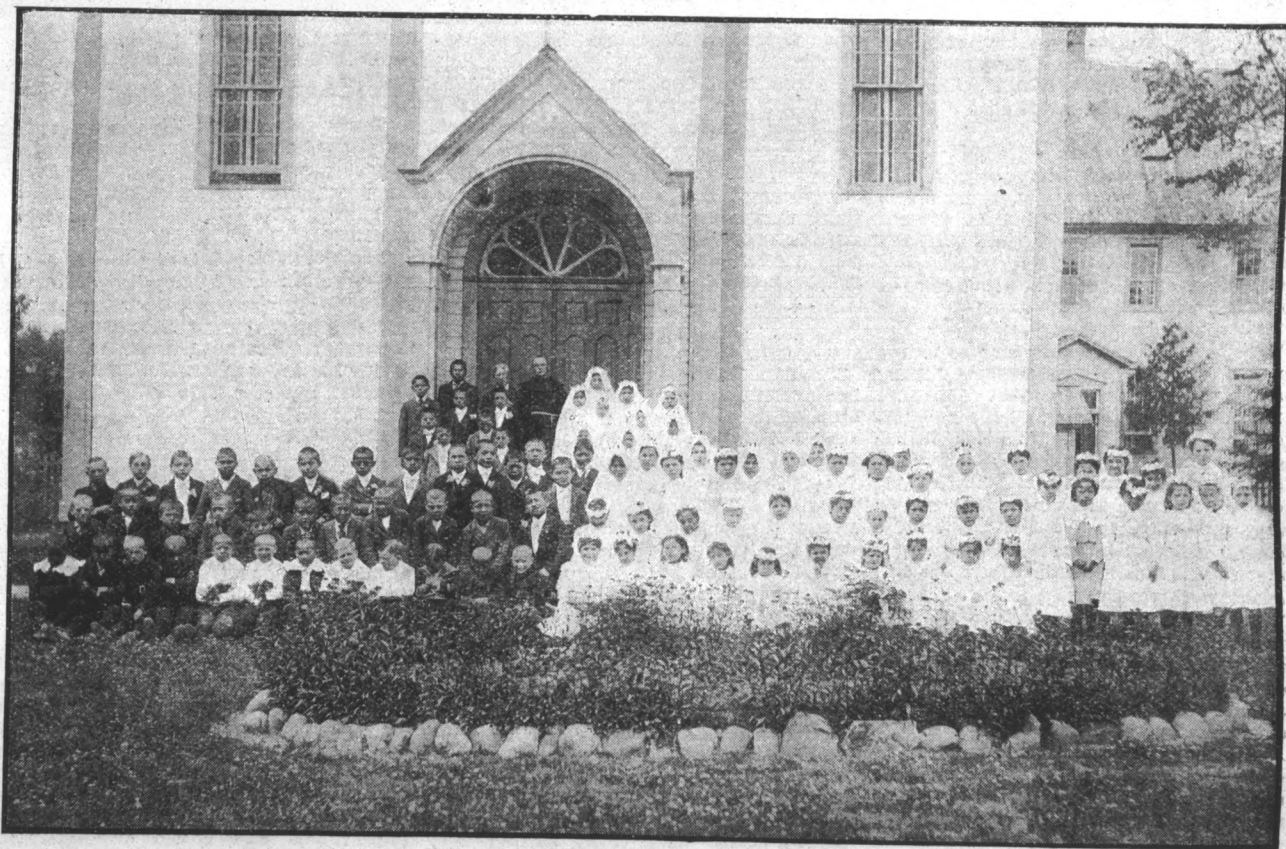
The school is under the direction of the Franciscan Fathers, the same order that had charge of the California missions, but they have not suffered, as yet, as did the missions on our western coast. The Sisters of Notre Dame have charge of the girls, while the resident priest teaches some of the boys. The Rev. Father Servatius, the founder of the school, died in Los Angeles, California, some years ago. The first school was only a little day school established in 1885 with thirty-six pupils, but it has rapidly increased until the last year there was enrolled 162 boarders and 30 day pupils, making a total of 192.

When the school was first started it was simply a mission school supported by charity, as the Indians themselves paid nothing. In 1888, however, a contract was secured from the government to educate seventy-five Indian children. This contract has been changed from time to time until I believe at the present time they receive little if any help from that source.

So much for the history of the school. Now something of it as it appears today. Altho my visit was rather ill-timed, being in the early morning and also in vacation time when many of the Sisters were absent, for one reason and another, yet the Mother Superior received me very graciously and, when I explained my errand, kindly showed me thru the building and

early taught love for the great ones of our country. In one of the rooms for the little tots I saw the work in paper cutting such as the little ones in our kindergartens have.

I asked the Mother Superior if she thought the Indian children were naturally as bright as white children, and she answered that she thought they were about the same when given the same advantages, but that they frequently received children



A First Communion Class of Indian Children at Holy Childhood Indian School.



we walked back into the reception room where I took leave of the Mother Superior, visiting the church later in the day.

I was much interested in all that I saw and am glad that so much is being done for the race that are really but aliens in their own land.

## EMMA'S FIRST BEAU. BY FLORENCE HEATH.

The glaring sunshine lay white and palpitating on the baked cement walks and dusty driveways of Cartersville, and the shrubbery exhaled the peculiar odor of heated vegetation. The whistle of the canning factory had just stopped blowing and the town clock over the way with heavy iron clangs was still beating the noon hour. The factory hands were filing out quickly on their way home to dinner.

"Say, Em, which way are you going?" asked Sallie Newton of Emma Post, the new girl in the factory.

"Up Main street. Why?"

"I am going along, if you don't mind. I have something dandy to tell you," and Sallie turned over the gum in her mouth. The better-bred Emma had at first resolved to have nothing to do with this slangy, gum-chewing girl. But Sallie's kindness and generosity had gradually softened this resolution.

The two passed side by side into the street. As soon as they were alone Sallie resumed: "My fellow is out west, you know. Well, he knows another fellow, a perfect swell, that wants a lady correspondent. So Len, that's my fellow, wrote and asked me if I knew of some awfully nice girl, and I thot of you right away."

"I never had a fellow," reluctantly admitted Emma.

"Never had a fellow!" and Sallie gazed at Emma as if she had been an escape from confinement. "And you must be as much as eighteen! Why, I have had fellows ever since I was knee-high to a duck. Who takes you places?"

"If it is night I go with my father."

"You go with your father!" and in her amusement Sallie laughed aloud. "Oh, Em, you are a queer duck."

In the presence of so much sophistication Emma felt somewhat abashed at her own ignorance of the world. Perhaps she was queer. Then she must try to become more like other girls. "It must be nice to have a fellow," she conceded.

"You bet! Or even only a gentleman correspondent. I was sure that you would write to Len this evening."

"Ye-e-s—if mamma has no objections."

"Your mamma! Are you going to tell her?"

"I tell her everything."

"Well, you are the queerest jigger!"

At the next corner the two girls parted and a few minutes later Emma turned in at her unpretentious home. There all was in a stir. Mrs. Post, who was a dressmaker, was hurried to distraction to finish a gown for a customer. She had, however, snatched enough time away from her work to spread some things on the table so that Emma could eat in the few minutes at her disposal. Mrs. Post's face was thin and careworn and a worried air clung about her. Her sense of poverty bitterly oppressed her.

"Sit down, Emma. We will not wait for papa," she said, and Emma obeyed.

"Sallie Newton wants me to correspond with her fellow's chum," Emma confided in her usual way.

"I don't think much of such work," frowned the worried mother. But she recalled the dull prosiness of Emma's life, a thing to which the family's poverty bound the dear girl. "You always have been a good girl, Emma; since you always tell me all about your affairs, I have a to advise you."

"Then you don't care."

"Oh, we might see what kind of letters he writes." The badgered woman really had no time seriously to think about it.

Ten days later Emma had her first letter from Joseph Rice. She sought her mother. "He is a general agent for a big insurance company and makes big money, he says. He wants to know all about me—whether I am a musician, a literary lady, or a society belle. I am going to tell him honestly that I am only a plain working girl."

"Quite right, my child," Mrs. Post sighed deeply and then resumed: "It grieves me terribly to have you down there in the factory. But since papa can't get work, you and I have no choice but to earn our own living."

A few days later Emma announced to her mother the arrival of the second letter. "He says, mamma, if there is any class of people that he takes off his hat to it is the working class."

Mrs. Post was pleased with Mr. Rice's

breadth of spirit. She wondered vaguely whether there were no nice girls out there where he lived. "I suppose Sallie's friend knows all about him?" she asked aloud. "And as long as you allow me to see the letters—well, I don't see as any harm can come from the correspondence. And it is diversion for you."

But Emma was too absorbed in her own thots to give attention.

Mrs. Post's judgment kept her a little uneasy, but in the privacy of conjugal life she confided to her husband: "As far as I can see, this Mr. Rice is considerably more of a catch for a girl than anybody around Cartersville. He has money and a plenty of it. I don't want any girl of mine ever to have to pinch and slave as I do. Nct, Silas, that I am complaining but—"

"Worse things might happen to Emma than for her to marry a poor man," Mr. Post spoke up, rather sharply.

"Poverty is a hard thing to bear, Silas—bitterly hard. And I ought to be a judge." Thru her hardships with the unenterprising but good-natured Silas, Mrs. Post had come unduly to prize money and what it would buy. Money, therefore, formed a large part of her thots and conversation.

Emma, meanwhile, had much to say about "my unknown correspondent" and privately her girl friends declared that Emma Post was growing stuck-up and spoiled.

Presently Joseph Rice sent his photograph and requested Emma to send him one of herself. Emma rushed to show the picture to her mother.

"He is right nice looking, anyhow," thot the mother.

"But rather old for a young girl like Emma," pronounced Mr. Post to whom the picture was passed. "From the photograph I should say that he is as much as thirty-five or forty."

"Old enough then to have some sense," defended Mrs. Post.

"He says, mamma, he keeps my picture hung up in his office over his desk where he can see it at any time," was Emma's next filial confidence. "He says, if the girl is half as nice looking as her picture represents, she is plenty good enough for him."

By her lover's compliments Emma's vanity was ever more stimulated so that even Sallie began to find her not wholly agreeable. Sallie's fellow was only a common clerk in a grocery store and she naturally objected to comparisons, even when they were only implied. It could not have been truthfully said that Emma wished to be married, especially to a man whom she had never seen. But she dreamed and built air castles which transported her into a magnificent future and was thus so absent-minded that she could not safely be trusted with responsibility.

In less than two months Joseph Rice requested permission to visit Emma and meet her parents. This allusion to Emma's parents beat down the last redoubt of her mother's reluctance. Mr. Rice, anyone could see, was an honorable, upright man who would scorn to do an underhanded act: The reflection that such a fine man was so interested in her daughter could not but inflate the self-esteem of the aspiring Mrs. Post. "If you wish it, child, by all means have him come," she agreed.

Then the hurry and bustle that ensued in their efforts to get ready for the visit. Mrs. Post had grave misgivings about their ability properly to entertain such a wealthy man as Mr. Rice, for by this time he had grown almost to the proportions of a millionaire. Emma got some new clothes and her mother quickly made over her own old black serge gown so that she might make the very best appearance on the great occasion. Tho they had to go in debt, they bot some new china and curtains for the parlor windows and a rug for the spare bedroom. They borrowed Mrs. Brown's silverware. And they both worked till, in its immaculate neatness, the house fairly shone.

The momentous day arrived which was to bring the distinguished visitor. Emma had on her new finery and her mother the old black serge and, looking very nice, they both sat in the parlor waiting

and watching. They heard the whistle blow at last and the train draw into the station, and then the suspense grew almost sickening.

Tho the distance from the station was not more than a five-minute walk, Mr. Rice came driving up to Silas Rice's humble dwelling in a carriage, from which he descended with the air of a lord. He moved with as much dignity as if he had owned the whole town. As the watchers noted, he was dressed in an elegant black suit with silk hat and a diamond shirt stud almost as large as a hulled hazelnut.

As soon as Emma saw Joseph Rice in the flesh, she looked scared and turned deathly pale so that her mother had an awful fear that she was going to "keel right over." But by the time her lover rang the bell she was herself again. Mr. Rice's own unmeasured self-sufficiency and smooth velvety at once put every one in his presence at ease. Emma's mother was delighted and reflected how much easier it is to entertain the very nicest people than the pretentious, the upstarts and adventurers.

"Won't it make a sensation in Cartersville, Silas, when people find out that Emma has a beau from away off and such a rich one?" she privately confided to her husband while she was getting supper.

"I hope that it is all his own money," sniffed Silas, disparagingly.

Mrs. Post ignored her husband's low insinuations—Silas was always ready with his wet blanket. "Anyone can see that he has intentions from the way he looks at Emma. He can hardly take his eyes off her. And he wants to have a talk with us."

As to Joseph Rice's intentions, Silas Post and his wife were not long left in darkness. "I am hunting for a wife," he announced early in the interview. "And from what I see of your daughter, I don't care to look any further. I hope that my being a stranger will not prejudice you against me. I can give you the best of reference and I hope that you will feel perfectly free to write to them. J. H. Banks, President of the Farmers' Bank; C. L. Hanford, dry goods merchant, or Moses Gates, financier—they are about the richest men in Watkins, where my business is. Or you may write to anyone else you choose."

"That is fair enough," conceded Silas at whom his wife darted a furtive but triumphant glance. "It hardly seems fair, Mr. Rice," she laughed, "to be asking questions about you behind your back."

"Oh, that is what I want," complacently urged Joseph; "write to all of them."

Mrs. Post keenly felt the honor done the family. But the yielding up of a beloved daughter, even to the very best husband, was no light matter. The decision of the proposal was finally left with Emma and then her lover knew that he had won his suit.

Mr. Rice had some most important business coming on and it would demand his undivided attention. For this reason he urged a most speedy marriage. Could Emma get ready within a month? She and her mother scouted the idea; they could not get even the bride's clothes ready in that time. But they finally compromised on five weeks and the day was set.

"Don't worry about the money for Emma's wedding outfit," urged Joseph, and to give point to his injunction he handed his prospective mother-in-law a fat roll of bills. "Have everything nice and stylish."

Mrs. Post escaped to the kitchen. "Oh, oh! Two hundred dollars!" she exclaimed and her eyes shone with delight. As Joseph slipped a ring on Emma's finger, he remarked, "You need never be ashamed of it, Emma, sweetheart. It is a real diamond and cost a hundred dollars."

"I have a splendid growing business in Watkins," Mr. Rice further explained to the uneasy Silas, "and I keep a lot of people working for me. After the wedding I think I can give you a place in my office."

"Then we shall all live in the same town after all," felicitated Emma's mother. It was now plain to the most stupid that this marriage was going to be the making of the whole family. How lovely on her own account, too, that Emma was going to marry a man of means.

Silas asked his future son-in-law about his family. "I have a brother out in Nebraska, where I used to be in business," was the reply. "But all the rest are dead." There was an eloquent pause and then the speaker resumed: "I don't think that Emma and I will ever visit my brother in Nebraska. I don't like it out

there and—my brother and I never got along very well. He was jealous of me, I guess, because I always got along so well in business."

"I want Emma to give up her place in the factory," Joseph insisted. In view of the hurry involved with her hasty marriage such urging appeared rather superfluous. It was at once complied with.

Mrs. Post's delight was no longer to be restrained to modest limits. She bragged so much about Emma and her good fortune that, as one of the neighbors expressed it, "a body hardly knowed where to look." It was Mr. Rice here and Mr. Rice there till people had much to do not to laugh in her face. "It is more interesting than any story I ever read in a book," she purred. "And Mr. Rice, I do think, is about as deeply smitten as any lover I ever heard tell of. We can't, to save our lives, hurry up the wedding fast enough to suit him."

All company was tedious where Mrs. Post did not feel free to revel in the joy of her heart. Every day she marveled at the strangeness and suddenness of its coming. If it had been anyone else, she frankly admitted to herself, she would have thot of the danger and foolishness. But after having seen and talked with Mr. Rice, as she and Silas had done, she could not but conclude that Emma was an extremely lucky girl.

Some of Emma's old associates in town made spiteful remarks about the probability of a loose screw somewhere. They hinted that maybe this man Rice had not come honestly by his money. They went further and intimated that, if the truth were known, probably Joseph Rice already had a wife somewhere. This was too much, from even a lot of envious girls. When Emma's mother heard of it she flared up like fire and said: "Any one of them would be only too glad to stand in Emma's shoes."

After all, Joseph Rice was no sooner out of town than Mrs. Post had her husband write to all the references in Watkins—not that there was any ground for suspicion, but only as a measure of discretion. They answered promptly and all said about the same things. Mr. Rice had lived in Watkins only about six months, therefore, they were not much acquainted with him. He had built up a good business in their town and, as far as they knew, he was a very nice man.

All the while Emma and her mother were working like mad to get the wedding clothes ready. Emma as ever was obedient to her mother's every suggestion. Silas did nothing, said nothing, but thru-out the excitement, in the intervals spent at home, sat smiling to himself, apparently as indifferent as if he had not belonged to the family.

The days flew by and at length brot the evening preceding the wedding. The late September sun had dropped below the horizon and the fall chilliness suggested frost.

Emma's bran new trunk stood in her room packed for the journey and almost ready to lock and strap. As a good girl and loving daughter, Emma had shed many a bitter tear over the necessary breaking of her beloved home ties. And even now, in spite of her approaching happiness, her heart was sore. The table in the dining room was spread almost ready for the wedding breakfast, immediately to follow the ceremony, for Mrs. Post was determined to keep up with her duties.

So it was that by the genial warmth of the kitchen range the Post family sat eating supper in the kitchen. Silas, who had just come home from down town, wore a long face and sat winking hard as he always did whenever anything worried him. His wife noted the ominous sign. "What ails you, papa?" she jocosely asked. Even Silas, she recognized, did not find it easy to give up their darling.

Silas hitched himself together. Then with an apprehensive glance in Emma's direction he announced: "Well, I am afraid that we are not going to have any wedding here tomorrow."

"For Heaven's sake, Silas Post, what do you mean?" asked his wife in consternation. "Is Joseph dead?"

"If he only were!" He handed her a newspaper and indicated an article in it on the first page. Then it all came out. Joseph Rice, insurance agent of Watkins, was in jail—for forgery and embezzlement.

For a moment the two women stared at each other, dazed. Then Mrs. Post broke down and cried like a child at the wreck of Emma's hopes. Emma herself was silent and deathly pale but, for her

(Continued on page 182).



## A STORY OF WASHINGTON'S BIRTH-DAY, 1770.

BY MARY L. DANN.

"We're squirming quite lively and I wouldn't wonder if we wriggled out from under the lion's paw altogether," said Farmer Landon, as he watched with satisfaction the Boston dealers, on February twenty-second, 1770, walk up and sign the renewal of their agreement not to import into this country British goods of any description.

"Well, the lion is flitting his tail in a way that tells me he is getting ready to swallow you whole, without pepper-sass or other appetizer," commented Theophilus Lillie, who kept a store down near the old brick meeting house in Boston, and who persisted in importing from England everything he offered for sale.

"If he ever gets us down, he'll have more trouble with his digestion than the whale did when he swallowed Jonah," rejoined Landon, good naturedly, as he buttoned his coat more closely about his sturdy chest preparatory to leaving.

"All this to-do about a paltry difference of three cents on a pound of tea. If I were in your place, I'd drink pennyroyal and keep my mouth shut," flashed Theophilus, jeeringly.

Farmer Landon's face flushed crimson, as he walked over and planted himself squarely in front of Theophilus Lillie. Folding his arms and looking him squarely in the face, he blurted out, "Look a here, Lillie, I feel sorry for you if you don't know any more than that last remark would indicate. I don't believe you know what the words liberty and justice mean. England can gull you so that you are willing to sit with your eyes shut while she forces upon you a corn law that will make the prices so high that the poor of this land will face nothing but starvation. It will be just like you, then, to throw up your hat and cheer for her system of government, that takes the young men to war and leaves the old men and women and children at home to plant and harvest the grain, while the privileged nobility, with horns and hounds, ride over it and tread it down. Then one-tenth of what happens to survive goes to a despotic church, and all the rest, except just enough to keep body and soul together, must be used to feed and pamper a lot of idle, useless lords and ladies whose heads are as soft as their no-account hands."

"Come, come, neighbor Landon," interrupted a bystander soothingly, "this is no place for broken heads and bleeding noses. Let Lillie go home about his business. We all know what he's worth in the market. We're sorry we ever imported him into this country. We ought to have rejected him and sent him back without unwrapping."

The two men turned and walked away and Theophilus went slowly toward his

choking and stuttering in powerless rage. Ebenezer Richardson, who lived next door to Lillie, came out and began to fume. Richardson was known as the enemy of the colonists and had been named by them "Informer," because he was always conveying news to the British sympathizers. The boys, however, had dubbed him just plain "Tattle-tale," and on this occasion they greeted him with hoots of derision as he made his appearance among them. Several teams, with loaded wagons behind them, turned the corner and came down the road past the pole. Richardson rushed out and tried to persuade the teamsters to drive against the pole and break it down, but the men only laughed mockingly.

"That face up there is the spittin' image of yourself, old Carry-news," said one of the drivers, "and it would be too bad to put anything out of the way that looks like you."

Richardson seized the bridles of one of the teams and tried to lead the horses against the post. The driver struck the near one sharply and both reared, sending Richardson rolling into the dirt, the wagon passing without grazing the pole. The boys sent up a tremendous shout, and Richardson, quivering with rage, started after them. The plucky little fellows stood their ground and pelted him with clods and dirt until they drove him into the house.

The people, attracted by the shouting, began to gather about the pole. "That image of Richardson is some handsomer than the old boy himself," cackled a weazened little man in a high voice.

"If we'd stick a dried lemon on the end of a pole we'd have a fine likeness of you," roared Richardson from the house, shying a rock at the thin little man, who side-stepped lively to get out of range.

"Get into your c-a-s-t-l-e," drawled another bystander, kicking loose a frozen clod and throwing it on high at such an angle as to cause it to fall on Richardson's head as he stood on the doorstep.

Choking and infuriated, Richardson tried to voice his anger but only stuttered helplessly.

"He's sizzling just like mother's root beer," laughed a tall lad, impishly, as he executed a few gyrations in front of Richardson.

Richardson could endure it no longer and retreated within his door. A moment later the door was flung open, there was a blinding flash, a sharp report, and one of the bystanders dropped to the ground, seriously wounded. Before the dazed on-lookers could recover from the shock, a window of the Richardson house was thrown open and from it came again the flash of the musket and little Christopher Snider fell, mortally wounded, and the terrible war of the American Revolution had commenced. The red stream gushing from the breast of the eleven-year-old with him in the house at the time of the

shooting, were secured and carried to Faneuil Hall, where they underwent an examination and were held for trial.

Four or five hundred schoolboys in caps preceded the corpse. The relatives fol-

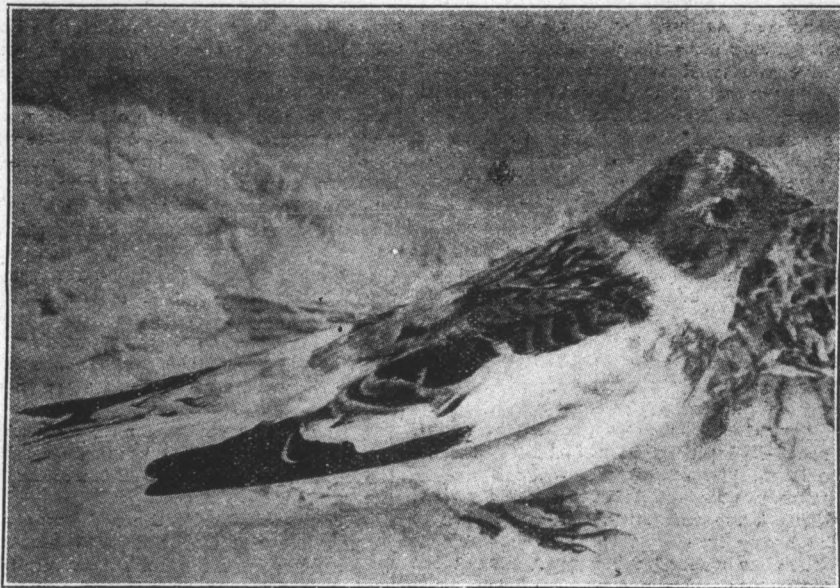
The boy was taken to his home in Frog Lane, where his parents, crazed with grief, watched the ashen hue spread over his small face and felt the little hand in theirs grow cold with the chill of death, all because the promoters of the British cause were clad in armor so thin that the wax-tipped shafts of boyish banter pierced it and goaded them on to dastardly deeds.

Every friend of liberty attended the funeral of this small first martyr to a noble cause. On Monday, February 26, 1770, his funeral took place. The coffin was set down under the old Tree of Liberty, and from there the procession started. The little, flower-laden coffin was borne by six of the lad's play-fellows. Followed the casket, after which came a train of thirteen hundred citizens on foot.

observe it carefully, and consider the way it flies from place to place, one would suppose it would starve. Altho having no visible means of support it lives and thrives wonderfully. Thompson says of the snowflake: "They fly north as far as human feet have ever trod, and then fold their tents."

In appearance it is a trim, pretty creature, living on or near the ground. Its plumage is mostly white; head, tail; wings and under parts, white; upper part brown, streaked with black. It is very refreshing to see these hardy Arctic birds alight on the fences and trees, twittering, driving and chasing one another while old Boreas is sweeping down upon us from the land of "eternal snows." It likes the wild winds, and at such times its happy nature pours forth in pretty songs. It never flies high and is distinctively a ground bird.

When school boys, we used to see them in winter along the shores of Lake Erie



The Snowflake, one of Few Birds that Brave the Cold of the Far North.

Thirty carriages and chaises finished the procession. At the grave all looked their last at the still little body, and, as they lowered it into the dark earth, in each heart was kindled a flame of resentment which burned fiercely thru those long, cold bitter days when the "Old Continentals," in their ragged regimentals, stained the frozen, snowy path to Liberty with their own blood, and which was never quenched until American liberty was proclaimed to the world.

## THE SNOWFLAKE.—(Plectrophenax Nivalis).

BY D. ALDEN LOOMIS, M. D.

This is the snow bunting, and the only forest bird we have that is almost white. It is never seen in the United States ex-

and often ran over the fences and high snow banks trying to catch them. They are sociable little creatures and are mostly seen just before or during a big snow storm. They will enter your dooryards and lawns, remain a few minutes and then quickly fly away. These birds, like all the finches, are small, being about seven inches long. They have a small, conical bill, and their wings reach to the basal fourth of the exposed portion of the tail. The first and second external tail feathers are white; the third is also white, but barred with black. They are very fond of small berries and seeds of grass. Their plumage varies with the seasons. In winter there is a reddish shade over the upper parts, while in the summer these parts are black, with under parts a pure white.

In Greenland they are a staple article of food. The natives kill and dry them for winter use. When they arrive in temperate regions they become very fat, and are a delicacy for the table of the epicure. Their songs are not unlike those of the lark, and when singing they perch near each other.

## GRANDMOTHER'S STORIES.

BY HARRIETTE V. DAVIS.

## How Dolly Rosabell Happened.

The next evening the children were gathered about Grandma's chair ready to listen to her story. Dorothy sat on a low stool leaning her head against Grandma's knee; Bennie was lying at full length on the rug, while I sat in a low chair nearby embroidering a tie to wear with my new shirtwaist. Grandpa was nodding sleepily over his paper and pussy was curled up on his knee, purring contentedly.

Grandma reached for her knitting and patted Dorothy on the head.

"I was just thinking Grandma, that we would like to hear what Arthur did with his fifty cents left over from buying his traps. You know," reminded Dorothy, "you told us that was another story, and it is my turn to choose a story to-night."

"To tell about that I shall have to commence by telling what happened the day before father and Arthur went to town," mused Grandma.

"Mary was about nine years of age. In fact, the following Monday was her birthday. She was of a very nervous disposition and when one of her under front teeth became loose, the last one of her baby teeth, we all took turns bribing her to have it removed.

"No, she would not have that tooth



Indian School Girls in a Fancy Drill—the Costumes were Made by the Girls Themselves.

store, muttering angrily to himself. As he neared the old meeting house he saw before him, close to the beaten track of the road, a long pole, on the top of which was a great, wooden head, made nearly round, on the four sides of which were cleverly carved faces closely resembling himself and three other importers of British goods. Lillie was furious. He was too wrathful to speak, but stood there,

boy was the first to moisten the soil of that rugged path over which our forefathers struggled to glorious liberty, and this upon the birthday of the Father of his Country.

The bells were set ringing and a vast concourse of people were drawn together. Richardson and a seaman named Willmott, who was Richardson's right hand man in all his operations, and who was

cept when the ground is covered with snow. It lives and breeds north of the great chain of lakes, and spends the winter among the snows. It is called the snowflake, snowbird and snowfleck.

All over the far North it can be found and the colder the climate the better it enjoys itself. It belongs to the genus Junco, and, like all winter birds, goes in large flocks, and feeds upon seeds. To



pulled. Hadn't she heard me tell how dreadfully it hurt to have teeth taken out? She would let that tooth drop out of old age. No, she had no use for new dresses, and molasses candy would only make her other teeth ache. Finally, if I would promise not to pull the tooth, I might tie a long stout string to it and maybe after awhile she would pull it out herself.

"John declared that Mary was making a general nuisance of herself. All day long she went about the house with the string tied to her tooth but could not bring her courage to the pulling point, and at night, when father and the boys returned from cutting firewood, the tooth was still there.

"While I was hurrying about the house preparing supper, Arthur, who had finished his work, sat down on the settle beside the fireplace. Mary dropped down near him, resting her head on her hand.

"Mary, does your tooth hurt yet?" inquired Arthur, very solicitously. I glanced sharply at Arthur, for he was of a mischief-loving disposition and a great tease. "Have you tried every way you know of to rid yourself of that tooth?" questioned Arthur. As Mary nodded an affirmative, he asked, "Did you try heat to draw it out?"

"Sitting up with a look of interest, Mary exclaimed, 'Why, no! I never heard of that!'

"I see you have a nice long string on your tooth. Bring your stool and sit down on the hearth and I will show you how it is done."

"Mary complied.

"Now I will tie this loose end of the string to mother's pressing iron," continued Arthur. The iron in question was a very heavy flat-iron, called a goose, that I had placed in a bed of hot coals so it would heat.

"Mary watched Arthur intently as he, with all due solemnity, tied the string to the heavy iron.

"Arthur washed for supper, placed the chairs to the table and then came back to Mary who was sitting on her stool very patiently waiting for the heat to do its work.

"Isn't that tooth any looser yet?" asked Arthur.

"Mary mumbled, 'No.'"

"It cannot be this fire is not enough, then," decided Arthur. Picking up the poker he stirred the fire vigorously and when the poker had reached a glowing heat he dodged it at Mary. She jumped back to avoid it and out flew the tooth.

"Mary was very angry and would not look at, or speak to, Arthur, all the evening. On going to bed she did not want to say good-night. As Grandpa and Arthur arose at two o'clock next morning and started for town, Arthur did not see his sister the following day.

"When Mary arose in the morning, however, she had recovered from her pet and inquired all about the early start for town.

In reply to a query from Bennie, Grandma said, "The early start for town was necessary on account of the slow ox team and the roughness of the road. Grandpa had a heavy grist on the wagon, taking it to mill. He walked beside Buck and Bright, giving them an occasional word of encouragement. The full moon mistily lighted up the dark road thru the forest. Arthur, curled up in the buffalo robes in the front of the wagon, watched for the small clearings, each set with its tiny log cabin, whose twinkling candle light denoted that the housewife was preparing an early breakfast for its inmates.

"All the way to town Arthur's thoughts reverted to the occurrence of the evening before and Mary's anger. He finally decided that he had taken an unfair advantage of her and hoped that he might have some money left, if not more than a cent, that he might bring Mary a peace offering.

"Just before noon they reached the little town which boasted one pretentious frame store, a grist mill and a handful of log cabins.

"As we know, Arthur had fifty cents left. He immediately looked around for something to buy for Mary. On a shelf of the store stood a doll's head. It was of china, with yellow curly hair, blue eyes and red cheeks, not a very large one, but the first yellow-haired doll Arthur had ever seen. There never was such a pretty dollie before, thought Arthur. He inquired the price and, without a pang of regret, parted with his half dollar in exchange for the doll's head.

"The carefully wrapped head was brought home with greater rejoicing on Arthur's part than were the traps he had purchased. Mary had never seen a really

truly doll as she termed it. Her first dolls were gourds, which were hardly worth clothing. Baby pumpkins were carefully carried in from the field, and, the less satisfactory, did very well until one Christmas when, joy of joys, I made her a rag baby. Its head was of cloth, with black yarn ravelled out of a mitten for its hair, black beads sewed on for eyes, and it had black thread eyebrows. Its red cheeks and lips were colored with aniline dye—a poor substitute for a doll, but something for little Mary to hug, to love and to sing to sleep.

"On Arthur's arrival home late that night Mary had been in bed some time and was sound asleep. Arthur very excitedly showed me the doll's head, begging me to make a body for it and to dress it, even promising to do the hated dishwashing if I would only find time to dress the doll so she could have it for her birthday.

"I did the work of making the doll's body and dressing it at night after Mary was abed and asleep. I stuffed the body with bran. A piece of an old kid glove covered its feet and hands. I then hunted up a piece of pale blue all-wool delaine, sprigged with fine pink flowers, and made it a dress. A little blue waterproof cape and hood, such as Mary wore at that time, completed the costume.

"John became interested and spent his evenings fashioning a cradle for the doll, while Arthur made it a little cart that was noisier than a lumber wagon, the wheels being sawed off of a round stick of timber.

"Monday morning, Mary's birthday, we sat the doll in her chair at the breakfast table; the cradle and wagon were on the floor near the table. The one candle did not furnish much light and, as the air was very cold in the room, Mary kept her seat near the fire until breakfast was ready.

"Her joy on finding the doll was almost pitiable, and it was not until breakfast was almost over that she discovered the cart and cradle. Then each and every one of us came in for a share of hugging and kissing. All her grievances toward Arthur on account of the pulling of her tooth had long since been forgotten.

"Mary spent many happy days playing with her new toys. She named the doll Rosabell. It is the doll you girls have played with when you come here to see us. When Aunt Mary married she left the doll here, declaring it so interwoven with the happiest memories of her old home that she preferred to leave it here.

"Therefore," concluded Grandma, "you will always find the doll, with its wagon and cradle, on the shelf in the attic where she put it—close to Arthur's old steel traps."

#### EMMA'S FIRST BEAU.

(Continued from page 180).

years, remarkably calm. She quietly put away all the wedding preparations and sent back all of Joseph Rice's presents—except the money spent, and that she deeply regretted.

In a few days she got a letter from Joseph. He was as innocent, he declared, as the babe unborn. But he had enemies who were enviously trying to ruin him. He had fallen a victim to their low machinations. But, she would see, he would yet be proved innocent.

Yet all his declarations of innocence did not keep the court from sending Joseph Rice to the penitentiary for ten years. In the process of the trial it casually leaked out that he had a wife and three children in Nebraska.

Mrs. Post was too painfully humiliated ever again to mention the affair, even to her most intimate friend. It remained her skeleton in the closet, to be brot out only by her bitterest critic, and the memory kept her henceforth within the range of becoming modesty.

And Emma? After the first shock she was conscious of something wonderfully like relief. She had never wished to marry a man almost as old as her father. In her heart there was no longer a question that all along it had been the freckle-faced Alonzo Curtin, who kept the grocery store around the corner, that she preferred to all others. About his character there were no delusions, no mysteries, because she had known him all her life.

#### THE WORKERS.

BY EUGENE C. DOLSON.

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## A DAY IN DUTCHLAND.

BY EUGENIE T. BENEDICT.

We had decided to play truant on this, our first, morning at the Hague. That point had been settled over our Dutch breakfast of coffee, rolls, jam and chipped beef. What mattered it that the Royal museum was still unvisited, and the Groote Kerk but a name? Both conscience and Baedeker had strongly hinted as to our duty along this line, but we had stifled the one and locked up the other. After four days of Antwerp picture galleries we were mutinous, so we boarded the first trolley car, quite indifferent as to the terminus ad quem. Something unexpected was bound to happen—the more unforeseen the better.

Nothing upon this earth is quite so clean as a Dutch town in the early morning. Do they sit up all night to polish the window-panes and scrub the yellow

Kate, as we found ourselves on a broad, brick-paved promenade extending for a mile along the cliff. "Oh, Madge, what a magnificent beach, so very white and so roomy!"

"Both roomy and hospitable!" I agreed. "Everything breathes a spirit of welcome in some mysterious fashion. Such a crowd, and yet no crowding! The Dutch take their pleasure quietly, as they do all things, and yet they are always ready for a smile or a joke."

Just below us, to right and left, stretched the beach, and in front it seemed a far cry to the water's edge. Back and forth across the sand trundled the bath vans—staid vehicles drawn by solemn horses. Kate called them "dressing rooms on wheels." In the shadow of the cliff-walk nestled a row of square, white tents, their canvas roofs scalloped like pillow shams. Scattered here and there were the oddest affairs, in shape



The Cliff Promenade at Scheveningen, with Kurhaus In Background.

brick pavements? The brass knockers glow with pride, and not a stray leaf falls from the trees. Everything is smiling, from the sun to the babies on the stone doorsteps.

We whirled past fetching shops, decked for the American tourist; along the banks of placid canals guarded by linden trees and crossed by numerous bridges; past villas buried in flowers—a glowing mass of color. On, thru the green shadows of Willem's Park, where the birds had gone crazy with song, and we recalled the old saying, "There is in the Hague and its environs, a tree, a flower and a bird for each of its inhabitants."

Then out from the leafy avenues and into a Dutch fishing village. Such odd houses—pink with brown roofs, or blue set off by green doors and window-frames. Some were quite grand in robes of fresh paint, the windows of others were taking their morning shower, administered by a red-cheeked attendant in brown dress with blue sleeves, an ample apron and white cap, fastened on by big gold pins. Modestly turning our backs

like a gigantic hood with a deep cape. Closer investigation showed them to be beach chairs, cozy shelters from a too stiff breeze. Both tents and chairs were for rent and appeared to be vastly popular. The former could be rented "by day or half-day" and, being equipped with table and chairs, were eagerly sought by family parties. We saw several such groups, the Dutchman with his long pipe, his wife knitting and chatting, while the babies busied themselves in making sand pies at her feet.

Equally interesting was the ever-shifting kaleidoscope on the sands, where we spent a lazy half-hour. The English tourists, note-books in hand, patiently trailed their conductor; German school teachers collected shells and facts with equal ardor, and gay groups of Americans proclaimed by their correct motor costumes the manner in which they were doing the continent. There were college boys in bicycle suits, their faces bronzed by mountain tan; jolly little picnic parties, and everywhere joyous, bare-legged children with shovels, pails and white-capped



Scheveningen Beach—A Day when Beach Chairs were Popular.

upon these ablutions we caught at the same moment a sniff of salt air and the magic word "Scheveningen."

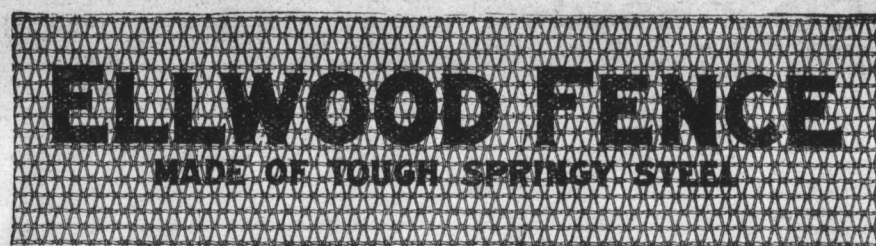
Kate pinched my arm. "To think," she gasped, "that we should so forget our guide book. 'Scheveningen, near the Hague, the most famous watering place in Europe.' We have played truant with a vengeance."

"But have builded better than we knew," I suggested as we left the car. "What a frontage! Hotels, Kursaal, verandas—as a Britisher would observe, 'They do these things rather well over here.'"

"Not forgetting the North Sea," added

bonne. The Dutch flower girl smilingly bore her heavy wooden yoke from which hung panniers of blossoms, and the postcard boy pursued one and all with strict impartiality.

But the enticing prospect of a dip in the North Sea could no longer be resisted, and the change of dress en route was most exciting. It was great fun to enter our van in a "strictly tailor-made" and to emerge in full bathing rig some distance from shore. The sequel to this stimulating plunge was a cozy fish luncheon in the dining room of the Kurhaus, at a window overlooking the cliff. There we studied the Parisian creations of the



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The close 2-in. and 4-in. truss-brace mesh of the Ellwood Fence distributes strain over a wider area than do fences of more open construction, making a long-life fence. Also the hinged-joint construction at every second cable effectually protects the cross or mesh wires by throwing the shock upon the heavy cable wires.

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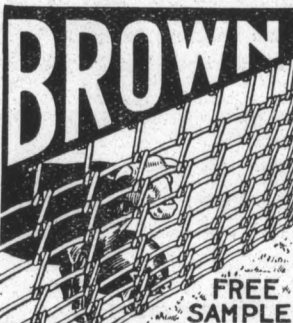
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NOTE.—Dealers everywhere. See the one in your town and have him show you the different designs and give prices. Also get from him booklet entitled "HOW TO BUILD A CHEAP CONCRETE FENCE POST," furnished free for the asking.



## GET A BROWN RUST PROOF FENCE

Don't buy wire fencing with thin, cheap galvanizing. Brown Fences with all No. 9 Coiled Spring Double Galvanized Wires stands and wears like a stone wall. Easy to put up—Requires fewer posts—Won't sag or bag down. 160 Styles.

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Fences for Hogs, Sheep, Horses, Cattle, Lawns, etc. Special Poultry, Garden and Rabbit proof fences with extra close 1 inch spacings at the bottom. You save money and get a better fence.

Send for Free Sample and test it with acid, or file it and see how thick the galvanizing then compare it with any wire fence in your neighborhood. Catalog free.

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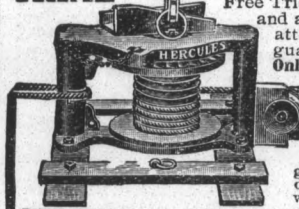
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## 30 Days' FREE TRIAL Hercules Stump Puller

No excuse for stumpy fields. This Hercules is now sold on 30 days' Free Trial. Test it on your place at our risk. Pulls stumps out, roots and all, 400% stronger than any other puller made. Triple power attachment means one-third greater pull. The only stump puller guaranteed for 3 years. Only one with Double Safety Ratchets. Only one with all bearings and working parts turned, finished and machined, reducing friction, increasing power, making it extremely light-running. Hitch on to any stump and the



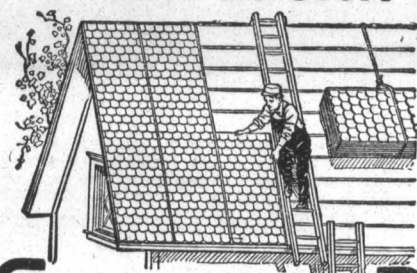
## STUMP IS BOUND TO COME

Also pulls largest-sized green trees, hedgerows, etc. Don't risk dangerous and costly dynamite. It only shatters stump and leaves roots in ground. Save big money; get our FREE BOOKS and free trial offer. Also special proposition to first buyers where we have no agents. Write us a postal card today. Address

HERCULES MANUFACTURING CO.,

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## A Roof That Saves 5 Times Its Cost!



An Edwards "Reo" Steel Shingle Roof outwears four woodshingle roofs and costs only two-thirds as much as one. It wears six times as long as 3-ply composition roofing. It's fire proof and reduces insurance rates from 10 to 20 per cent.

## Edwards "REO" Steel Shingles

Easy to put on. Need only hammer and nails. No soldering—no tarring. Comes in stamped sheets of finest Bessemer Steel, 5 to 10 feet long, covering width of 24 inches, either painted or galvanized.

Buy at Factory Prices. We are largest makers of iron and steel roofing and pay the freight on all Steel Shingles: Plain, Corrugated, V-Crimp Roofing, Imitation Brick Siding, etc. Write for free catalog 150 and ask about our \$10,000 Guarantee Bond Against Lightning.

THE EDWARDS MANUFACTURING CO.

120-150 Lock Street, CINCINNATI, OHIO



Cheaper and more durable than wood. For Lawns, Churches, Cemeteries, Public Grounds. Also Farm and Poultry Fence. Catalogue free. Write for Special Offer.

The Ward Fence Co., Box 441, Decatur, Ind.

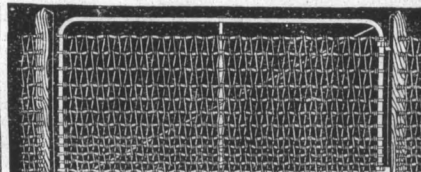


## FENCE Strongest Made

Made of High Carbon Double Strength Coiled Wire. Heavily Galvanized to prevent rust. Have no agents. Sell at factory prices on 30 days' free trial. We pay all freight. 37 heights of farm and poultry fence. Catalog Free.

COILED SPRING FENCE CO.

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## \$.50 Buys Best All-Steel Farm Gate

Cheap as wood. Lasts a lifetime. 12 ft. long; 54 in. high. Resists all kinds of stock. Also Farm Fence, Ornamental Wire and Wrought Iron Fences. Catalogue free. Write for Special Offer.

The Ward Fence Co., Box 336, Decatur, Ind.



## Send for Sample of PAGE WOVEN WIRE FENCE

We offer to send, free of charge, an actual sample of Page Woven Wire Fence, just as it comes from the big looms. Each one is "a sermon in steel." The tremendous success of Page Fence which is now on its Quarter Centennial Year, is due to the fact that its makers have always given full measure of honest value. It is the old reliable time-tried wire fence that outlasts them all. Admitted to be the strongest wire fence in existence.

Send today! See the real Page Wire! Get next to the "Page Knot!" Get the great Quarter Centennial Edition of the Page Fence Catalog and learn the difference between Page Fence and the ordinary kinds. Find what Page Fence means in economy. Write at once and both the free sample of Page Fence and the big Catalog will be sent promptly. Address

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## 14 1/2 Cents a Rod

For 22-in. Hog Fence; 15 3/4-in. for 26-in.; 14 3/4-in. for 31-in.; 22c for 34-in.; 25c for a 47-in. Farm Fence. 50-inch Poultry Fence 33c. Sold on 30 days' trial. 80 rod spool Ideal Barb Wire \$1.55 Catalogue free.

KITSELMAN BROS.

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## LAWN FENCE

Many Styles. Sold on trial at wholesale prices. Save 20 to 30 per cent. Illustrated Catalogue free. Write today.

KITSELMAN BROS.

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## Clear-Headed

### Head Bookkeeper Must be Reliable

The chief bookkeeper in a large business house in one of our great Western cities speaks of the harm coffee did for him:

"My wife and I drank our first cup of Postum a little over two years ago, and we have used it ever since, to the entire exclusion of tea and coffee. It happened in this way:

"About three and a half years ago I had an attack of pneumonia, which left a memento in the shape of dyspepsia, or rather, to speak more correctly, neuralgia of the stomach. My 'cup of cheer' had always been coffee or tea, but I became convinced after a time that they aggravated my stomach trouble. I happened to mention the matter to my grocer one day and he suggested that I give Postum a trial.

"Next day it came, but the cook made the mistake of not boiling it sufficiently, and we did not like it much. This was, however, soon remedied, and now we like it so much that we will never change back. Postum, being a food beverage instead of a drug, has been the means of curing my stomach trouble. I verily believe, for I am a well man today and have used no other remedy.

"My work as chief bookkeeper in our Co's branch house here is of a very confining nature. During my coffee-drinking days I was subject to nervousness and 'the blues' in addition to my sick spells. These have left me since I began using Postum and I can conscientiously recommend it to those whose work confines them to long hours of severe mental exertion."

"There's a Reason."

Look in pkgs. for the little book, "The Road to Wellville."

Ever read the above letter? A new one appears from time to time. They are genuine, true, and full of human interest.

## Malt Coffee

Malted from choicest Montana barley, shipped in strong airtight drums, at **6c per lb.**  
Samples and Circulars Free  
**MILWAUKEE IMPORTING CO.**  
506 37th Street Milwaukee, Wis.

## ELECTRIC Handy Wagons, Steel Wheels.

Save your strength a thousand times with the low lift. Easier on the horses; easier on you. Wagon for all work. No shrinking, no breakdowns or repairs. All widths of tire. 20 to 60 inch wheels. Send for free catalog of up-to-date farm wagons to  
**ELECTRIC WHEEL COMPANY,**  
Box 35 Quincy, Ill.

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This is a Genuine offer to lamp users, made to introduce the **WONDER INCANDESCENT 100-CANDLE POWER Kerosene Oil Lamp** in every locality. Many times **BRIGHTER, CHEAPER** and **SAFER** than Gasoline, Electricity or ordinary lamps for lighting homes, offices, stores, halls and churches. We ask that you show it to your neighbors. If you accept the proposition we will send you one, we will give you a lamp **FREE**. Send your name and name of your nearest express office.

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Largest Lamp House in America,  
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**HARTSHORN SHADE ROLLERS**  
Bear the script name of Stewart Hartshorn on label. Get "Improved," no tacks required.  
**Wood Rollers Tin Rollers**

**AGENTS, 200% PROFIT**  
Handy, Automatic **HAME FASTENER**  
Do away with old ham strap. Horse owners and teamsters wild about them. Fasten instantly with gloves on. Outwear the harness. Money back if not satisfactory. Write today for confidential terms to agents.  
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**AGENTS WANTED**  
Sell our Big \$1.00 Bottle Sarsaparilla for 50 cents.  
**200 Per Cent Profit.**  
Best Seller. Finest Medicine. Complies with pure drug law. Everyone buys. Write now for terms.  
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\$500 to \$1500 yearly. Short hours. Common education sufficient. Political influence unnecessary. Write immediately for Schedule of Spring Examinations. Candidates prepared free.  
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I will furnish the advertising matter and the plans. I want one sincere, earnest man in every town and township. Farmers, Mechanics, Builders, Small business men, anyone anxious to improve his condition. Address Commercial Democracy, Dept. D 30, Elgin, Ohio.

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**R. S. & A. B. LACEY, Dept. 80, WASHINGTON, D. C. Est. 1889**

grandes dames, and discussed our afternoon program.

"Where shall we go?" I asked.  
"First to the casino at the end of the high pier," proposed Kate. "The pavilion is well out in the sea, and we can feast both eyes and ears, as a concert comes off there at three o'clock. After that the souvenir shops."

"And 'after that the deluge,'" I added, vividly recalling past experiences.

"I saw a Dutch lamp which must go home with us," continued Kate, quite ignoring my remark. "And we should pick up a plate or two, also some silver jewelry."

"Well, have it your own way," I conceded as we rose from the table, mentally hoping there would be no time left for shopping.

But there was; Kate saw to that. Even the glory of the coming sunset went for naught and, the concert over, we turned our back on sea and sky.

An hour and a half later we were waiting on the platform for a city-bound trolley. We were accompanied by the Dutch lamp, two big plates, and "just a few" other little reminders of our day off. Kate sighed happily as she turned to me: "Well, Madge, we can truly say, with the old Epicurians, 'For this day we have lived.'"

## THE HOUR BETWEEN THE DAY AND DARK.

BY HOPE LONG DE FERD.

The winter's crimson sun has dropped  
Down in a scarlet west,  
And called behind him his last ray.  
To light no more the snow's bright crest.

The darkness, deepening, turns the snow  
Into a waveless sea of blue.  
And over it my ship of thought,  
With freight of love, floats out to you.

Far in the west the evening star hangs  
With a pure and steady light,  
Waiting to guide the fairy barque  
Safe out to you—beyond the night.

## KINKS.

### Kink I.—Fruits and Plants.

The following kink can be used as an interesting game for a party by dividing the players into "sides," and providing each player with paper on which the questions asked below are written, leaving space after each for the answer. Then allow a brief time for thinking up each answer, and award a blue ribbon honor to the winning side, or else make it a free-for-all contest and award individual prizes, making it against the rule for any to receive any help.

1. What kind of fruit should a blacksmith or a carpenter cultivate?
2. What kind should be gathered early in the morning?
3. What kind late at night?
4. What kind should the traveler use?
5. What plant should dog fanciers raise?
6. What plant do the lame find useful?
7. What plant should shoemakers cultivate?
8. Which plant should bachelors find useful?
9. Which should be raised for babies?
10. Which do shepherds raise?
11. Which are appropriate for the mournful?
12. Which for those who are serene under cutting remarks?

### Kink II.—1910 Magic Square.

Make a square consisting of five lines of numbers, each line to contain five numbers, so that the sum of each perpendicular line, of each horizontal line and of each diagonal line will be 1910. No two numbers in the whole space should be alike.

### Kink III.—Numerical.

- 1—4—5—8 a mineral.
- 3—9—10—6 a trailing plant.
- 2—11—7 a number.

The whole an old-time lover of children.  
**Prizes for Straightening Kinks.**—To the sender of each of the ten nearest correct answers to the above Kinks, we will give choice of a package of 50 post-cards of general interest, an Atlas of the World, or a book, "A Trip to the North Pole." Where contestant or some member of his family is not a regular subscriber a year's subscription (75c) must accompany answers. Answers must not reach us later than March 12, as correct solutions will be published in issue of March 19. Address answers to Puzzle Dept., Michigan Farmer.

### Answers to Jan. 1 Kinks.

- Kink I.—Search for the Pole.**—1. Policeman. 2. Polemonium. 3. Roly poly and North Pole dolls. 4. Pole plate or ridge pole. 5. Marco Polo. 6. Noah Claypole. 7. Tadpole. 8. Polentat. 9. Pole ax. 10. Poland. 11. Polonius. 12. Polecat.  
**Kink II.—Young Farmer Limerick.**—No limerick worthy of publication or of receiving a prize was received. In consequence no prizes are awarded for Kinks of Jan. 1.

I received the premium and back issues all O. K. The premium was just as represented. I have taken the Michigan Farmer over two years and have received much valuable information thru its columns. As an all-around farm paper I have not found its equal.—Chas. Stickney, Hockaday, Mich.

## OUR YOUNG MEN'S COLUMN.

### Hats and Caps.

The hat question is a somewhat vexatious one, particularly for the country young man, for the reason that the hat which he will wish to wear upon dress occasions is not well suited to every-day wear in his business. The country young man will not care to purchase a new hat for every change of season, since the use which he has for a dress hat will not make that necessary, hence it is important that in selecting a hat he should avoid extremes of style which pass as quickly as they come in vogue, and which will appear conspicuous if worn after the fad has passed out.

The derby hat is ever popular, especially with young men and, where a variety of hats are not considered necessary, will properly be the choice of the country young man for dress purposes. While the styles in this type of hat of course vary from year to year, yet in height and shape of crown and in width and roll of brim, the season's style will vary considerably and in these respects it is better to select a medium style than an extreme in either direction, because it will not be so conspicuous in comparison with medium shapes of future seasons if it is found desirable to wear it for more than a few months, as will be the case with most country young men.

Hats, like other articles of wearing apparel, are made in a variety of colors, and colors have been worn more in recent seasons than formerly; yet the black hat is always in good form, and will generally be found more desirable for the country young man for the same reason that a hat of medium style will prove more desirable than one of eccentric style, although where the young man has decided taste for the more common colors, such as brown or buff, he may find it some personal gratification to follow his taste in this respect.

For spring and fall wear, the soft hat has ever retained considerable popularity and where the young man desires to add them to his wardrobe, they will be found both comfortable and useful. Here the lighter shades are more permissible than with the stiff hat, as they are more suitable to summer weather and give the wearer a cool and comfortable, as well as a dressy appearance.

Many people prefer these light felt hats to straw hats, and wear them thruout the summer. However, the average young man likes a straw hat and generally purchases one of the stiff braided straws, rather than the more expensive panamas which are more generally worn by older men.

But in the selection of any of these different types of hats, it pays to get an article of good quality, since the cheaper and poorer grades will not wear to look well and will not give as good satisfaction for the money invested as will hats of at least medium, and preferably of good quality. A great deal depends upon the care of the hats so far as their appearance goes. If kept properly brushed and cleaned they will retain their color and rich appearance much longer, and a clean hat will not spot if exposed to rain as will one which is filled with dust. In soft hats, the quality is even more important as only those of proper material and texture will hold their shape and afford that degree of good appearance which every young man desires.

No country young man is properly equipped with "head-gear" in the winter season unless he has a good cap. Far too many country young men expose their health in long, cold, winter rides because their pride will not permit them to wear a cap suitable for the occasion. Perhaps they have been accustomed to wearing a cap for every-day wear and the sudden change and consequent exposure is certainly anything but beneficial to them. A little further north, this is not so generally true, as those who have visited northern Michigan or Upper Peninsula cities have doubtless observed. There everyone wears caps during the cold winter weather because they are more comfortable and, where that is the general custom, everyone is glad to take advantage of it. Dress caps are now made in a variety of materials combining a maximum of comfort, with a degree of good appearances, which should be favorably considered by every country young man, and such caps should be adopted by them for dress wear at least on all occasions where the wearing of a hat would mean an exposure of their health.

## The Beauty Of Firm Flesh

Lies In the Power of Rich Blood To Keep It Ever Clear And Clean.

### Stuart's Calcium Wafers Free.

The secret of firm, strong, supple flesh is—good, rich constant flowing, blood. When hollow cheeks appear and hidden pigments make the eyes look like burnt holes in a blanket, the blood is sick and out of tune.



The effect of impure and pure blood is seen at once on the face.

Impurities fill it with poisons, the flesh harbors these poisons, and the lungs cannot eliminate them as they should.

It needs a purifier. Stuart's Calcium Wafers give to the blood through the same channels as food all the strength and stimulus necessary to remove the impurities and to make rich corpuscles which will feed the body or fight its enemies.

Time was when poor blood purifiers had to be used, such as herbs and roots, powdered minerals, etc., but thanks to latter day achievement the Stuart process gives to the system the full rich strength of Calcium Sulphide, the greatest blood purifier known to science.

These little powerful wafers are prepared by one of the most noted expert pharmaceutical chemists in the world and so far as science is concerned no expense has been spared to make them perfect.

They contain Quassia, Golden Seal and Eucalyptus, each a most powerful aid to the blood of man.

Thousands of people use these wafers with religious zeal, and their testimonial evidence is an unfailing source of interest to one who reads it.

Melancholy marks every suffering woman, yet one should be armed with this knowledge and make up one's mind to try Stuart's Calcium Wafers at once. Every druggist carries them. Price 50c, or send us your name and we will send you a trial package by mail free! Address F. A. Stuart Co., 175 Stuart Bldg., Marshall, Mich.

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**FUR SHIPPER! YOUR FURS!**  
WE POSITIVELY give you MORE MONEY than any other House. With New York, Canadian and European Buyers and Manufacturers coming to us, our own connections in London, Leipzig, Paris, Berlin, and Russia, located in our own buildings in a small town, with expenses moderate, WE OUT-DO EVERY COMPETITOR. Deal with the **Fur-Catchers Friends**, Est. 40 years. Send for Price-List & valuable illustrated matter. **RUSH YOUR SHIPMENTS TO US.** The demand is strong. **WEIL BROS. & CO., Ft. Wayne, Ind.** CAPITAL \$500,000 PAID. "AMERICA'S GREATEST RAW FUR HOUSE"

**WANTED—FURS and HIDES.**  
We pay you the price on our list. No more. No less! Write for price list and tags. H. M. PETZOLD, 1033 S. Claremont Ave., Chicago, Ill.

**FUR COATS and ROBES**  
Send postal for prices on **TANNING HIDES and MANUFACTURING COATS and ROBES.**  
**MOTH PROOF TANNING Co., Lansing, Mich.**

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**Brooks' Appliance, the modern scientific invention, the wonderful new discovery that cures rupture will be sent on trial. No obnoxious springs or pads. Has automatic Air Cushions. Binds and draws the broken parts together as you would a broken limb. No salves. No lies. Durable, cheap. Pat. Sept. 10, '01. Sent on trial to prove it. Catalog and measure blanks mailed free. Send name and address today.**  
**C. E. BROOKS, 2557 Brooks Building, Marshall, Michigan.**

**RIDER AGENTS WANTED**  
In each town to ride and exhibit sample 1910 Bicycle. Write for special offer. We Ship on Approval without a cent deposit, allow 10 DAYS FREE TRIAL and prepay freight on every bicycle. **FACTORY PRICES** on bicycles, tires and sundries. Do not buy until you receive our catalogs and learn our unheard of prices and marvelous special offer. Tires, coaster brake rear wheels, lamps, sundries, half prices. **MEAD CYCLE CO., Dept. L. 77, Chicago, Ill.**

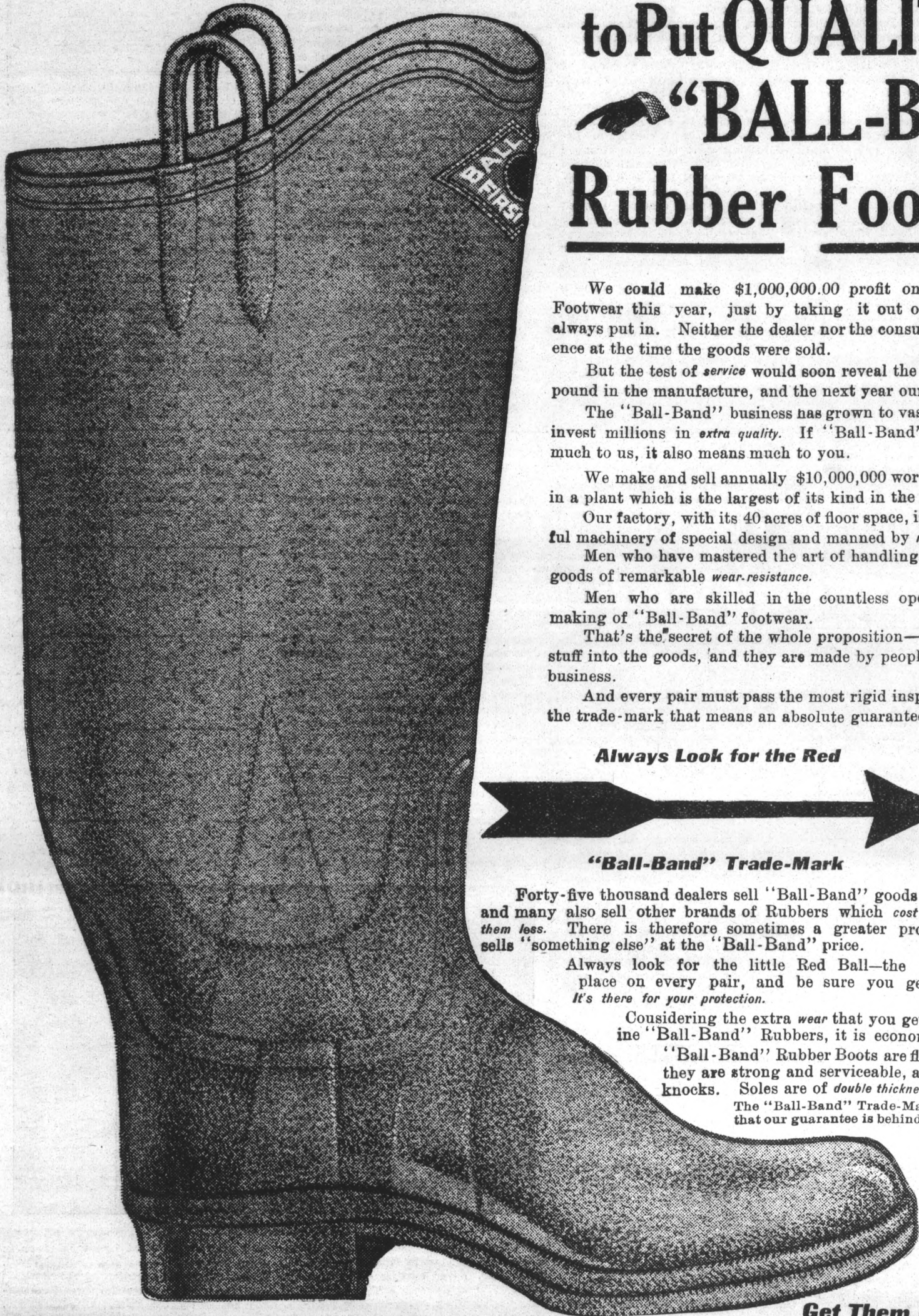
**WANTED—Working FOREMAN on dairy farm.** Will make share arrangement with right man. Registered stock. Fine location. **C. D. WOODBURY, Lansing, Mich.**

**Wanted Agents,** to sell the Farmers' Account Book. Quick seller. Big inducements. Exclusive territory. Address L. L. Syphers, Fort Wayne, Ind.



# We Sacrifice Profits of \$1,000,000.00 a YEAR

## to Put QUALITY Into "BALL-BAND" Rubber Footwear



We could make \$1,000,000.00 profit on "Ball-Band" Rubber Footwear this year, just by taking it out of *quality*, which we have always put in. Neither the dealer nor the consumer could tell the difference at the time the goods were sold.

But the test of *service* would soon reveal the use of an inferior compound in the manufacture, and the next year our sales would slump.

The "Ball-Band" business has grown to vast proportions *because* we invest millions in *extra quality*. If "Ball-Band" quality is worth that much to us, it also means much to you.

We make and sell annually \$10,000,000 worth of Rubber Footwear, in a plant which is the largest of its kind in the world.

Our factory, with its 40 acres of floor space, is equipped with wonderful machinery of special design and manned by *men who know*.

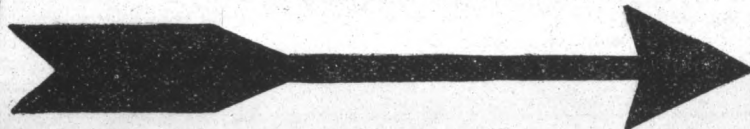
Men who have mastered the art of handling rubber so as to produce goods of remarkable *wear-resistance*.

Men who are skilled in the countless operations involved in the making of "Ball-Band" footwear.

That's the *secret* of the whole proposition—we put the right kind of stuff into the goods, and they are made by people who understand their business.

And every pair must pass the most rigid inspection before it receives the trade-mark that means an absolute guarantee of quality.

Always Look for the Red



"Ball-Band" Trade-Mark

NOT MADE  
BY A  
TRUST

Forty-five thousand dealers sell "Ball-Band" goods and many also sell other brands of Rubbers which *cost them less*. There is therefore sometimes a greater profit to the dealer if he sells "something else" at the "Ball-Band" price.

Look for this on the heel.

Always look for the little Red Ball—the Trade-Mark which we place on every pair, and be sure you get what you pay for. *It's there for your protection.*

Considering the extra *wear* that you get out of a pair of genuine "Ball-Band" Rubbers, it is economy to buy them.

"Ball-Band" Rubber Boots are flexible and comfortable, they are strong and serviceable, and made to stand hard knocks. Soles are of *double thickness* and made to wear.

The "Ball-Band" Trade-Mark on every pair means that our guarantee is behind them. This same trade-mark appears on our lumbermen's socks, knit boots and arctics. Ask your neighbor, who has worn them, what he thinks of them, and when you ask your merchant for "Ball-Band" see to it that you do not get "something else." When you see the red ball you know you are safe. [11]

Get Them of Your Dealer.

## Mishawaka Woolen Mfg. Co., Mishawaka, Ind.

"The House that Pays Millions for Quality."



## WOMAN AND HER NEEDS

### DO NOT PITY THE YOUNG WIFE—

#### It Weakens Her Mind and Body and Makes Her Discontented With Life.

We hear a great deal nowadays about unhappy marriages. Indeed, every paper we pick up contains some reference to a family brawl. The stories of husbands being arrested for non-support, wives being charged with desertion, divorcees asked for or granted, form all too large a part of the reading matter in the daily papers. All sorts of causes are given for this state of affairs, causes which range from the tragic to the ridiculous. In one case we read that the husband came home drunk and threw the baby out of bed, while in the next column we read that a wife has asked for a divorce because her husband ate a crock of cookies in three days' time.

Whatever the cause finally given when the crash comes, I am of the firm opinion that the starting point of the trouble in 99 cases out of 100 is the habit of pouring indiscriminate pity upon every girl who takes upon herself the responsibilities of a wife and mother. A girl marries and starts a home of her own. Immediately her mother begins to fuss and worry because Mary is going to be obliged to give up a good share of her time and settle down to work and the realities of life. So far Mary's life has been a care free one, with only the responsibility of helping mother. She knows nothing at all of what it means to be actually responsible for the smooth running of a house. She has never got up and got breakfast a morning in her life, and has never been obliged to give up any pleasure because there was work which must be done. Mother has always seen to it that her daughter should have as good a time as opportunity and the family pocketbook would allow.

But now everything has changed. Mary has married and is herself the mistress of a home. It is up to her to see that meals are ready on time, rooms swept, beds made, food cooked properly, washing, ironing and mending done, milk taken care of, fruit canned and jellies made and the thousand and one other things done which must be done in a well-ordered home. Probably in addition to this, Mary has to carry in wood and water because John never thinks of it and she hates to ask him. No doubt she looks after a garden and takes care of the chickens and rakes the front lawn. Mother is horrified that the daughter she shielded so carefully must come to this. She never thinks that all her life long she has done all that Mary is doing and done it gladly and cheerfully because it was her home she was caring for. She doesn't realize that probably Mary is cheerfully and happily doing her work because she is in love with work, with life and with her husband. She only sees that Mary is working hard, something she never did before, and immediately mother begins to fuss.

Added to mother's laments are those of grandmother, two or three aunts, and possibly father, tho as a rule father will not be drawn into the argument. If the relatives would only keep still about it things would come out all right, but they won't. Mother carries a long face to Mary's house, urges her not to overwork, calls her attention to things which John might do, and mourns because girls drop all their pleasures and load themselves up with work and worry when they marry. It might be remarked that mother has had a very happy married life, but she doesn't think of it then.

Mary only laughs at mother and declares she isn't working a bit too hard. But the next day or the next week she has a backache, she is tired and a bit blue and mother's words come back to her. She begins to think she has been abused since she got married, and that John expects too much of a woman. Mother has started the mischief which will grow by further feeding, and lead in the years to come to discontent and bickerings, if not actual separation and divorce.

Then the talk one hears when the babies arrive, is enough to discourage any

but the most sensible girl. "Isn't it too bad Mary has to be tied down with a baby?" moans one. "You'll find things changed now," says another, "I guess you won't have your work out of the way quite so early now." "My, but babies make so much work," wails a third. "I don't see why women have to have such cares and burdens." "Whatever are you going to do now?" whines another, "you surely aren't going to try to get along alone." And so the chorus continues. Instead of looking upon the little stranger as a gift from God, the usual attitude seems to be to regard him as a punishment sent to be borne with whatever degree of patience one can assume. Instead of strengthening the young mother by cheerful, happy thoughts, eight women out of ten will discourage her by dwelling on the hard times mothers have with their first baby.

Pity is always weakening, and the pity Mary's friends express for her has a depressing effect. She loves her baby dearly, and is anxious to do her best for it. But the croakings of other women have made her worried, nervous and over-anxious, so she assumes her new, strange work of motherhood in anything but the cheerful, happy frame of mind she should possess. No matter how sensible she may be, the words of her friends will crop out occasionally, to weaken instead of strengthen her.

It is little short of a crime to say anything a bit discouraging to a young mother, as her life is so closely bound with that of her child that any depressing affect upon her nervous system is speedily reflected in the child. I firmly believe that it is nothing but the talk of friends which makes the first baby so hard to feed. The mother is naturally nervous because she knows so little, and the apprehensions of her friends add to her fears which in turn effect her physical system and the baby's food is actually made unfit for him. Everyone knows that a mother should never feed her child immediately after any strong mental shock such as intense fear or anger. Then does it not follow that any mental state of unrest will poison in a lesser degree the baby's natural food?

So I say this habit of pitying the young wife and mother is pernicious in every way. What does a girl expect when she marries? Is it not to take her place in the world as a real factor, no longer to be simply an idler? Surely there is nothing so terrible in work and responsibility that anyone need regard them as bugbears. Everyone must expect to give back to the world what it gives to us in infancy, childhood and youth. We were given life and protection, it is our duty now to pass those gifts along. Then let us stop pitying the girl who takes her rightful place in the world. Give her nothing but cheery and encouraging words. She needs them more now than at any other time.

DEBORAH.

#### WHEN MOTHER STIRS THE KITCHEN FIRE.

BY ELLA E. ROCKWOOD.

When mother stirs the kitchen fire,  
An' takes her apron from the nail,  
We children know that somethin' good  
Is goin' to follow without fail.

Sometimes 'tis crullers, rich and sweet  
Sometimes 'tis pie or frosted cake,  
But mother always gives us some  
An' lets us little patties make.

She makes such wondrous animals  
All cut out from the cookie dough,  
An' boys an' girls, an' roosters brown  
They look like real ones, you know.

Her twisty doughnuts are so nice,  
Her gingerbread an' tarts are, too;  
She bakes cute little ones for us,  
I think my mother's good, don't you?

An' every time when she gets thru,  
The bakin' things all put away,  
She hangs her apron up an' says,  
"Now, children, run away an' play."

An' Dad, he says, when we grow up  
We'll look 'way back an' think again,  
Of the good times we used to have  
When mother made the cookie men.

#### "WARM" AND "COLD" COLORS.

BY E. J. LYNCH.

In fitting up a room choose a color plan for a room and work toward it by degrees. The color chosen should depend to some extent on the location of the room. Certain colors are classed as "warm" and "cold." Among the so-called "warm colors" are red, brown in various shades, olive and yellow-green. Any of these colors are best suited to rooms which face toward the north or east, or which get very little sun. However, avoid much red in any room, especially in wall paper. Colors which are classed as "cold" are blues, blue-greens, mauve, and gray. These are best suited to rooms in which the light comes in from the west and south. Brilliant colors and large patterns are much better avoided in house decoration as well as in dress. For a small bedroom yellow and white make a pretty combination which can easily be carried out. For a parlor, brown in its various shades is excellent. Olive green as a dominant color is one that combines well with several other colors for a parlor. The ground work on wall paper may be in a lighter shade of green and the ceiling white or cream. A dark amber color combines prettily with olive green, as a rule, and so do certain shades of dark blue.

#### CONSTANCY.

BY FRANK J. PHILLIPS.

It is a gem of subtle hue  
That draws our souls together,  
And sparkles in the love-lit eye  
As stormy seas we weather.  
In youth it was a rising sun  
Which taught us true devotion;  
In age it shows our God, our all—  
A star across the ocean.

#### EFFECTIVE ALL-OVER TRIMMING.

BY MAE Y. MAHAFFY.

An effective decoration for shirt waists, aprons and under clothes, as well as numerous household articles, is shown in the accompanying sampler. The sampler in the illustration is made up of lawn and fine net. This combination is of course suitable for certain things, such as waists, baby dresses, aprons, etc., but for underwear it will pay better to use a stronger fabric, cambric or muslin, with a medium sized cable net, as these will stand the wear and tear of frequent laundering more satisfactorily.

Laying out the work is the first step, and this is done by outlining with a soft lead pencil every two-thirds of an inch or more as may be decided upon, for the size of the blocks, being sure not to use an indelible pencil. This part of the work appears in the other cut which accompanies this article, the heavy lines being ruled off both ways according to the size desired. After the blocks are laid off in this way crease the goods thru the center of each series of blocks. With sharp scissors cut thru the crease almost to the ruled lines, appears in the dot-

#### SHORT CUTS TO HOUSEKEEPING.

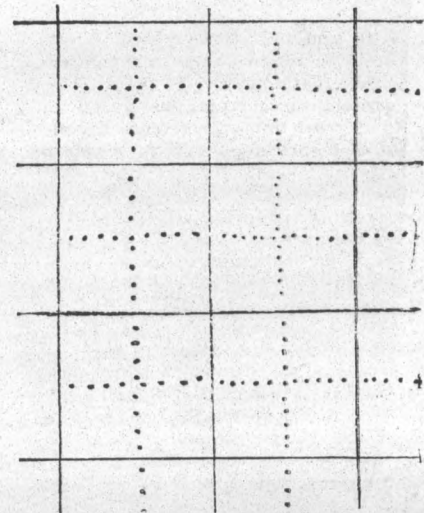
This department is opened as a means for the exchange of new and successful ideas in housekeeping. Every housekeeper is anxious to learn the quickest and best way of doing her work, and is constantly looking for new ideas. If you have what you consider a good idea send it on for the benefit of your sisters. They will do the same by you. Please do not send recipes. Every housekeeper now has more than she can use. But if you think you have the quickest and best way of washing, ironing, sweeping, dusting or doing anything else about the house, please write and tell us about it.

I find it a time saver to remove stains from clothes as soon as they are made, or I discover them. If fruit is spilled on the table cloth, I pour boiling water thru the spot as soon as the meal is over. If ink is spilled, I soak at once in sour milk. If the stains are allowed to set it takes much longer to get them out.—Mrs. F. R. D., Chapin.

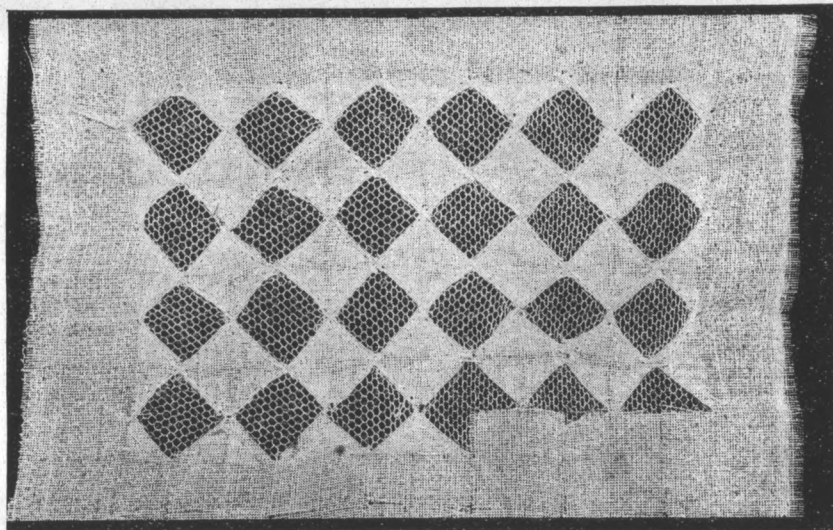
In baking mince pies in winter I make a dozen at a time. This is contrary to the new fangled way of eating only fresh pie, but I have found I can freeze mince pie without spoiling it. So I make 12 pies, set 11 where they will freeze, and when I want one bring it in and warm it.—Mrs. J. M., Chelsea.

In making drawers for small children try running an elastic around the band instead of using buttons and button holes. The fronts may be buttoned to the waists and the back held in place by the rubber band.—Mrs. K. S., Holt.

completed. Turn back the cut points evenly and baste into place. By working right across the goods on half of the blocks only then back on the other half, it will be found an easy matter to baste for a long distance without breaking the thread. When all the blocks are basted



Outlining the Work.



The Finished Article.

ted lines. After cutting one way of the block turn and cut in similar fashion the other way, never cutting quite thru the marked lines, however. Try to get this part of the work as even as possible, as the neat appearance of the finished design depends upon the manner of doing this part of the work.

Now baste the net under the lawn, smoothly and securely. If one prefers not to wash the article before using it place the marked side down on the net, so that it will be on the wrong side when

they may be stitched by machine or in some fancy stitch, as may be preferred. If one begins this portion of the work at one corner and carries the thread diagonally across the blocks to the farther side, then along the edge of one block to the next diagonal row it will save turning corners frequently, thus gaining considerable time, and making the work neater.

Tops for sofa cushions, pin cushions, and similar articles are very pretty in this work, colored linings being used to bring out its beauty to better advantage.



FOOD CLASSIFICATIONS.  
No. 3.

BY MRS. ALTA L. LITTELL.

Foods are divided naturally into two great classes, organic, or those which have possessed life, and inorganic, those which have never lived. The latter class is of little trouble to the cook as it consists of water, salt, iron and the other minerals which are needed by the human system. With the exception of salt and water, the inorganic foods are found in sufficient quantities in the foods we eat.

The organic foods are again divided into three classes, starch and sugar counting as one, fats and oils as another, and the proteids, nitrogenous foods, as the third. Of these, the starch foods rank first, as starch forms 60 per cent of an adult's daily food. This starch which is so necessary for our existence we obtain from the cereals we eat, wheat, rice, corn, oats, barley, tapioca, sago, arrowroot, etc., and from our vegetables, of which the potato is the most important. Sugar we eat as a food but it is also found in many of the foods and in the fruit we eat.

During the process of digestion the starch is changed into sugar by the action of the saliva in the mouth. You will see this if you chew a dry cracker or a bit of dry toast for a few minutes. It will taste sweet, showing the chemical change which has taken place. Thus we see the importance of chewing starchy foods thoroly, instead of, as we usually do, swallowing such foods hastily and chewing meats carefully and long.

Starch and sugar give power and heat to the body and build fatty tissues. For that reason beauty doctors advise lean people to eat plenty of well-cooked cereals.

Fats are found, as we quickly see, in meat, butter, milk, and the oils we eat, as olive oil, peanut oil, and cottonseed oil. They are also found in many of the grains, fat being a constituent of wheat, corn, oats, etc. Oats and corn contain from eight to 10 per cent of fat, this being a larger proportion than is found in the other cereals. Nuts and fish, of course, contain fat and fat is also found in some fruits. Alcohol is classed with fats. Fats and oils are digested in the small intestine by the action of the bile and the pancreatic juice.

The proteid, or nitrogenous group of foods, is of great importance since it contains all elements necessary to preserve life. Lean meat and albumen, found almost pure in white of egg are the best known foods of this group. Gelatine, the casein or curd, of milk, vegetable casein, and the gluten of wheat are also nitrogenous foods. Gluten is the substance which gives tenacity to dough.

The proteids are digested in the stomach by the action of the gastric juice, so the sole reason for chewing meat thoroly is that it may be swallowed more easily. It would be better to instruct children to chew starch foods thoroly, instead of urging them to chew their meat and then let the starches "slip down," as one little chap put it.

The proteids build the constructive tissues, muscles, bone, etc., of the body and they are necessary for the development and growth of the young as well as to repair waste in people of all ages.

The fats, like starch, give heat, power and fatty tissue. Some writers classify fats, starch and sugar in one division.

### Mind Cure As One Woman Has Seen It Work.

BY CHARLOTTE A. AIKENS.

For months, yes, even reaching into years, the magazines have given ample space to what many have called "The Gospel of Health." Because a long list of quacks and humbugs have made fortunes thru their untiring labors to persuade people that all their ailments were either imaginary or could be disposed of immediately by the laying on of hands or when they had faith enough, and have surrounded the whole process in mystery, we are apt to regard with suspicion any suggestion that the body and bodily ailments may be influenced thru the mind.

It is well in everything to avoid going to extremes. It is foolish to try to argue with a man who has the toothache that there is no such thing as toothache. And on the other hand, it is quite as foolish to try to argue that the mind has such a powerful influence over bodily ailments, that thru mental and spiritual processes all diseases may be eradicated. The truth lies somewhere between these

## HOME QUERIES EXCHANGE.

Mrs. King:—To make yeast you can use from year to year boil four medium sized potatoes, in two pints of water until done; then take one-half cup sugar, one tablespoonful of salt, pour the hot potato water over salt and sugar, mash potatoes, put together, then let cool, add one yeast cake after soaking and cork up in a c-n, let stand three days then take the same amount of sugar, salt and potatoes, a gallon crock and water enough for your baking, put in the yeast, let stand over night and take out a can full, put in one teaspoonful of salt, three of sugar and a small poke of hops. About once a month put in what ginger will lay on the end of a teaspoon. Keep in a dark, cool place.—Mrs. A. D.

Mrs. T. G. D.—For a good layer cake take two cups of sugar, three-fourths cup of butter or lard, three-fourths cup of sweet milk, three cups of flour, two teaspoonfuls of baking powder, the whites of four eggs, beaten until foamy, stir well. Bake in four jelly cake pans in a medium oven.—Mrs. A. D.

Dear Editor:—Will you kindly tell me, in your column, how the word ptomaine is pronounced?—Inquirer, Sandusky.

The first letter is silent, leaving the pronunciation "toe-maine" with the accent on the first syllable.

Dear Editor:—Will some one please tell me how I can color a white straw hat brown? And does someone know what is used in starch to give clothes the smooth, glossy appearance of laundry-washed clothes?—G. B.

Dear Editor:—Can any of the readers of the exchange column tell me of a way to darken a rag carpet for kitchen use, that has become faded and light? Is there any way of painting or coloring on floor satisfactorily? Will someone who has experimented tell us thru the exchange column?—Reader, Fowlerville.

two extremes. There is no denying the fact that the mind does powerfully influence certain diseases and has been a powerful factor in tiding many a sick man over a critical illness. If he has confidence in his physician and those who care for him; if he is anxious to get well and sure he is going to get well, the chances are greatly in favor of his fighting a winning battle.

Most recent writers on the subject of how the mind may assist in banishing physical ailments, have tried to avoid the error into which many others have fallen by their neglect to recognize the difference between the two main classes of disease—functional and organic diseases. In any illness a buoyant spirit and a belief in a happy outcome is a help. In functional diseases it may become the chief factor in the cure.

A functional disease is one in which any organ or part of the body fails to do the work for which it was intended, or gives rise to pain and symptoms of various kinds but in which the tissues of the organ are not affected. There is no inflammation, no swelling, no ulceration, no enlargement or destruction of the part. The organ seems to be sound, but somehow it does not do its work properly. That is a functional ailment. An organic disease is one in which the tissues and structure of the part concerned are altered. There may be swelling, inflammation, ulceration, patches of the tissues breaking down; there may be false tissue formed which degenerates and produces a poison in the system as in certain forms of tumor and in cancer. Germs may attack a part as they do the bowels in typhoid fever and eat away patches of the lining; or thru their activities the air cells in the lung may become closed as in tuberculosis. These are illustrations of organic diseases.

It will readily be seen that there is a wide difference in the two classes of diseases. When an organ is not actually changed in any of its parts, but seems weak and unable to do its work, it is possible by means of what is termed "suggestion" or thru the mind, to counteract the morbid condition that is mainly responsible for its failure to do its work.

Everyone with even ordinary observing powers has noticed how a bit of bad news will immediately take away the appetite, showing that the mind does exert a decidedly controlling influence over the stomach. Another homely illustration is the effect the hearing of a certain word has on susceptible people—quite enough to start them scratching their heads.

It is not at all uncommon for medical students when studying certain diseases,

## How to Buy Soda Crackers in the Country

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to have the very symptoms they are studying about. Those who have read Jerome K. Jerome's "Three Men in a Boat," will remember the opening chapter which, tho exaggerated, is founded on fact. The chief actor in the story had been reading a liver-pill circular, which told him how he could tell when his liver was out of order. He had every symptom that was suggested to him.

In a good many forms of nervous diseases there is no organic change in any part of the system but some part of the machinery has gotten into a morbid condition and will not work. Continual dwelling on the condition of any part of the body is very apt to interfere with the working of any organ. Worry—just letting the mind constantly dwell on little trifling difficulties and trials and petty annoyances, will in time powerfully affect various parts of the body thru the undermining of the nervous system. Therefore when we get to the place where we are willing to admit that the condition of the mind may affect the working of almost any organ of the body, it is not hard to understand that thru the mind cures may be effected when the tissues of the organ are not broken down, or deranged. In other words, it is possible to make a man or woman sick by telling him he looks ill, or that he is failing, and it is also possible by getting his mind off his condition, by helping him to form new channels of thought and getting him interested in new things and people, to cause him to overcome many forms of functional diseases, such as "nervous dyspepsia," sleeplessness, headaches of various kinds, hysteria in its many forms; palpitation of the heart, which is usually due to nervous disturbance, melancholia, etc., as well as many diseases which are due to drug addictions.

A great deal has been written about "the sub-conscious mind," or "the subliminal self," which is very confusing to the average reader, but we all know that we are influenced by our manner of thinking. The people who are most afraid of a prevailing disease and who constantly think about it are most likely to be attacked. Long years ago a wise man wrote this truth, which all sorts of people are emphasizing, "As a man thinketh in his heart, so is he."

When we see a child developing an undesirable habit we know that continual talking about the habit is not likely to help him to break it off. We are very apt to say, "Don't pay any attention to it and he will get over it when he finds that no one notices it."

Suppose tomorrow morning you wake up not feeling exactly up to par. Suppose you have been worrying over some real or fancied neglect or slight from somebody. Suppose, instead of dwelling on how badly you feel and relating your symptoms and going over in your mind how badly you have been treated, and dilating on petty annoyances you calmly and deliberately make up your mind that you will not speak of how you feel; you will not worry over what you are powerless to control; that you will "count your blessings" every day and cultivate the habit of happiness. The chances are that the headache or temporary ailment would soon pass away. The counting of your numerous blessings—the things you have that you ought to be thankful for, will go far toward driving out the worry that, if persisted in, day after day, will undermine the strongest constitution. Happiness and health are very closely related, and happiness is a habit that can be cultivated. It is a state of mind which may become a habit by looking at the good in people instead of always seeing their faults; by looking at the bright side of each day's events. We can choose to keep on the sunny side of life. If we do this we have taken a long step toward keeping well. Right thinking, right breathing, right eating and right exercise—habits which all can cultivate, are among the foundation stones of health and happiness.

#### SAVOURY EGGS.

To each egg allow one tablespoonful of cream, one tablespoonful of stock, one teaspoonful of grated cheese and a good pinch of salt and pepper. Beat the eggs lightly with the other ingredients and turn them into an enameled saucepan in which has been melted half a tablespoonful of butter. Cook them over moderate heat, stirring them constantly, and when they begin to thicken nicely turn them out on squares of hot buttered toast and serve immediately.—M. F. Snider.

#### A FATHER'S OPINION OF THE SCHOOL LAW.

Dear Editor:—

In regard to Dorothy's article respecting law, which you term, "Touching a Vital Point in the Training of Children," would say that I am glad to know that people are beginning to find out that there is considerable feeling against such an unjust law.

For centuries, fond fathers and mothers have taken a just pride in the proper rearing and education of their children, looking alike to the physical, mental and spiritual wellbeing of the child. Men and women have been reared, educated, and their lives rounded out, largely thru the wisdom and loving self sacrifice of their parents and grandparents for generations back, until they are a credit to themselves, their ancestry, and a blessing to all mankind. Think of the honest pride the parents and grandparents take in such a life, and in the part they have played, in bringing about such happy results in the lives of their offspring. Also think of the gratitude and love that flows from the younger breast to the parents who have ever been so watchful to the child's proper development. Hence, family pride, hearts all welded together with love and the self-sacrificing spirit, a blessed American home, the bulwark of our great nation. Can mere mental culture, as carried on by law, take the place of all this?

The state has stepped in and torn from the breasts of the father and mother the whole responsibility of educating those dear children. It has also taken out that self-sacrificing spirit, in fact, nearly all the spirit, a large part of the self respect, also the very essence of life, as to do for our loved ones of our own free will, is the very bread of life to those of us who have children.

Now there is nothing left for poor father and mother to do, but to grub, and dig, and raise the necessary funds for the state to run the machine and everything will be attended to, and in a few years we shall have a state full of machine-made men and women with no one to thank for their mental training and refinement but the state. Do you think they will outclass the old-fashioned product? Do you think a child will try harder to make good and please the state, with her cold authority, than to gratify the yearning desire of a self-sacrificing father or mother? Nay, verily!

It might be all right for parents to be expected to give a reasonable excuse for the absence of their children from school. But when the judgment of the fathers and mothers all over this great state is entirely ignored as to whether their own children are physically able to attend school every day for nine months of the year, for ten consecutive years, and the matter is left entirely in the hands of a few doctors who may be too young to know anything of the responsibility in a family of children, or too old and busy to take anything more than an indifferent interest in the welfare of other people's children, then, I think the state has gone a step too far and is trifling with matters that should be settled by the souls that bore those children, alone with their God.

If a bright child were compelled by law to attend school regularly, in open opposition to the expressed wishes of the parents and that child should break down, mentally or physically and those parents should be called upon to follow that child to the asylum or to the open grave, as is often the case where bright children are crowded too hard, what could their feelings be toward the pompous official who had kept the child in school, and who, perhaps, might not be worthy to even look upon the face of the departed child? Also, imagine if you can, their feelings toward the body of men who framed the law that makes such an outrage possible.

It is a fearful thing to step between a man and his God and try to assume responsibilities that he alone owes to his God. No, Dorothy, I do not wonder that you are concerned about the future welfare of our children, but I cannot live a lie before my family to induce them to respect and love a law which I despise, and which they can see is unjust. They would despise me for it and nothing would be gained.

I would rather "stand for the right, as God gives us to see the right," and condemn a wrong, whether found in high places or in low.

Bellevue. A FATHER IN MICHIGAN.

Homes are the nuclei of the nation. They should be guarded with the greatest jealousy.



## WHEAT GROWING OUT IN THE UNION PACIFIC COUNTRY BEATS EASTERN TRUCK FARMING

The farmer here is a business man. He opens up the mellow plains of California with an eight-horse gang-plow that turns over a four-foot strip. Three men on a modern combined harvesting machine can handle 200 acres of wheat with perfect ease, and the crop is worth from 75 cents to a dollar a bushel right where it stands.

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200 acres yield 8,000 bushels at 40 bushels to the acre and means \$6,400 at 80 cents per bushel. A fair estimate of the total expense of harvesting is \$2.50 per acre, which totals \$500 on 200 acres, and leaves an income of \$5,900. Two hundred acres is considered a very small farm out here.

There's no denying that some eastern and mid-west truck farms yield heavily per acre, but even the best of them are dwarfed by comparison with the far-west wheat grower's returns. It is hard to find many truck farmers who can honestly say they get more than \$200 net income per acre after expenses and rent or taxes are paid. On this basis the far-western wheat grower beats him two to one. See this country yourself. Take

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3,000 9x12 best grade Tapestry Brussels Rugs. All colors and beautiful designs. Retail at \$12.50. Our bargain price... \$7.95

OAK DRESSERS from \$7.00 up. PARLOR SUITES from \$9.95 up.  
DINING TABLES from \$3.75 up. OFFICE DESKS from \$5.50 up.  
IRON BEDS from \$1.40 up. KITCHEN CABINETS from \$5.15 up.

"Wears Like Iron."

**WRITE FOR FREE MAMMOTH CATALOG No. 28**  
CHICAGO HOUSE WRECKING COMPANY, 35th and Iron Sts., CHICAGO.

## Elkhart Buggies

are the best made, best grade and easiest riding  
buggies on earth for the money.

**FOR THIRTY-SEVEN YEARS**  
we have been selling direct and are  
The Largest Manufacturers in the World  
selling to the consumer exclusively.

We ship for examination and approval, guaranteeing safe delivery, and also to save you money. If you are not satisfied as to style, quality and price you are nothing out.

May We Send You Our  
Large Catalogue?  
Elkhart Carriage & Harness Mfg. Co.  
Elkhart, - - - - Indiana



Save  
**\$30**

## Get This Money Making American

We have a size to suit your power and requirements. Get one of these guaranteed outfits now. Lumber is high. The mill will soon pay for itself. No experience needed.

**SAW MILL**

No Belts, Springs or complicated parts to get out of order or cause trouble. The sawer has complete control of Variable Friction Feed with one hand; slight motion of lever changes speed. Other time and labor saving devices enable this mill to saw more lumber with less power and less help than any other. Free Mill Book explains and lists our complete line of wood working machinery. Write for it today.

**AMERICAN SAW MILL MACHINERY CO.**  
128 Hope St., Hackettstown, N. J. 1569 Terminal Bldg., New York



## LEARN TELEGRAPHY

**BOTH WIRELESS AND MORSE**

**GOOD WAGES  
EASY WORK**

Big demand for operators—great opportunities now. We are the oldest and largest telegraph school in America and occupy our own large modern building, equipped with R. R. train wire and complete Wireless Station. Teachers are practical experts. Living expenses earned. Easy Payments. Correspondence courses if desired. Catalog Free.

**DODGE'S INSTITUTE, 20th ST., VALPARISO, IND. Est. 1874.**





**UMC**  
**.22s**

**They shoot  
Straight,  
Hit hard,  
and are  
sure fire**

Their reputa-  
tion is earned.  
From the time  
a UMC .22

cartridge starts to be made from a narrow band of copper, trained cartridge specialists watch over and inspect it in every detail of manufacture. Every bullet is made true to a hair's breadth, every bit of powder is carefully tested. And finally a certain percentage of finished cartridges are tried out for accuracy and penetration.

When you buy UMC .22's, you get the best that modern machinery, finest materials and cartridge specialists can give you.

Black, Smokeless, Greased or Ungreased.

Targets Free.

The UNION METALLIC CARTRIDGE COMPANY, Bridgeport, Conn.  
Agency, 315 Broadway, New York City



**Next  
Time  
You  
Go To  
Town**

be sure to ask your storekeeper to show you a pair of Extra Heavy

## PRESIDENT SUSPENDERS

Just give them a try-out as a work suspender. You'll find them so much more comfortable than the rigid-back kind you have been wearing and last so much longer, that you will never want to wear any other kind.

The sliding cord in the back takes all strain from your shoulders, allows freedom of motion, and prevents chafing.

Maker's guarantee on every pair—SATISFACTION, NEW PAIR OR YOUR MONEY BACK. If your storekeeper doesn't have the Extra Heavy Weight, made especially for farmers, we will send you a pair postpaid, upon receipt of price, 50c.

**The C. A. Edgerton Mfg. Co.**  
SHIRLEY PRESIDENT SUSPENDERS  
756 Main St., Shirley, Mass.

**ONE MAN DOES WORK OF TWO**  
With Iron Age Riding Cultivators. You can do it easier and better, because they are built on lines that make this possible. Hoes are under perfect control. Can regulate depth and keep hoe desired distance from growing plants. More advantages in our IRON AGE Booklets FREE.

**IRON AGE**

BATEMAN MFG. CO., Box 101C GREENLOCH, N. J.

**ONION SEED!**  
We are extensive growers of and dealers in choice varieties. Write us for prices.  
SCHILDER BROS., - Chillicothe, Ohio.

**Here's the Easy Way to Dig!**  
Ivan Post Hole and Well Auger does a day's work in two hours! Slips right through water or dry hard-pen, clay, gumbo, sand or gravel with little exertion. Digs 8-ft. post hole in three minutes in any kind of soil. With cheap pipe extension you can dig 50 to 60 foot wells in a day. Works on only successful scientific principle. Name Ivan protects you against worthless imitations. Most dealers will supply you. If yours can't, write us, enclosing his name and we'll send valuable FREE Book "Easy Digging" and name of nearest Ivan dealer. Address [10] Ivan Bros., Dept. U, South Bend, Ind.

(Continued from page 178).

charge the mobs gathered. At Frankfort-on-the-Main a large number were arrested in connection with election demonstrations at that place.

Cotton mills at Guadalajara, Mexico, are shut down because employees are on strike for higher wages.

The suffragettes of England have decided to discontinue their militant campaign believing that the need no longer exists for such campaign work. The effort against the government will be continued, however, along other lines.

Mayor des Planches, Italian ambassador to Washington for a number of years, has been transferred to Constantinople and the present ambassador to Switzerland will become Italy's representative to this country.

The Swedish government is starting a novel scheme to prevent her citizens leaving for other countries, the idea being to present a series of dramas thruout the country that will encourage and promote a national spirit among her citizens. King Gustave has sanctioned the movement.

A German expedition to German East Africa discovered a number of large specimens of human bones among which was one thighbone which measured six feet 11 1/4 inches. The largest specimen ever found in America measured 4 feet, 11 inches.

The Victorian cabinet of Australia has decided to send a mission to this country and England to promote immigration to Victoria.

### National.

Much interest is centered in the investigation of certain bribery cases in New York, and Senator Allds now stands charged with receiving a bribe from parties interested in a bridge concern who desired certain legislation killed.

There is to be a complete reorganization of the federal treasury department and it is expected that an expenditure of \$100,000 will be necessary to make the change. The saving in business methods and expense will amount to, at least, \$1,000,000 a year.

A number of organizations and municipalities celebrated the anniversary of the destruction of the Battleship Maine in Havana harbor, February 15.

The First National Bank of Nortonville, Ky., closed its doors last Saturday. A bill providing for a new form of government for Alaska is before Congress.

The census bureau is collecting information on the live stock population of the country.

No indictments are likely to be announced by the federal grand jury seated in Chicago, for several weeks.

A head-on collision between passenger trains, 18 miles from Macon, Ga., resulted in eight deaths and 20 persons being seriously hurt. The wreck was caused by a disregard of orders.

A resolution was introduced into Congress declaring the recent sale of 55,000 acres of friar lands in the Philippines to sugar interests, to be a violation of the law.

Congress has conferred on Commander Peary, the arctic explorer, the rank of rear admiral as a fitting recognition of his explorations.

The rivers and harbors bill carrying with it an appropriation of \$12,000,000 for improvement of the Mississippi river and its tributaries, is being well received by Congress.

For the first time in the history of the Chicago school board the budget for the forthcoming school year was not reduced by critics appointed for that purpose.

State Insurance Commissioner Barry was upheld by a decision of the Michigan supreme court when a writ of mandamus against him was denied by the court. He objected to certain insurance policies which provided that if any premium is not paid when due, or if any note or part thereof is not paid when due, the policy shall be considered null and void, and all provisions forfeited to the company except as otherwise provided. The court held that this provision was contrary to the statute requirements.

The inter-state commerce commission is probing charges of an excessive nature by a number of different railway companies. The nature of the charges is suggested by one where from \$5 to \$10 was charged by the companies for supplying wooden braces in cars containing fruit and vegetables.

### MICHIGAN CROP REPORT.

Wheat.—In reply to the question, "Has wheat during January suffered injury from any cause?" 74 correspondents in the southern counties answer "yes" and 298 "no"; in the central counties five answer "yes" and 151 "no"; in the northern counties 132 and in the upper peninsula 20 answer "no." Snow protected wheat in the southern counties 3.98 weeks; in the central counties 4.02; in the northern counties 4.11; in the upper peninsula 4.15 and in the state 4.02 weeks.

The average depth of snow on the 15th in the southern counties was 9.97 inches; in the central counties 10.75; in the northern counties 17.84; in the upper peninsula 14.79 and in the state 11.82 inches.

On the 31st the average depth in the southern counties was 8.20 inches; in the central counties 9.96; in the northern counties 20.12; in the upper peninsula 17.71 and in the state 11.18 inches.

The total number of bushels of wheat marketed by farmers in January at 130 flouring mills was 210,097 and at 119 elevators and to grain dealers 192,442 or a total of 402,539 bushels. Of this amount 318,578 bushels were marketed in the southern four tiers of counties; 65,024 in the central counties and 18,937 in the northern counties and the upper peninsula. The estimated total number of bushels of wheat marketed in the six months, August-January is 7,000,000. Seventy mills, elevators and grain dealers report no wheat marketed during January. The average condition of live stock in the state is reported as follows, comparison being with stock in good, healthy and thrifty condition: horses, sheep and swine 95 and cattle 94.

## USE I H C BINDER TWINE FOR SURE-STEADY-ECONOMICAL RESULTS



**D**ON'T experiment with binder twine of low grade or unknown quality. Sisal or high-grade Manila, bearing the I H C trade-mark, should be your choice.

You can be sure that they will stand the necessary strain. They have the quality and quantity of fiber in them that insures strength to spare.

Even-spun, smooth-running, no knots, thereby avoiding tangles in the twine box and consequent waste. These qualities give even tension—which means perfect binding and perfect tying.

Inferior binder twine is dear at any price. It means not only waste of time and poor work, but a waste of the twine itself, possible loss of crop at harvest time; and it is not always full length to the pound. Every ball of I H C twine is

## Guaranteed to be Full Length

And every ball runs smooth and steady so you can use all of it. Remember, we sell grain binders. Naturally, therefore, we are more interested in the quality of twine you use than the twine manufacturer who does not sell binders.

Stick to Sisal or Standard Sisal 500-ft. twine. If you prefer Manila, you economize by getting high-grade Manila 600-ft. or Pure Manila 650-ft. Don't be fooled by a low price. Low-grade Manila costs as much as high-grade Sisal, but isn't worth as much. 85 to 90 per cent of the farmers know. 85 to 90 per cent use Sisal and Standard. In any case, look for the I H C trade-mark to be sure of quality. Choose from any of the following brands: Champion, Deering, McCormick, Milwaukee, Osborne, Plano, International.

Better let your local agent know well ahead of time how much you will need. Meanwhile, if you want more interesting facts on binder twine write us for particulars.

INTERNATIONAL HARVESTER COMPANY OF AMERICA

Chicago

(Incorporated)

U. S. A.



**I-H-C LINE**

LOOK FOR THE I. H. C. TRADE MARK. IT IS A SEAL OF EXCELLENCE AND A GUARANTEE OF QUALITY.

## Don't Pay Tribute to a Trust

If you had a pair of rubber boots made to order, you couldn't have them made any better than

## The Century Boot (Gold Cross Brand)

No matter how carefully they were made, you wouldn't secure a better wearing boot. CENTURY Boots are made of fine rubber—the best rubber produced in the world. The vamp is made extra strong by forcing, under powerful hydraulic pressure, rubber into the best quality of canvas duck. To prevent cracking at the ankle (like ordinary boots) an extra pure gum, no-crack ankle reinforcement is used.

Century Soles are made of the toughest compound known. This sole is so compounded and vulcanized that it will rebound when it strikes a hard substance rather than chip off, as the soles of an ordinary boot would do.

### Century Boots Are Cheapest

because best—best in material, best in workmanship, and best for wear. Look for the name Century and Gold Cross on the boot. When you want any high-grade satisfactory rubber boot or shoe, ask for the Gold Cross line. It insures you quality and service.

If you can't secure CENTURY Boots from your dealer, write us and send his name, we will see that you are supplied.

The Beacon Falls Rubber Shoe Co.

New York

Chicago

Boston

Look for the Gold Cross



# NOTICE

## TO R. F. D. PATRONS. SOMETHING NEW!

We have a device for purchasing supplies, such as stamps, envelopes, post cards, money orders, etc., without your personal attention to carrier when he comes. No more waiting for carrier when supplies are needed. Carriers troubled no more picking coins from bottom of boxes—just completes your mail box. A bonanza for agents. Send 25 cents for sample and terms to agents. Every farmer buys. Boys can sell the device as well as men, as they sell at sight. Address F. H. COLE & CO., Perry, Michigan.

## PRAIRIE LAND

with some timber. Best location in Canada for grain and cattle. Good climate. A PROVEN COUNTRY, with railroads, civilization and good markets. This is the place to make money. Come and see for yourself the fine weather, tall grass, big crops. Easy terms. Cheap excursions. Our map and folder explain Canadian conditions with absolute truthfulness. Write SCANDIAN LAND CO., 172 Washington St., CHICAGO.

## 70c up to \$4.25 Buys the Most Useful Article Any Farmer Can Own

It is the great Burr Automatic Safety Tackle Block—the one rope tackle block that does a chain block's work. One man can do the work of four in changing wagon boxes, lifting injured animals, stretching wire fences, and many other farm jobs that need strength. It has no teeth, wedges and eccentrics to bite, tear and wear rope. It locks unfailingly and holds firmly and safely on greasy and wet rope, and in any position—even up side down. The simplest, strongest, handiest farm help ever invented. You couldn't afford to be without it if it cost twice the money. Capacity, 600 up to 5,000 lbs. Write today for catalog and complete instructions. **BURR MFG. CO.** 133 Viaduct, Cleveland, O.

## FOR SALE—REBUILT MACHINERY!

18 h. Huber traction engine; 18 h. Peerless; 16 h. Gaar-Scott; 16 h. Huber; 12 h. Huber; 10 h. Nichols & Shepard; 17 h. Hart Parr gasoline engine; 60 h. Fire Box boiler; 38-inch Peerless thrasher; 30-inch Red River Special; 16x18 Square Deal hay press; 17x22 Ann Arbor; 14x18 Geo. Engel, and many others. Write us for description and price.

**THE BANTING MACHINE CO.,** 114-118 Superior Street, Toledo, Ohio.

**"MORE POTATOES"**  
From ground planted secured by use of the KEYSTONE POTATO PLANTER than by any other method of planting. Work perfectly accurate. A simple, strong, durable machine. Write for catalog, price and full description.  
**A. J. PLATT, Mgr** STERLING, ILL.



# Coupons Pouring In!

## Everybody Buying at the New Cut Prices

**Your Coupon Is in the Lower Left Hand Corner of This Page. Fill It Out NOW!**

We believe the Economy Chief is the best and most satisfactory cream separator on the market today, regardless of price. We believe it to be the best in design, the closest skimming, the easiest running, the quickest cleaning; in short, the greatest separator value that money can buy. We have absolute confidence in the Economy Chief and we want every owner of cows to share this confidence with us. We want everyone interested in buying a cream separator to have an opportunity to find out for himself which is the best machine, which is THE SEPARATOR TO BUY.

### Here Is the Challenge Offer That Is Bringing in the Orders by Every Mail

**Deposit in your local bank the price of the Economy Chief Cream Separator you want to try, or**

**Send us a letter of reference from your banker stating that you are a reliable person; then**

We will ship to you at once, freight prepaid, the separator you order, with the understanding that you are to set it up and try it on your farm for sixty days. Give it the hardest kind of a test; if possible try it alongside some other well known standard make, such as the Empire, United States or De Laval. Compare our machine in actual operation with any other. Note the amount of cream you get from each. Compare ease of running, time consumed in cleaning, and make any other comparisons you can think of. Never mind about the price; what you want from a cream separator is CREAM. If any other machine selling even as high as \$85.00 or \$90.00 will do better work, will skim closer, will give better satisfaction than our Economy Chief at \$42.50, our advice to you is, buy the other machine and send ours back.

When you have finished your sixty-day test, if you are perfectly satisfied that you have the best separator on the market, write us saying that you want to keep the machine, and we will send you a bill for your separator and the freight charges we paid on it.

If at the end of sixty days you are not satisfied that the Economy Chief is the world's best separator, you don't need to even tell us the reason for your dissatisfaction unless you wish to; just drop us a line saying you don't want the machine. We will then send you a return address card to tack on the box and we will not only return all money sent us, but also pay you for your time and trouble in setting up the machine, repacking it and hauling back to the station. We don't want you to lose one penny in trying out the Economy Chief for sixty days.

If you want to send cash with your order, as most of our customers do, you won't lose any of the benefit of the above CHALLENGE OFFER, for if at the end of sixty days you decide you don't want the machine, if you think after a sixty days' trial you can get along just as well without a separator, or if you have seen a separator in operation giving better results than the Economy Chief, just send it back at our expense, tell us how much we owe you for freight charges, hauling from and to the station, setting up and repacking, and we will promptly send you every cent of the purchase price, plus your bill.

### This Is Our Challenge Offer and Our Whole Cream Separator Proposition!

We think our Economy Chief Separator is the best machine in the world. We want to sell you an Economy Chief if you think the same as we do, not otherwise, and we make this challenge offer to give you a chance to find out all about the Economy Chief at our expense and to prove our confidence in our own machine.

**IF THE MAKER OF ANY OTHER CREAM SEPARATOR IN THE WORLD BELIEVES IN HIS MACHINE AS WE BELIEVE IN OURS, LET HIM MAKE YOU THE SAME PROPOSITION WE DO.**

**That's all—Now fill out the Coupon!**

### FILL OUT THIS SPECIAL ORDER BLANK

☐ **CASH WITH ORDER.**  
If you are enclosing the full price, simply write the amount in this square.

☐ **CASH IN BANK.**  
You can deposit the purchase price of the separator with your local banker, to be held by him for a month while you are trying it. If you follow this plan make an X mark in this square and enclose your certificate of deposit signed by your banker.

☐ **BANK REFERENCE.**  
If you prefer not to send us the money, or to hold it in the bank subject to our order, make an X mark in this square and enclose a letter of reference signed by your banker, telling us that you are a responsible property owner.

☐ **FREE DAIRY GUIDE.**  
Nearly everybody has a copy of our big General Catalog or our Cream Separator Catalog, but if you have not and want more information before ordering, make an X mark in this space.

Name \_\_\_\_\_

Postoffice \_\_\_\_\_ State \_\_\_\_\_

Shipping Point \_\_\_\_\_ State \_\_\_\_\_

R. F. D. \_\_\_\_\_ P. O. \_\_\_\_\_ Street \_\_\_\_\_  
No. \_\_\_\_\_ Box No. \_\_\_\_\_ and No. \_\_\_\_\_

Send me by freight on trial \_\_\_\_\_ Economy Chief Cream Separator

Size \_\_\_\_\_ Price \_\_\_\_\_  
Ohio and Mich. Farmer (Please write plainly and carefully.)

### Reduced Prices for 1910

**WE RECOMMEND THE BIG 600-POUND SIZE**

No. 23T51 New 1910 Economy Chief. Capacity, 250 to 300 pounds, or 120 to 145 quarts per hour. Price reduced to.....	<b>\$27.90</b>
No. 23T52 New 1910 Economy Chief. Capacity, 350 to 400 pounds, or 170 to 195 quarts per hour. Price reduced to.....	<b>33.80</b>
No. 23T54 New 1910 Economy Chief. Capacity, 600 pounds, or about 290 quarts per hour. Price reduced to.....	<b>42.50</b>

## SEARS, ROEBUCK AND CO., CHICAGO, ILL.



## GRANGE

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

### "CITY FARMERS" AS GRANGE MEMBERS.

In nearly every section of the state the Grange is constantly receiving additions from a class of people who, as a rule, bring with them a distinct advantage, both to the Order and to the previous membership. The exchange of benefit, moreover, is mutual. These new members are from the rapidly increasing number of city people who, for one reason and another, come to make their homes upon farms. They are not confined to any one location; neither are they drawn to the country by the same motive. In some instances failing health of one or more members of the family made it necessary to seek the open country, the quiet or the physical exercise required by an outdoor life. In some cases business openings with agricultural projects furnished the attraction. In others, love of independence, association with growing things, the peace of the hills and music of winds and trees have attracted irresistibly and made work on the farm preferable to that of any other location. Perhaps the larger number of these people are those who combine an intense love for nature with capable business foresight and executive ability, and who see financial possibilities in a specialized farming that affords them just the combination for a home that to them seems ideal.

With few exceptions, the aim of the Grange appeals to such newcomers. They have been accustomed to social activity in their former relations and know its necessity better than those who have labored for a livelihood without truly living in its broader sense. They often view the environment of the neighborhood in which they settle with a keener insight into its tendencies than we who may have lived in it for years. On the other hand, often they are mistaken in their first hasty conclusions and misjudge the community until a closer acquaintance changes their opinion. In the main, these people come to the country with frank and open minds and with a genuine desire to become ingrained in the neighborhood life.

Right here the Grange affords the ideal meeting place for the old and new residents—the country reared and the town trained. Its plan strikes the business person with its practicability. Its objects appeal to the thoughtful as of the highest quality. Its social opportunities attract the lonely. Its teachings of the interrelations existing between material and mental growth impress the spiritually discerning as true and uplifting.

The enlistment of all such people, who may be thus inclined to the Grange, is desirable. It results in mutual benefit. They give as much as they gain and all the better if what they contribute is of a slightly different coin. Their training in affairs, their social habits, their other viewpoints and varied associations broaden the staid, less lively flow of rural life and that. On the other hand, if they "ring true," they will delight in the unconventional wisdom, unadulterated, kindness and blunt candor to be met with just inside the door of almost every real live Grange.

JENNIE BUELL.

### AMONG THE LIVE GRANGES.

**Another New One in Eaton.**—National Deputy Wilde organized West Benton Grange in the western part of Benton township, Eaton Co., Tuesday evening, Feb. 8, with the following officers: Master, John Lipsey; overseer, Leonard Cole; lecturer, Mrs. J. F. Lipsey; steward, Andy Root; assistant steward, Geo. Rogers; lady ass't steward, Mary Rogers; chaplain, J. O. Kingman; treasurer, S. C. Goodrich; secretary, H. J. Haigh; gate keeper, Leo Goodrich.

**The Business Side of Farming,** and why special accounts should be kept by the farmer, was discussed at a recent meeting of Deer Lake Grange, of Charlevoix Co. It was the consensus of opinion that the farmer ought to keep a record of all the time he puts in on his farm, also a record of all his receipts and average them up each year. When he has done this four or five years, an average of the yearly amounts will tell him what his farm will allow him to pay for his help, as some farms would do better if conducted differently. The eyes of many farmers would be opened if they took up the business side of farming.

**Story of Marion Center's Progress.**—Marion Center Grange No. 956, was organized at Marion town hall Feb. 1, 1902, by E. B. Ward, with forty charter members. E. B. Ward was elected the first master, Mrs. Ingalls, secretary, and Ida

Ward, lecturer. The next important date in the history of this Grange occurred Dec. 27, 1905, when the committee reported the purchase of a lot upon which the Grange could erect a home. Oct. 31, 1906, the building committee reported that work had been commenced on the hall. June 25, 1909, the records show the first meeting was held in the new hall, which is one of the finest in the state. It is built of cement blocks with a complete kitchen and dining room in the basement. While all the members should be given due credit for the Grange hall which they have builded, the ladies' auxiliary should be given the lion's share. Throught the records from the first meeting, the names of Ward, Burns, Withers, Walter and Henry Black, Shapton, George, James and W. J. Meggison, Elmer Ingalls and others are always found at the front in pushing the work of the Grange. E. B. Ward, who organized the Grange and was its first master, continued in that position until last January when he voluntarily retired. William Withers, one of the solid farmers of Marion, being elected in his place.

**Eaton County Pomona Grange** assembled at Munger Hall, in Charlotte, Saturday, Jan. 22, with an overflow attendance. Pomona Master E. G. Pray presiding. Charlotte Grange is to be congratulated on its fortunate change of location to the hall mentioned where it has combined assembly and dining rooms, with elegant finish, excellent lights, large ante-rooms, kitchen, and all other needed conveniences.

The morning session opened in the fifth degree with the initiation of a class of eleven. The work was done by the Charlotte degree team with a dignity and perfection of detail that was impressive.

At noon came the usual bountiful Grange banquet, with State Master Hull and wife guests of honor. Then followed an after-dinner program in charge of F. E. Hay, Pomona lecturer. First, "Our State Master," with an extended humorous response by Rev. St. Clare Parsons, of Vermontville. Second, "The Master's Wife," responded to by Mrs. Palmer, of Charlotte, an eloquent tribute to Mrs. Hull, interspersed with items of original poetry given with vigor and elocutionary skill. Third, "Co-operation the Grange Ideal." The response was an ably-written essay by Mrs. Crandal, of Vermontville. Fourth, "Eaton County the Grange Hub and Wheel." Response by Brother Andrew Kelly, of Bellevue. Fifth, "What the Grange expects of its members and what its members expect of the Grange." Broadly discussed by Brother Clark, of Olivet. Sixth, "Grange Opportunities and possibilities." Discussed by State Master Hull in an entertaining thirty-minute address.

### COMING EVENTS.

#### Pomona Meetings.

Genesee Co., with Flint Grange at its hall in Flint township, Friday, Feb. 25.  
Lapeer Co., with Almont Grange, Saturday, Feb. 26.  
Osceola Co., with Triumph Grange, Friday, March 4.  
Gratiot Co., with Ithaca Grange, Saturday, Feb. 26.

## FARMERS' CLUBS

### OFFICERS OF THE STATE ASSOCIATION OF FARMERS' CLUBS.

President—B. A. Holden, Wixom.  
Vice-president—Mrs. C. A. Mathews, St. Johns.  
Secretary—Mrs. C. B. Johnson, Metamora.  
Treasurer—Henry T. Ross, Brighton.  
Corresponding Secretary—Clayton Cook, Owosso.  
Directors—T. B. Halladay, Norvell; E. C. Hallock, Almont; A. R. Palmer, Jackson; Wm. H. Marks, Fair Haven; C. L. Wright, Caro; E. W. Woodruff, Blanchard.

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.

### THE POSTAL SAVINGS BANK.

Address of Mr. C. L. Wright, of the Ellington-Almer Farmers' Club, before the State Association of Farmers' Clubs.

In discussing the postal savings bank or depositories, the theory is absolute safe guarding the deposits and inculcating in the laboring classes a habit of thrift and saving not common among this class of citizens in the past. To gain these points it is necessary to have their full confidence in your ability to do what is promised, viz., pay back every cent intrusted to your care, and what better guarantee can they have than that afforded by a postal savings bank system as incorporated in Senate Bill 6481, better known as the Carter Bill and House Bill 21,263 introduced by Mr. Burton, of Delaware, these two bills are to all intents and purposes the same.

The question of postal savings banks is one that has occupied the attention of financiers for several decades and is one that is not yet settled.

Viewed from the point of stability and safety, there can be but one conclusion arrived at and that is that for security

and the full confidence of the people, the postal savings bank solves the much mooted question of money circulation.

Of the three and a half billions of savings deposits in the United States, 14 states in all, including New England, New York, New Jersey, Pennsylvania, Maryland, Illinois, Ohio, Iowa and California, you will find 98.4 of these entire savings deposits, leaving for the remaining 32 states but 1.6 per cent. From this showing in the 32 states, and possibly in some of the 14, the postal savings bank would be instrumental in affording the people an opportunity for placing their money in safe keeping. Of the amount that I have referred to, not one dollar of commercial deposits is included.

One of the objections to the postal savings bank or depositories is that private enterprise can afford all the savings banks necessary. In answer to this, I call your attention to the fact that from statistics of the postoffice department, that in all the 12 northern, eastern and middle states where population is densest, and where private savings banks are greater in number, there are today only 620 mutual savings banks and 140 commercial savings, 760 in all, covering a population of over 30,000,000, or on an average of one bank for every 40,000 population.

In these 12 states there are 5,720 money order postoffices where there are no savings banks of any kind. Surely the people around these money order offices need savings banks, but private capital has not seen fit to furnish them.

In the 13 southern states there are only two mutual savings banks and 110 commercial savings banks, 112 in all, covering a population of 18,000,000. There are in those 13 states, 3,980 money order post offices, where there are no savings banks of any kind.

In the 16 western states there are only seven mutual savings banks and 420 commercial savings banks, with a population of 32,200,000.

There are in those 16 states 6,771 money order offices where there are no banks of any kind. The four pacific states have 20 mutual savings banks and 50 commercial savings banks, 70 in all, with a population of 3,000,000. In these four states there is \$62 money order offices where there are no savings banks.

In short, in the 33 southwest and pacific states, with a population of over 53,000,000, they have altogether 609 savings banks, or one bank to every 84,000 population. Not one in 500 can or do deposit in these banks. Would this be the case if there were postal savings depositories at every money order office? I think not.

The state of New York has over 38 per cent of all the savings deposits of the United States. Why? Because her laws governing savings deposits in banks are most stringent and drastic, safeguarding the meagre savings of the laborer and frugal poor. On the other hand, what protection does the laws of this state of which we are so proud, Michigan, afford? Our state laws compel all banks under state control to have a reserve fund of not less than 5 per cent of all monies on deposit.

What a munificent sum to pay off the depositors with, \$50.00 in \$1,000. No wonder that Mr. Reynolds, president of the National Association of Bankers, in session in Chicago, ridiculed the idea of people depositing money with fourth-class post-masters where there is such a chance to go in the banking business and fail and pay off your indebtedness at five cents on the dollar.

What better security would I ask on this earth of ours than that backed by the government of the United States?

In Great Britain, where postal savings banks have long been in successful operation, there is one depositor to every five of population, more than one depositor to every voter. The fact that at many of the points where there are a number of foreigners, they go to the local postoffice and take out money orders payable to themselves, pay the fees for the money order in preference to depositing in some of the banks at 3 or 4 per cent interest. They turn to the postoffice department to safeguard their meagre savings.

Would it not be a bulwark of defense against panic and financial crises? Runs would not be made upon postoffice banks nor would their doors or coffers be closed against a depositor's draft so long as a dollar remained to his credit on his pass book. Their funds would constitute a reserve upon which the masses could implicitly rely in times of financial disaster and business depression and, finally, it solves the problem of safety, stability and the oft-recurring stringency in financial affairs.

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Box 49 Watertown, N. Y.

Dear Sir:—Please send me free of all cost your New Discovery for the Cure of Rupture.

Name .....

Address .....



# MARKETS

## DETROIT WHOLESALE MARKETS.

February 16, 1910.  
Grains and Seeds.

**Wheat.**—The great factor in price making the past week, has been news of crop conditions in the southwest. And the fact that these reports showed the crop there to be in a very poor condition, which reports were substantiated by heavy buying on the part of millers from that section, caused prices for the week to average better than those of the former period. Many traders were of the opinion that the news was being sent out too early and that far less credit should be given on this account, but the trade appeared to respond to the news, especially with regard to futures. The primary receipts have been heavy. Millers all over the country are willing buyers and the flour trade has an active demand. One year ago the price for No. 2 red wheat was \$1.18 per bushel. Quotations for the week are as follows:

	No. 2	No. 1	May	July
Thursday	1.24 1/4	1.24 1/4	1.24 1/4	1.05 3/4
Friday	1.24	1.24	1.24 1/4	1.05 1/4
Saturday	1.24	1.24	1.24 1/4	1.05 1/4
Monday	1.25	1.25	1.25 1/4	1.06 1/4
Tuesday	1.25	1.25	1.25 1/4	1.06 1/4
Wednesday	1.26	1.26	1.26 1/4	1.07 1/4

**Corn.**—Corn values have been fluctuating with the changes in wheat prices. The corn trade at Chicago has been active with a stronger tone in the trade than was shown the previous week. The local trade is steady with values pointing upward. Receipts have been fairly liberal here. There is a good demand for corn in all feeding sections. One year ago we were paying 55c for No. 3 corn. Quotations for the week are as follows:

	No. 3	No. 3	Yellow
Thursday	63	64	64
Friday	64	65	65
Saturday	64	65	65
Monday	64	65	65
Tuesday	64 1/2	65 1/2	65 1/2
Wednesday	65 1/2	66 1/2	66 1/2

**Oats.**—The market has been a little easier this week owing to the heavy receipts and to a disposition on the part of holders to liquidate their stocks. The average price is slightly below that of a week ago. The visible supply is not materially changed from a week ago. The price at this date last year was 55 1/4c per bu. Quotations for the week are as follows:

	Standard	No. 3
Thursday	49 1/4	48 1/2
Friday	49 1/4	49
Saturday	49 1/4	49
Monday	49 1/4	49
Tuesday	49 1/4	49
Wednesday	49 1/4	49

**Beans.**—There is no change in the conventional figures given out by the board. No sales are reported. The nominal quotations are as follows:

	Cash	March
Thursday	\$2.15	\$2.20
Friday	2.15	2.20
Saturday	2.15	2.20
Monday	2.15	2.20
Tuesday	2.15	2.20
Wednesday	2.15	2.20

**Cloverseed.**—Prices here have remained steady thruout the week. There has been an average amount of selling. The demand from country places is becoming evident. Alsike remains steady and is in fair demand. Much of the selling is by sample. Quotations for the week are as follows:

	Prime Spot	Mar.	Alsike
Thursday	\$8.30	\$8.30	\$7.50
Friday	8.30	8.30	7.50
Saturday	8.30	8.30	7.50
Monday	8.30	8.30	7.50
Tuesday	8.30	8.30	7.50
Wednesday	8.40	8.40	7.50

**Rye.**—Moderate demand and steady market prevails. No. 1 is quoted at 83 1/2c per bu., which is last week's price.

### Visible Supply of Grain.

	This week	Last week
Wheat	25,819,000	25,255,000
Corn	10,528,000	9,500,000
Oats	8,757,000	8,710,000
Rye	802,000	779,000
Barley	2,810,000	2,802,000

### Flour, Feed, Provisions, Etc.

**Flour.**—Demand is active at unchanged prices. Quotations are as follows:

Clear	6.00
Straight	6.05
Patent Michigan	6.25
Ordinary Patent	6.15

**Hay and Straw.**—Market is steady. Quotations are: No. 1 timothy, new, \$17.50@18; No. 2 timothy, \$16.50@17; clover, mixed, \$16.50@17; rye straw, \$8.50; wheat and oat straw, \$7 per ton.

**Feed.**—Market continues steady on all grades. Carlot prices on tracks: Bran, \$28 per ton; coarse middlings, \$26; fine middlings, \$30; cracked corn, \$28; coarse corn meal, \$28; corn and oat chop, \$25 per ton.

**Potatoes.**—There is little to be said about this trade. The market is easy, with farmers and buyers sending in ample supplies to keep the values down. Michigan grown are selling in bulk at 30@32c per bu.

**Provisions.**—Family pork, \$25@26; mess pork, \$24.50; medium clear, \$25@26; pure lard, 14c; bacon, 16 1/2@17c; shoulders, 12 1/2c; smoked hams, 15 1/2c; picnic hams, 12 1/2c.

**Hides.**—No. 1 cured, 11c; No. 2 cured, 9c; No. 1 bulls, 10c; No. 2 bulls, 8c; No. 1 green calf, 15c; No. 2 green calf, 14c; No. 1 cured calf, 16c; No. 2 cured calf, 14 1/2c; No. 1 horsehides, \$3.50; No. 2 horsehides, \$2.50; sheepskins, as to wool, 50c@52.

### Dairy and Poultry Products.

**Butter.**—Most large butter markets show a decline in butter values since a week ago. The lower values were expected because of the relation of supply and demand. Dairy offerings participated

in the decline. Quotations for extra creamery, 28c; first do., 27c; dairy, 22c; packing stock, 20c per lb.

**Eggs.**—Heavy receipts have caused a slump in egg values and the market is easy on the new basis. It is probable that the decline will continue unless checked by extreme cold weather, which would diminish the production on the farms. Quotation for current offerings, cases included, is 24 1/4c per doz.

**Poultry.**—Very little business is being done in this department. Poultry is scarce and the present high prices appear to be about the limit that the trade will stand. Quotations are: Live—Spring chickens, 15c; hens, 16c; geese, 14c; turkeys, 18c. Dressed—Chickens, 17c; hens, 17c; ducks, 18@19c; geese, 15@16c; turkeys, 20@24c.

**Cheese.**—Prices unchanged and the market steady. Michigan full cream, 16 1/2@17c; York state, 19c; Limburger, 18c. **Calves.**—Choice to fancy, 11@11 1/2c; ordinary, 9@10c per lb.

**Dressed Hogs.**—Light, \$10@11 per cwt.; heavy, \$9@9.50.

### Fruits and Vegetables.

**Cabbage.**—Steady. Home-grown, \$1.75 @2 per bbl.

**Onions.**—Domestic offerings 70@75c per bu. Spanish, \$1.35 per crate.

**Apples.**—Spy, \$3@3.50; Baldwin, \$2.50@3; common, \$1.50@2.50 per bbl.

**Cranberries.**—Cape Cod berries selling at \$2@2.25 per bu.

**Nuts.**—Butternuts, 50c per bu; walnuts, 50c; shell bark hickory, \$1.

### OTHER MARKETS.

#### Grand Rapids.

A few changes are noted in grain quotations this week. Wheat is up 1c, rye is 5c higher, while corn and buckwheat are off 2c. The bean market is easier. The potato market is quiet, dealers paying 20@25c. Meat dealers say that 11c is top price for dressed hogs this week. In dairy products, both dairy and creamery butter are off 1c. The egg market continues to weaken, dealers paying the country trade 24c, a drop of 2c. Fancy Spy apples are worth \$1@1.50 per bu. Home-grown pieplant is in market, growers getting 10c per lb. Leaf lettuce is off a little, selling at 10c. Green onions are worth 15c, radishes 25c.

Quotations follow:

Grain.—Wheat, \$1.20; oats, 49c; corn, 64c; buckwheat, 58c per bu; rye, 75c.

Beans.—White machine screened, \$1.90 basis; red kidneys, \$2.65 basis.

Butter.—Buying prices, Dairy, No. 1, 23c; creamery in tubs or prints, 27c per lb.

Eggs.—Fresh, 24c. Apples.—50@75c.

Vegetables.—Potatoes, 40@50c; onions, 70c per bu; cabbage, 60c doz; parsnips, 50@60c; beets, 50c per bu; carrots, 40c; turnips, 40c; celery, 20c; parsley, 25c doz; vegetable oysters, 25c doz.

Hogs.—Dressed, 11c.

Live Poultry.—Fowls, 13@13 1/2c; roosters, 9@10c; chickens, 13 1/2@14 1/2c; ducks, 16@17c; young geese, 12@13c; young turkeys, 18@20c.

#### Chicago.

Wheat.—No. 2 red, \$1.24@1.26; May, \$1.12 1/2; July, \$1.03 1/2.

Corn.—No. 3, 63 1/4@64; May, 67 1/2; July, 67 3/4 per bu.

Oats.—No. 3 white, 48c; May, 47 1/4c; July, 44 3/4c.

Butter.—The market has recovered slightly from the very heavy slump of a week ago. Creameries, 25@28c; dairies, 21@25c.

Eggs.—Market has declined. Receipts are increasing and trade is easy. Quotations are: Prime firsts, 24 1/2c; firsts, 23 1/2c; at mark, cases included, 17@21c per doz.

Hay and Straw.—The market is weaker with no change in values. Quotations: Timothy, choice, \$18.50@19; No. 1, \$17@18; No. 2 and No. 1 mixed, \$16@17; No. 3 and No. 2 mixed, \$13@15.50; rye straw, \$10@11; oat straw, \$9@9.50; wheat straw, \$8@9.

Potatoes.—Offerings are heavy but traders are not looking for an immediate decline. Prices average with last week. Choice to fancy quoted at 40@42c per bu; fair to good 36@38c.

Beans.—Kidney beans are higher, others lower. Choice hand-picked, \$2.23 per bu; fair to good, \$2.18; red kidneys, \$2.70@3.

#### New York.

Butter.—Trade is firm at lower prices. Western factory firsts, 22 1/4@23 1/4c; creamery specials, 28 1/4c.

Eggs.—The downward tendency noted a week ago is still on and the trade is steady at the lower level. Eastern firsts, 26 1/2c; seconds, 25 1/2@26c; fancy refrigerator stock, 21 1/2@23c per doz.

Poultry.—Dressed, steady. Western chickens, 16@18c; fowls, 14@18 1/2c; turkeys, 22@25c. Live, firm, western chickens, 16 1/2@17 1/2c; fowls, 19@20c; turkeys, 14@20c per lb.

#### St. Louis.

Grain.—Wheat, No. 2 red, \$1.28; corn, No. 2, white, 66 1/2c; oats, No. 2, 47 1/4c.

Potatoes.—There is still a larger amount of tubers here than the market can handle to reasonable satisfaction of seller. Prices lower. Michigan grown are selling in bulk at 30@32c per bu.

#### Boston.

Wool.—Market here is dull. About the only trading that receives any attention is exchanges of odd lots of a few thousand pounds each. Eastern bidders have begun their annual program by publishing their opinions as to the excessive high price demanded by western producers. However, there appears to be a sentiment among the buyers to get all the wool they can at prices but little shaded from those asked by the growers. The leading domestic quotations here range as follows: Ohio and Pennsylvania fleeces: No. 1 washed 40@41c; delaine washed, 39@40c; XX, 37@38c; half-blood combing, 36@37c;

3/8-blood combing, 36@37c; 1/4-blood combing, 35c; delaine unwashed, 32c. Michigan, Wisconsin and New York fleeces: Fine unwashed, 25@26c; delaine unwashed, 31@32c; 1/2-blood unwashed, 35@36c; 3/8-blood unwashed, 35@36c; 1/4-blood 33@34c. Kentucky, Indiana and Missouri: 3/8-blood, 34c; 1/4-blood, 32-33c.

#### Elgin.

Butter.—Market firm at 27c per lb., which is 2c below the quotation of a week ago. The sales for the week amounted to 443,300 lbs., compared with 457,600 for the previous week.

### THE LIVE STOCK MARKETS.

#### Buffalo.

February 14, 1910.  
(Special report by Dunning & Stevens, New York Central Stock Yards, East Buffalo, N. Y.)

Receipts of sale stock here today as follows: Cattle, 150 loads; hogs, 8,800; sheep and lambs, 14,000; calves, 1,050.

Our cattle market today was 10@15c lower than last Monday but the trade was fairly active at the decline. We look for a steady market from now on unless the runs in Chicago should be heavy. Our butchers are pretty well cleaned up after the late disaster caused by the meat agitation. It has about all died out and we think things will run smoothly from now on. The top today was \$6.85 for one load of extra good cattle. Fresh cows and springers sold at strong last week's prices. The demand for stockers still continues light.

We quote: Best export steers, \$6.15@6.40; best 1,200 to 1,300-lb. shipping steers, \$6@6.25; best 1,100 to 1,200-lb. do., \$5.60@5.90; medium 1,050 to 1,100-lb. butcher steers, \$5.25@5.50; light butcher steers, \$5.10@5.40; best fat cows, \$5@5.25; fair to good do., \$4.25@4.60; trimmers, \$2.75@3; best fat heifers, \$5.25@5.75; fair to good do., \$4.50@5; common do., \$4@4.25; best feeding steers, 950 to 1,000 lbs., \$4.40@4.50; best do., 800 to 900 lbs., \$4.40@4.50; 750 lb. dehorned stockers, \$3.75@4; 600 to 650-lb. do., \$3.25@3.50; best bulls, \$5.25@5.50; bologna bulls, \$4@4.25; stock bulls, \$3.50@3.75; best fresh cows and springers, \$5.50@6; fair to good do., \$4.25@4.50; common do., \$2.50@4.

The hog market opened 10c higher than Saturday on everything except pigs and light yorkers. They sold from 15@25c higher. Market closed strong 5c higher than the opening with everything selling.

We quote: Mixed, medium and heavy, \$9.25@9.35; best yorkers, \$9.25@9.35; light yorkers and pigs, \$9.40@9.50; roughs, \$8.50@8.70; stags, \$7@7.75.

The lamb market this morning opened active with most of the best lambs selling at 9c and closed firm with everything sold. Should we get heavy receipts the last of the week the prices may be some lower.

We quote: Best lambs, \$8.90@9; fair to good, \$8.75@8.85; culls, \$8@8.25; skin culls, \$6@7; yearlings, \$8@8.25; wethers, \$6.75@7.25; ewes, \$6.25@6.50; cull sheep, \$3.50@5.50; best calves, \$11@11.50; fair to good do., \$9.50@10.50; cull to common, \$7.50@9; heavy, \$4@5.

#### Chicago.

February 14, 1910.

Cattle. Hogs. Sheep.  
Received today ..... 27,000 40,000 18,000  
Same day last year.. 21,494 39,465 16,033  
Received last week.. 59,166 145,781 63,685  
Same week last year.. 51,037 145,023 64,993

Another week opened today with stock trains behind time and trade seriously delayed. Cattle receipts were estimated by some as high as 28,000 head, and the general market looked about a dime lower, aside from especially desirable lots of steers and butcher stock, it being a matter of doubt how bad prices would be at the close. Steers at \$7 and over looked steady, with some selling up to \$7.65. Hogs furnished the sensation of the day, advancing rapidly after the opening until sales were reported at \$8.75@9.20, showing new high records. Last Saturday the top was \$9.05, and on Monday a week ago the top was \$8.80. Lambs were firm, and sheep were as much as 15c higher, wethers bringing \$7.15.

Cattle were slow at times last week, especially on what are called the "off days." Tuesday and Thursday, with larger offerings than are ordinarily seen on those days, and buyers are ready to take advantage of such times as stock trains were late in getting in. Otherwise it was an active week, with aggregate supplies not on a very liberal scale, and prices had several sharp advances that put beef cattle on the highest level yet seen. Beef steers sold chiefly at \$5.50@7, with the better class of shipping beefs of good weight ready sellers at \$7@8, and the commoner light weight killing steers bringing \$4.35@5.50. Cattle that could be called good sold at \$6.25 and upward, and more cattle of the kind bringing over \$7 could have been sold without any trouble. Butcher stock shared in the ups and downs of the market, cows and heifers being good sellers at \$3.30@6.25, while even canners and cutters were active and decidedly higher at \$2.25@3.25. Bulls were up, too, bringing \$3.25@5.25, while calves had a good advance, sales being made at \$4@9.40 per 100 lbs., according to quality.

No branch of the cattle market was more active than stockers and feeders, and stiff advances took place for the better class, with stockers finding buyers at \$3.15@4.90 and feeders at \$4.85@5.50 for common to prime lots, even the \$5.25 feeders being merely fairly good in grading. Killers were hot after weighty feeders and were apt to outbid country buyers. Milkers and springers were in moderate demand at \$30@65 per head, eastern orders being rather small. Conditions surrounding the cattle trade are better, with less talk of high prices for meats and a growing conviction that preparing cattle for the spring and summer markets will be a good paying proposition, as a shortage is generally counted upon in most feeding sections of the country.

Hogs made some sharp advances last week that carried values decidedly higher, the best matured consignments going as

high as \$9.10, the highest level of the winter packing season. Advancing markets were encouraging to stock feeders, and they were freer in sending in their hogs, altho supplies ran much smaller in volume than in the corresponding week two years ago, when marketing was on a particularly liberal scale. It was again the materially increased eastern shipping demand that enabled sellers to dictate terms, 11,560 hogs being shipped from here on Monday out of receipts of 33,417 head, with large numbers taken on following days. Quality of the receipts averaged up well, but more heavy swine could have been marketed to good advantage. Hogs sold at a comparatively narrow range of prices, the bulk of the daily sales being within a range of 15c, and eastern buyers took hold of pigs more freely than heretofore, preference being shown for these over-light hogs in numerous instances. Nothing can be discovered in the general outlook of a discouraging nature, and stockmen fortunate enough to own brood sows and healthy young hogs need have no apprehensions, as there is a great shortage of both.

Sheep and lambs experienced another extremely active week, local killers and eastern buyers competing for the choicer flocks, and with not nearly enough of these offered to meet the demand, new high records were reached, ewes going at \$3.50@6.65, wethers at \$5.50@7, yearlings at \$7@8.50, and bucks and stags at \$4.25@5.25. Lambs sold rapidly at \$6@9.05, with feeding lambs bringing \$7@7.90, and increasing receipts of clipped lambs selling briskly at \$7.15@8.55. Colorado lambs were marketed more freely and sold around the best prices, as they were choice. Receipts of sheep and lambs were not especially large at any time, and the moderate supplies made a good market for sellers, but during the last half of the week buyers were less anxious to take hold, and lower prices were paid in most instances. The outlook is regarded as extremely encouraging for sheepmen, as feeding operations are being carried on much less extensively than in recent years, and extremely high prices are predicted for some time to come.

Horses sold to better advantage last week on the whole, as on several days country shippers avoided overloading the market, and part of the decline of \$10 per head that took place a week earlier was recovered. There was an especially good demand for feeders, sales of which were usually made at \$165@225, and medium and good drafters were free sellers at \$175@220, with a few finished drafters bringing \$225@252.50. Eastern expressers were fairly active at \$160@200, and small southern chunks were active at \$75@150, while farm chunks sold usually at \$140@175. Drivers had a fair outlet on a basis of \$150@300, but not many sold anywhere near the top.

### LIVE STOCK NOTES.

Three mammoth draft horses were sold in the Chicago market on a recent day for \$1,175. It pays well to breed and raise high-class horses for commercial use.

A falling off of 40 per cent is reported in the number of lambs fed in Colorado this season. The Knollin Sheep Commission Company made a careful canvass of the ground recently and reports that there has been fed 259,636 head in the Fort Collins district; 38,500 in San Luis, and 272,750 at Las Animas, making a grand total of 570,886 head. A big decrease in the Greeley region was partly offset by an increase in the Monte Vista Valley, where feeding on peas in the fields where grown has been carried on more extensively than usual.

Bull buyers say that bologna sausage is the cheapest meat in the market; hence the high prices paid for bulls and the keen demand for them.

The winter months are the ones when ordinarily the largest gains are seen in the stocks of provisions held in western warehouses, it being the packers' harvest time, but this winter stocks are very slow in increasing, and the January increase in stocks in Chicago, Kansas City, South Omaha, St. Joseph and Milwaukee was only 22,794,855 lbs., compared with an increase of 52,258,332 lbs. in January, 1909, and an increase of 100,496,395 lbs. in January, 1908. On February 1, the combined stocks of provisions, including pork, lard, hams, etc., held at the above named places amounted to 157,732,330 lbs., compared with 135,437,475 lbs. a month earlier and 314,714,065 lbs. a year ago. Cured hog meats, altho extremely high, are having a large domestic consumption, while the enormous demand for fresh pork products stands in the way of any material enlargement of stocks of provisions.

The recent sensational decline in prices for hogs following the agitation of high prices for meats was succeeded by such greatly curtailed marketings as to bring about the highest prices seen in weeks. The eastern shipping demand has revived at about the same time, eastern grown swine having been mostly marketed. It is reported, and this outside competition has made it much harder for western packers to operate and has been the means of frequent advances in prices. Light-weight hogs and pigs weighing around 140 lbs. have been taken freely at times in the Chicago market to ship east and have sold at extremely high prices, the former liberal premium paid for better matured droves disappearing for the time.

### AMERICAN BERKSHIRE CONGRESS.

The officers of the American Berkshire Congress announce that the annual meeting of this organization will be held at White Hall, Illinois, February 22 and 23, 1910, instead of at Purdue University at Lafayette, as previously announced. The first session will be held on Tuesday evening, February 22, and the entire day of the 23rd will be taken up with the business of the meeting and addresses from men of national reputation. A banquet will be given on the evening of the 23rd, by the citizens of White Hall and Gregory Farm, by whose invitation the change of meeting place was made.



## THIS IS THE FIRST EDITION.

In the first edition the Detroit Live Stock markets are reports of last week; all other markets are right up to date. Thursday's Detroit Live Stock markets are given in the last edition. The first edition is mailed Thursday, the last edition Friday morning. The first edition is mailed to those who care more to get the paper early than they do for Thursday's Detroit Live Stock market report. You may have any edition desired. Subscribers may change from one edition to another by dropping us a card to that effect.

## DETROIT LIVE STOCK MARKETS.

Thursday's Market.  
February 10, 1910.  
Cattle.

Receipts, 879. Market active and 15¢ to 25¢ higher than last week, or steady with Wednesday. Closed 5¢ to 10¢ lower.

We quote: Best steers and heifers, \$6; steers and heifers, 1,000 to 1,200, \$5.75; steers and heifers, 800 to 1,000, \$4.50 to \$5.25; grass steers and heifers that are fat, 500 to 700, \$3.75 to \$4.25; choice fat cows, \$4.75; good fat cows, \$4 to \$4.50; common cows, \$3.25 to \$3.50; canners, \$2.50 to \$3; choice heavy bulls, \$4.50 to \$4.75; fair to good bolognas, bulls, \$3.75 to \$4.25; stock bulls, \$3.25 to \$4; choice feeding steers, 800 to 1,000, \$4.50 to \$4.75; fair feeding steers, 800 to 1,000, \$4 to \$4.50; choice stockers, 500 to 700, \$4 to \$4.50; fair stockers, 500 to 700, \$3.75 to \$4.25; stock heifers, \$3.50 to \$3.75; milkers, large, young, medium age, \$4 to \$5.50; common milkers, \$2 to \$3.50.

Bishop, B. & H. sold Hammond, S. & Co. 2 cows av \$30 at \$2.75, 4 do av 1,017 at \$3.35; to Hopp 3 heifers av 700 at \$4.80; to Austin 4 stockers av 432 at \$4. 2 do av 500 at \$4; to Sullivan P. Co. 18 steers av 1,264 at \$6, 2 do av 875 at \$5; to Kam-B. Co. 1 do weighing 760 at \$4.25, 9 do av \$43 at \$5; to Hammond, S. & Co. 3 cows av 1,210 at \$3.60; to Mich. B. Co. 5 do av 964 at \$4, 1 do weighing 1,220 at \$4.75, 15 butchers av 747 at \$4.50, 3 do av 1,173 at \$4.25, 2 do av 1,125 at \$4.25, 5 do av 1,100 at \$4.25; to Sullivan P. Co. 3 bulls av 1,050 at \$4.25, 1 do weighing 1,200 at \$4.40; to Newton B. Co. 9 cows av 821 at \$3.25, 1 do weighing 1,120 at \$4.25, 4 do av 900 at \$3.25, 5 do av 906 at \$4.25, 4 butchers av 847 at \$3.25, 2 cows av 905 at \$3.25, 2 do av 1,150 at \$4.60, 2 do av 985 at \$3.25; to Hupp 7 heifers av 733 at \$4.50; to Burton & E. 6 cows av 1,020 at \$4.50, 8 stockers av 665 at \$4.50; to Kull 1 bull weighing 940 at \$4.15, 1 do weighing 1,370 at \$5; to Sullivan P. Co. 1 cow weighing 1,050 at \$4, 2 do av 1,000 at \$3.50, 13 steers av 951 at \$5.50, 4 do av 832 at \$4.85, 1 cow weighing 1,000 at \$3.50.

Spicer & R. sold Sullivan P. Co. 2 bulls av 955 at \$4.50, 1 do weighing 1,400 at \$4.65, 15 steers av 1,050 at \$5.60, 17 do av 1,012 at \$5.60, 2 cows av 1,015 at \$4.50; to Goose 4 cows av 880 at \$3.25; to Sullivan P. Co. 17 heifers av 740 at \$4.50; to Mich. B. Co. 2 heifers av 590 at \$3.90, 2 cows av 1,030 at \$3.90; to Rattkowsky 3 cows av 970 at \$3.75, 1 bull weighing 550 at \$3.60, 1 bull weighing 1,300 at \$4.75, 1 cow weighing 1,000 at \$4.25; to Breitenback Bros. 9 butchers av 776 at \$4.25, 1 cow weighing 790 at \$3.75; to Sullivan P. Co. 3 do av 873 at \$3.25, 2 do av 910 at \$3, 2 do av 615 at \$3.

Haley & M. sold Sullivan P. Co. 2 cows av 1,000 at \$4.25, 1 do weighing 960 at \$3.75, 1 do weighing 825 at \$3.25; to Mich. B. Co. 2 do av 975 at \$4.25, 1 do weighing 830 at \$3.25; to Kamman B. Co. 5 steers av 900 at \$5.50, 1 cow weighing 930 at \$4, 4 butchers av 792 at \$4.50; to Hammond, S. & Co. 3 cows av 806 at \$3.25, 1 heifer weighing 440 at \$4.25; to Sullivan P. Co. 1 bull weighing 1,020 at \$4.50; to Thompson Bros. 2 cows av 930 at \$4.25, 2 heifers av 870 at \$5, 1 bull weighing 1,510 at \$4.60; to Fitzpatrick Bros. 1 bull weighing 700 at \$4, 3 cows av 870 at \$3, 10 do av 925 at \$4.50, 10 steers av 825 at \$5.25.

Hall sold Sullivan P. Co. 27 butchers av 870 at \$5.10.

Wilson sold same 1 bull weighing 1,990 at \$4.75.

Groff sold same 4 cows av 925 at \$4, 1 bull weighing 1,050 at \$4.25.

Lovewell sold same 6 butchers av 884 at \$4.50.

Groff sold Schurman 3 butchers av 746 at \$4.50.

McAninch sold Hupp 14 steers av 813 at \$4.90.

Lovewell sold Hammond, S. & Co. 1 bull weighing 1,900 at \$5.10.

McAninch sold Regan 3 heifers av 680 at \$4.50.

## Veal Calves.

Receipts, 592. Market steady at last week's prices. Best, \$9 to \$9.50; others, \$4 to \$8; milk cows and springers steady.

Bishop, B. & H. sold Nagle P. Co. 8 av 110 at \$8, 1 weighing 280 at \$5, 3 av 175 at \$5, 19 av 125 at \$8.25; to Newton B. Co. 2 av 110 at \$6, 9 av 145 at \$9.25; to Swift & Co. 2 av 140 at \$9, 5 av 130 at \$9.50, 2 av 140 at \$9.

Spicer & R. sold Nagle P. Co. 1 weighing 150 at \$9.50, 2 av 150 at \$9.50, 1 weighing 120 at \$9; to Mich. B. Co. 6 av 156 at \$8.75; to Sullivan P. Co. 3 av 140 at \$9.50; to Goose 5 av 120 at \$6.75; to Breitenback Bros. 5 av 125 at \$7, 4 av 145 at \$6.

Hertler sold Nagle P. Co. 4 av 155 at \$9.50.

Downing sold same 7 av 150 at \$8.

Graff & S. sold same 14 av 125 at \$9, 5 av 125 at \$9.50.

Haley & M. sold Nagle P. Co. 1 weighing 100 at \$9, 12 av 150 at \$9.50, 17 av 160 at \$7.50, 16 av 140 at \$8.75.

McAninch sold Barlage 1 weighing 170 at \$4, 6 av 105 at \$7.25.

Cheney & H. sold Burnstine 6 av 150 at \$8.60.

## Sheep and Lambs.

Receipts, 7,167. Market dull at last week's prices, or 25¢ to 30¢ lower than on Wednesday.

Best lambs, \$8.25 to \$8.30; fair to good lambs, \$7.50 to \$8; light to common lambs, \$7 to \$7.25; fair to good sheep, \$4.75 to \$5.75; culs and common, \$3.50 to \$4.

Bishop, B. & H. sold Nagle P. Co. 429 lambs av 88 at \$8.55; to Swift & Co. 44 sheep av 95 at \$5.50; to Nagle P. Co. 224 lambs av 87 at \$8.55; to Sullivan P. Co. 108 lambs av 60 at \$7.50; to Hammond, S. & Co. 44 do av 80 at \$8.50, 19 do av 65 at \$8; to Nagle P. Co. 23 do av 75 at \$8.25, 19 do av 80 at \$8.25, 9 sheep av 100 at \$5.50; to Sullivan P. Co. 9 lambs av 65 at \$8; to Swift & Co. 71 do av 75 at \$7.50, 76 sheep av 110 at \$5.50; to Breitenback Bros. 39 lambs av 60 at \$8, 166 do av 80 at \$8.25; to Hammond, S. & Co. 112 do av 65 at \$7.50; to Breitenback Bros. 48 do av 65 at \$7.60; to Swift & Co. 17 sheep av 85 at \$3.50, 87 do av 90 at \$5.50, 13 do av 110 at \$5.50; to Hammond, S. & Co. 31 lambs av 67 at \$7.75; to Fitzpatrick Bros. 44 do av 60 at \$7.75, 11 sheep av 95 at \$5.25, 6 do av 100 at \$4.50; to Mich. B. Co. 97 lambs av 65 at \$7.40.

Downing sold same 33 do av 70 at \$8.25, Haley & M. sold Nagle P. Co. 97 lambs av 80 at \$3.50, 15 do av 55 at \$7, 9 sheep av 100 at \$5, 2 lambs av 80 at \$7.50.

Bohm sold Baker 71 lambs av 75 at \$7.50, 76 sheep av 110 at \$5.25.

Bordine sold Nagle P. Co. 210 lambs av 85 at \$8.50.

Hertler sold same 174 do av 85 at \$8.50, Heeney sold same 101 do av 74 at \$8.25, 6 sheep av 100 at \$4.50.

Bergin & W. sold same 6 sheep av 125 at \$5, 135 lambs av \$3 at \$8.30.

Sharp & W. sold Hammond, S. & Co. 37 lambs av 68 at \$7.60, 44 do av 75 at \$8.25.

Johnson sold Swift & Co. 62 sheep av 110 at \$5.50, 36 lambs av 85 at \$8.25.

Roe Com. Co. sold Thompson Bros. 36 lambs av 60 at \$6; to Nagle P. Co. 181 do av 70 at \$8.15.

Groff & S. sold Barlage 12 lambs av 75 at \$8.

Same sold Thompson 29 sheep av 90 at \$5.

Cheney & H. sold Young 6 sheep av 150 at \$5.25, 57 lambs av 78 at \$8.25.

## Hogs.

Receipts, 2,233. Market 25¢ higher than last week; steady with Wednesday at opening.

Range of prices: Light to good butchers, \$8.75; pigs, \$8.60 to \$8.70; light yorkers, \$8.75; stags, ½ off.

Spicer & R. sold Hammond, S. & Co. 94 av 200 at \$8.80, 109 av 190 at \$8.75, 21 av 170 at \$8.70.

Haley & M. sold same 225 av 200 at \$8.80, 123 av 190 at \$8.75.

Roe Com. Co. sold Sullivan P. Co. 146 av 210 at \$8.80, 10 av 195 at \$8.75, 76 av 170 at \$8.65, 13 av 160 at \$8.60.

Haley & M. sold same 220 av 200 at \$8.75.

Bishop, B. & H. sold same 330 av 200 at \$8.80, 589 av 170 at \$8.75, 154 av 150 at \$8.70.

Same sold Parker, W. & Co. 285 av 170 at \$8.75, 68 av 200 at \$8.80, 63 av 150 at \$8.70.

Sundry shippers sold same 360 av 170 at \$8.75.

## Friday's Market.

February 11, 1910.  
Cattle.

The run of cattle at the Michigan Central yards Friday was very light and the market dull at Thursday's prices on all grades.

Best steers and heifers, \$5.50 to \$5.85; steers and heifers, 1,100 to 1,200 at \$5.25 to \$5.50; steers and heifers, 800 to 1,000, \$4.75 to \$5.25; steers and heifers that are fat, 500 to 700, \$3.75 to \$4.25; choice fat cows, \$4.75; good fat cows, \$4 to \$4.50; common cows, \$3.25 to \$3.50; canners, \$2.25 to \$3; choice heavy bulls, \$4.50 to \$4.75; fair to good bolognas, bulls, \$3.75 to \$4.25; stock bulls, \$3.25 to \$4; choice feeding steers, 500 to 1,000, \$4 to \$4.50; choice stockers, 500 to 700, \$3.75 to \$4.25; stock heifers, \$3.50 to \$3.75; milkers, large, young, medium age, \$4 to \$5.50; common milkers, \$2 to \$3.50.

Roe Com. Co. sold Mich. B. Co. 23 heifers av 717 at \$4.

Bishop, B. & H. sold King 170 steers av 1,185 at \$5.85.

Haley & M. sold Sullivan P. Co. 2 cows av 1,305 at \$3.75, 3 do av 1,100 at \$4.25, 1 do weighing 860 at \$3, 9 steers av 951 at \$5.25.

## Veal Calves.

The run of veal calves was light and the quality common. Best grades, \$9 to \$9.50; others, \$4 to \$8.

Bishop, B. & H. sold Nagle P. Co. 1 weighing 140 at \$9.50, 9 av 120 at \$7.

Lucke sold Sullivan P. Co. 1 weighing 100 at \$7, 13 av 130 at \$9.

Youngs sold Rattkowsky 1 weighing 490 at \$5.10.

## Sheep and Lambs.

The sheep and lamb trade was strong at Thursday's prices. Very few fresh arrivals came to hand, but nearly fifteen hundred that arrived too late Thursday were disposed of. The Nagle Packing Co. took nearly everything in the yards and paid \$8.25 for the lambs. There was nothing good enough to bring over this figure.

Best lambs, \$8.25; fair to good lambs, \$7 to \$7.25; fair to good sheep, \$4.75 to \$5.75; culs and common, \$3.50 to \$4.

Bishop, B. & H. sold Nagle P. Co. 49 lambs av 85 at \$8.25, 11 do av 80 at \$8.25, 118 do av 75 at \$8.25, 54 do av 77 at \$8.25, 153 do av 75 at \$8.25, 48 do av 76 at \$8.25, 23 do av 90 at \$8.25, 43 do av 77 at \$8.25, 43 do av 80 at \$8.25.

Same sold Sullivan P. Co. 50 lambs av 68 at \$7.40, 15 sheep av 80 at \$5.50, 14 do av 75 at \$5.25, 56 lambs av 73 at \$7.80.

Roe Com. Co. sold same 42 lambs av 78 at \$7.75, 22 sheep av 80 at \$5.50, 14 do av 75 at \$5.25.

Kalaher sold Street 46 lambs av 83 at \$8.25, 20 sheep av 65 at \$5.

Bishop, B. & H. sold Korff 94 lambs av 85 at \$8.25, 40 do av 80 at \$8.25.

Same sold Mich. B. Co. 64 lambs av 60 at \$7.25, 25 do av 55 at \$7.50.

Roe Com. Co. sold same 75 do av 75 at \$8.20.

## Hogs.

The run of hogs was the smallest of the season and the market was strong 10¢ higher than on Thursday, one ordinary bunch with several pigs bringing \$8.90.

Light to good butchers, \$8.90; pigs, \$8.75; light yorkers, \$8.80 to \$8.85; stags, ½ off.

Bishop, B. & H. sold Hammond, S. & Co. 35 av 190 at \$8.90, 80 av 200 at \$8.90, 110 av 140 at \$8.80.

## ADDITIONAL VETERINARY.

Stifle Lameness—Bone Spavin.—I have a mare that went lame a year ago; after resting she seems to recover, but soon went lame again and has been lame more or less ever since. I am quite sure it is in the stifle, while some of my friends tell me it is a spavin. Rest appears to make her well, but work brings it on. I have applied turpentine, aqua ammonia and sweet oil without results. Could she be bred with perfect safety? R. E. B., Grand Rapids, Mich.—I am inclined to believe her lameness is in the stifle and not in hock, for resting a spavined horse will not very often make them sound, but of course, assists in effecting a cure. Apply one part red iodide mercury and eight parts lard to stifle every four or five days and if she is not well by the first of May breed her.

Strangles.—What treatment do you advise for strangles and is it contagious? What is splint and how should it be treated? O. A. G. Boyne, Mich.—In all cases of strangles the animal should be given good care, not worked, and poultices or mild stimulating liniment applied to throat and in bad cases good tonics and stimulants should be given. The serum treatment produces the best results but it is most expensive. All that is generally necessary is to give a little fever medicine. In the latter stages give tonics and stimulants. In many cases it is not necessary to give drugs. When the abscess swells much and softens, it should be opened and treated as any other abscess. Strangles is a contagious and infectious ailment and I believe prevails all over the civilized world. Splint is an exostosis (bony enlargement) situated either on the fore or hind shin and is generally caused by concussion or a blow. If they do not interfere with the knee or suspensory ligament they are always curable. A mild blister is a remedy for splint. When they do no harm they should be left alone.

Mange.—I have read your veterinary department with a great deal of interest and try many of the remedies you prescribe, to advantage. Now I would like to know what to do for a horse that has itchy or mange. Two of my horses are troubled with it. H. S. Brown City, Mich.—First of all, the Michigan Farmer appreciates you kind words regarding this department of their paper. By giving your horses two tablespoonfuls of baking soda at a dose in feed three times a day and dissolving three tablespoonfuls of soda in half a gallon of water and applying to the itchy parts of your horses, it will help them. However, it may be necessary to clip them, as the coat at this time of the year is long and holds so much moisture, that it would benefit them to be clipped, especially their body. Or try one part bichloride mercury and 1,000 parts water, wetting the itchy parts twice a day.

Rickets.—Kindly tell me what ails and what to do for my fall pigs. They are lame in hind quarters and can hardly walk. They have lost their appetite. I think lameness is in back; have been in good growing condition until the last few days. Have fed them corn and slop with a little milk. Also have been shut up in small pen with earth floor, but have had plenty of bedding. Pig weighs about 125 lbs. W. N. Sheridan, Mich.—You have been feeding too much corn and not allowing your pigs to have sufficient exercise. Give them some air-slaked lime in their feed and instead of feeding so much corn, feed some ground oats, middlings and vegetables. Skim-milk will not do any harm.

Teat Stricture.—About eight weeks ago one of my heifers gradually grew harder to milk in one teat, until finally it became impossible to get any milk at all. Now have another one affected the same way. What is the cause and remedy? G. N. Burnip's Corners, Mich.—A stricture of the teat must be taking place, perhaps the result of bacterial infection of udder. Rub quarter with one part extract belladonna and five parts lanolin twice a day.

Ophthalmia.—My two-year-old colt has been troubled with sore eyes three different times. D. P. Battle Creek, Mich.—It is possible that your colt suffers from periodic ophthalmia, but if one eye has only been affected, it may be simple ophthalmia. Dissolve 2 grs. sulphate of zinc and 1 gr. sulphate atropia in 1 oz. water and apply to eyes once or twice a day. Keep his bowels open by feeding bran mash or vegetables and give ½ dr. iodide potassium at a dose in feed night and morning for twenty days.

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We want to hear from shippers of Hay and Grain—Our direct service to large consumers in this district enables us to get top prices for good shipments. Liberal advances to consignors.

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WEST MICH. FRUIT & STOCK FARMS over 100 to select from. Write for price list. Van Ness Bros., Newaygo Co., Fremont, Mich.

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## 130-ACRE FARM FOR SALE

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If You Want to Buy or Sell Property, any kind, anywhere, write to the North Western Business Agency, Minneapolis, Minn.

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MICHIGAN FARMS—Fruit, Grain and Stock Farms; big bargains; splendid climate, water, roads and schools. Write for list No. 4. BISHOP & BUCKLES, Hastings, Michigan.

FOR SALE, FARM—160 acres, Delta Co. 80 acres clear, 40 acres in clover and timothy. Large house and large barn, 200 cherry and apple trees. Will also sell all stock and implements. For particulars Address J. A. THOMPSON, Cornell, Mich.

FARM of 170 acres for sale, 3½ miles from thriving town of Deckerville, Mich., telephone and R.F.D. Extra good buildings, exceptionally well fenced, has been stock farm for 20 years. Ill health reason for selling. For particulars apply to JOHN BAIRD, Deckerville, Mich.

Michigan Farm for Sale—170 acres land, 200-117x34, complete water system in barn, cement floors, good house, mile from center of village 1800 inhabitants on two railroads, 47 miles from Detroit, 2½ miles from Pontiac, 16 miles from Flint. Now controls supply of milk to village at 14c. per gallon at the farm. Fine lake on farm. Reasonable price. Would consider sale of farm with or without stock and tools with suitable payment down. Balance long time at 5 percent. Address owner. C. J. LANE, 1230 E. 55th St. Cleveland, Ohio or G. J. SMITH, Holly, Michigan.

DAIRY FARM FOR SALE Secretary Wilson, of the U.S. Dept. of Agriculture, after a personal inspection last Oct. said that Central New York farm land is fully as good as Western land which sells for \$125 to \$200 per acre; this 306-acre dairy farm is better than the average and to close immediately it is yours for less than \$23 an acre with a good ten-room house and big barn thrown in; one mile to R. R., near school and neighbors, short drive to Cornell University; meadows cut 100 tons hay, 100-acre spring watered pasture, big wood lot. To close immediately only \$8500, part cash; for traveling instructions see page 141 "Strout's Farm Buyers' Guide No. 28," it is illustrated and describes many other rare bargains in money-making farms throughout sixteen states. Great variety in size and price. Stock and tools included with many to settle estates quickly. Write today for free copy of this great book of reliable information about Eastern soils, crops, markets, etc., etc. We pay buyers' car fare. E. A. STROUT Co., Station 101, 47 West 34th St., New York.

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WESTERN CANADA

What Governor Deneen, of Illinois, Says About It: Governor Deneen, of Illinois, owns a section of land in Saskatchewan, Canada. He has said in an interview: "As an American I am delighted to see the remarkable progress of Western Canada. Our people are flocking across the boundary in thousands, and I have not yet met one who admitted he had made a mistake. They are all doing well. There is scarcely a community in the Middle or Western States that has not a representative in Manitoba, Saskatchewan or Alberta."

125 Million Bushels of Wheat in 1909 Western Canada field crops for 1909 will easily bring \$170,000,000.00 in cash. Free Homesteads of 160 acres, and pre-emption of 160 acres at \$3.00 an acre. Railway and Land Companies have land for sale at reasonable prices. Many farmers have paid for their land out of the proceeds of one crop. Splendid climate, good schools, excellent railway accommodation, low freight rates, wood, water and lumber easily obtainable.

For pamphlet "Last Best West," particulars as to suitable location and low settlers' rates, apply to Sup't of Immigration, Ottawa, Can., or to the Canadian Government Agent. (5)



# Save and Make Most Money By Choosing the GREAT WESTERN MANURE SPREADER

Learn the facts about this Spreader of QUALITY before you buy.

The main frame of a Manure Spreader is the foundation of the machine, just as the gear of a wagon is the wagon's foundation. Don't allow anyone to fool you with the old story that pine is as good as OAK; you know better. Did you ever see a wagon gear made of pine? No, sir, you never did;—or, at least, we never did.

**Please Look This Picture Over Carefully Because We Want You to Know That**

the main sills of the GREAT WESTERN are made of OAK and measure 2x6 inches.

The cross sills are OAK, mortised into side sills, and each cross sill is held in place by two draw bolts. The two center sills are made of OAK, and extend from the rear cross sill to the front cross sill.

This construction alone, being made of OAK is more stiff and rigid and more substantial than any other machine in the world.

Then, in addition to the great strength, we use two diagonal TRUSS STAY RODS, running from all four corners. These truss rods are made of wrought steel, and you can see it is simply impossible for the GREAT WESTERN Frame to twist out of line.

The Great Western Endless Apron is supported (and the load rests) upon three sets of large rollers; one set on each of the side sills and one set in the center. Please notice that these rollers are placed close together so there can be no sag to the apron with a heavy load on it. Where the rollers are small and placed far apart as they are on many machines there is bound to be a weaving or waving undulation of the apron that compresses the manure and makes it bind along the sides, which adds not a little to the draught.

## Great Strength Required

Did you ever stop to think what great strength is needed in a spreader (if it is to stand up)? Most manufacturers do not realize what is required by the farmer. If they did, there would be more spreaders built on the lines of GREAT WESTERN construction.

Just think of this: The Frame or Gear must carry twice as heavy a load as is ordinarily put on a common wagon.

Strength is required to move the load of manure within itself—and over rough and frozen ground.

Strength is required to elevate the manure, cut it up and discharge it.

The fact is, more strength is required in a manure spreader than in any other piece of machinery ever placed on the farm.

We build the Great Western as we do because, from our own experience, we know that solid, substantial construction is necessary; because we know that flimsy construction and twisted frames always mean breakage and short life for the machine; because we have found that this great strength has stood the test on thousands of farms where cheaply constructed spreaders have gone to pieces in a year or two.

Isn't it common sense to say that unless the frame is made STRONG AND SUBSTANTIAL (extra strong), the great strain that is put upon it by the machinery that is attached to it will soon twist it out of shape.

This would mean that the machine would run hard; breakages would occur constantly in spite of all you could

do. You know that the minute any machine commences to twist out of shape it goes to pieces.

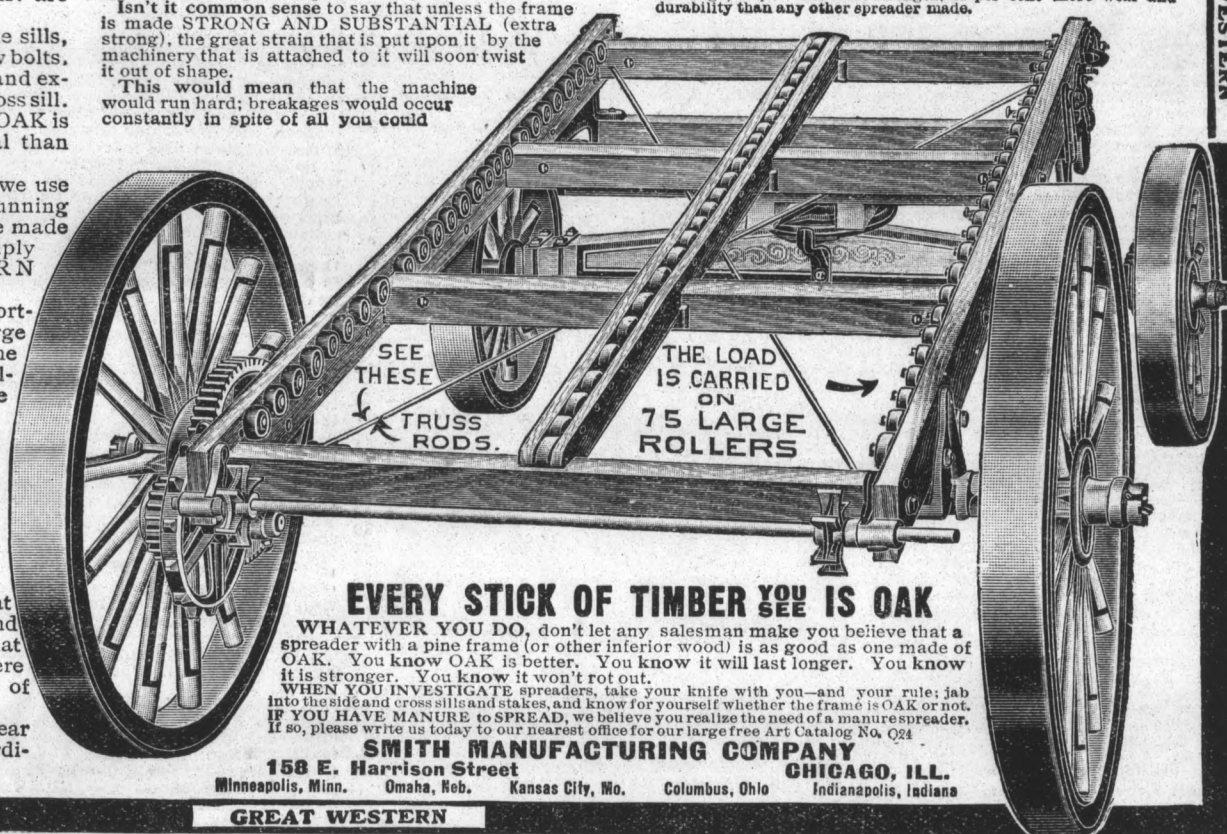
The GREAT WESTERN Manure Spreader is made for the man who wants the BEST.

If you will go to your dealer, he will show you the machine or get you one. He will set it up ready for you to hitch to. You can take it out and try it. You have no freight to pay and not one cent of expense.

On the other hand, if you haven't a first-class dealer in your nearest town who will show you a Great Western Spreader, we want to hear from you right away, and we will make you a liberal proposition.

IF YOU ARE INTERESTED in the BEST in the spreader line, we will prove our statements and prove you can't afford to buy anything but the BEST. The Great Western generally costs a little bit more to start with, but if you pay a few dollars extra and get QUALITY you are absolutely sure of getting \$20 back in durability and satisfaction for every extra dollar you put into the machine.

NOW, THEN, we warrant our machine to have:—50 per cent less breakage, 50 per cent more strength, 50 per cent more wear and durability than any other spreader made.



## EVERY STICK OF TIMBER YOU IS OAK

WHATEVER YOU DO, don't let any salesman make you believe that a spreader with a pine frame (or other inferior wood) is as good as one made of OAK. You know OAK is better. You know it will last longer. You know it is stronger. You know it won't rot out. WHEN YOU INVESTIGATE spreaders, take your knife with you—and your rule; jab into the side and cross sills and stakes, and know for yourself whether the frame is OAK or not. IF YOU HAVE MANURE TO SPREAD, we believe you realize the need of a manure spreader. If so, please write us today to our nearest office for our large free Art Catalog No. Q24.

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**GREAT WESTERN**

**NOW! IS JUST THE TIME NOW!**  
**GET A PENCIL AND A POST CARD**

You have been seeing my ads all fall and winter—read some of them, may be. Meant some time to write me to find out what all my advertising was about. But you put it off—couldn't find a pencil maybe. Had to quit reading and go out to do some chore or other—and you clean forgot it.

Now—Right Now you're thinking about it again. Don't stop till you

**Write Galloway today about a Manure Spreader**



Lowest prices ever offered. Try it 30 days on your own farm.

**Made in 5 Sizes**

Why? The best reason is that this is the year when you will need a spreader if you ever did. Manure in piles all around the barn and feed lots. Worth lots of money. Can't afford to waste a bit. Takes an awful lot of time. Get a spreader of Galloway. Best investment you ever made in machinery.

Galloway makes all his promises, all his statements, claims and challenges in black and white. A man can read 'em running. Now, what about the other fellow? Make him write it in the contract. Does he say his spreader will beat the Galloway before breakfast? Make him write it in the contract. Does he claim his spreader is made of better material than the Galloway? Make him write it in the contract.

I will write any of my agreements—I do write 'em, every one of 'em. Ever think of that? Think it over then. If the Galloway were not exactly as good or better than I claim it is, could I hope to escape utter smash-up? You know I couldn't stay in business with my written claims and agreements if I didn't have the spreader to back me up.

Well then, won't you take my advice, accept my invitation, fix it any way you choose but get your name onto a slip of paper or a postal card and send it to me. Not next week—not next Saturday—not tomorrow. Do it quick. Now is the time—Now. Then you'll be ready for the spring work.

By the way, ask for my proposition. It might pay for your spreader before the year is half done.

**WM. GALLOWAY President WM. GALLOWAY COMPANY 647 Galloway St. WATERLOO, IOWA**



**FREE** This book contains barrels of good information about Manure Spreaders and how to make money with them. Ask us for one—they are FREE!



**19 Improved Features—All Found on No Other Spreader.**

**Guarantee Unlimited in Time—the ONLY one of the kind.**

**PRICE Cut to \$83.50 Freight Prepaid**

on the manure spreader you want—the spreader that has eclipsed all others so completely that no manufacturer now hopes to compare his machine with this. Always the leader, it now jumps many more years ahead of the imitations, with 19 improved features, all found on no other spreader. Yet, note the prices, delivered to you, freight prepaid: In Michigan, \$83.50; in Indiana or Ohio, \$85.00; in Illinois, \$86.50; in Iowa, Minnesota, Wisconsin or Missouri, \$90.00. Write for prices for other states. These prices equal or beat prices asked for other spreaders—yet we will prove to you that they are mere makeshifts when compared with the latest improved—

## Detroit-American—30 Days' Trial—Cash or Credit

Made in five sizes—of guaranteed capacity. Stronger and lighter running than any other spreader—more steel used; all-steel cylinder—all-steel rake and end gate; twice as effective as any others and indestructible; the only direct chain drive—no gears to create draft and break; simplest feed; six changes. In fact, every feature from 40 to 100 per cent better than any other machine at any price. Prove it. Our trial offer is free—no money down; no deposit. Just order.

**Our Wagon-Box Spreader \$42.50 Freight Paid**

Delivered in Michigan and only a trifle more in other States. The limit of big value in a box spreader. Guarantee, trial, credit, all go on this, too.

**FREE BOOKS:** The best published on value of manure; how to spread, etc., and how to buy at the right price. Also shows and prices the Detroit-American Tongueless Disc Harrows—the only genuine tongueless disc, and our full line of Detroit-American Cultivators. Don't buy anything in these lines till you have our propositions to you. Just send your name and address. Do it today.

**American Harrow Company**

1045 Hastings Street,

DETROIT, MICH.

Warehouses in many cities insure prompt deliveries.



**Concrete Construction on the Farm.**

This book is fully illustrated and is invaluable to persons thinking of building anything with cement. Contains full instructions how to build silos, walks, floors, bridges, cistern, all kinds of outhouses, hog and poultry houses, etc.

We send this book FREE with a one year's subscription at 75c. It is a Class A Premium. Cash price 25c. Postage paid.

Address all orders to  
**THE MICHIGAN FARMER, Detroit.**



## THE DAIRY

CONDUCTED BY COLON C. LILLIE.

### THE GROWING ICE CREAM INDUSTRY.

Few of us realize the amount of cream that is used a day in the manufacture of ice cream. It is practically beyond our comprehension to understand even now, and yet the industry is only partially developed. What it will eventually amount to, no one can contemplate. It is only just a few years ago that ice cream was only used in the larger towns and then by only a few dealers. Now every drug store, many of the grocery stores, and hundreds of special ice cream parlors are in operation for the entire warm months of the year, and some of them even continue the whole year round. Besides this, every little town sells ice cream in amazingly large quantities. In our little town of only 1,000 people there are two places which sell ice cream. The proprietor of one of these places told me the other day they had sold 900 gallons of ice cream. Think of it! One creamery in this state situated in a small town, manufactured and sold last summer 3,500 gallons of ice cream. Think, then, what is sold in one season in the city of Detroit, or Grand Rapids, or Saginaw, let alone the hundreds of other towns all over the United States. Then we wonder why it is that dairy products are advancing in price. How can we make cheap butter, and cheap cheese if the people are bound to eat all of the butter-fat that the cows produce in the form of ice cream.

Just this past week it was my privilege to visit what is said to be the largest manufacturer of ice cream in the city of Chicago. To give you an idea of the extent of the business of this firm allow me to say that the company owns 140 horses, simply used for the delivery of ice cream from the factory to the retail dealers in the city of Chicago. I saw in one cold storage room ten 1,000 gallon tanks used for the storage of the cream as it is received from the farmers. There were installed, ready for use, ten continuous ice cream freezers with a capacity of 1,000 gallons of ice cream a day, or in other words, the firm has a capacity of manufacturing 10,000 gallons of ice cream every day; that is, every ten hours; and they had other machines that could be used should the business demand. This is only one firm in one city. Some may be surprised to learn that people are now putting away cream in cold storage to be used the first warm spell next spring for ice cream. By sweetening this cream and putting it away at a temperature just about at freezing, they can keep the cream in perfect condition. They have learned from experience that when the first warm spell comes, everybody is hungry for ice cream, and at the same time it is almost impossible to get cream that will do for manufacturing ice cream on account of the weather. The first warm weather of the season always brings a lot of sour cream that will not do at all for this purpose. Consequently, the manufacturer stores his cream for future use, just as butter is stored in the summer time for use in the winter time when there is a shortage.

I believe it is the duty of the co-operative creameries of the state to put their business in condition so that they can manufacture ice cream and ship it to nearby towns and also to supply their local trade. Why ought they not to look after this portion of the business just as well as the butter or cheese supply. The cream will be in better condition and will give better satisfaction to the consuming public than as tho it is made in some large city by some large centralizer. Why cannot the local creamery manufacture cream and ship this cream to the nearby city just as well and better than the centralizer can send out to the farmer and get the cream, ship it in and then manufacture it and ship it back. In my opinion the creamery who does not make preparations now for doing this kind of work will be behind the times in a few years.

To those who think there is any danger of dairy products being lower in price in the near future, that person ought to take a little time off and visit some of our large cities and investigate this growing demand for ice cream. There will not only be the same demand for butter and for cheese, and for milk and for cream for table use, but this demand for ice cream is bound to be one of the biggest sources of consumption for dairy products that we have had. If the demand for ice

cream keeps increasing, it will soon take as many cows for this product as it does for butter. Ice cream is good. Let people eat it. The dairyman certainly can not object.

### SUCCESS WITH WINTER CHURNING.

I noticed in the recent issues of the Michigan Farmer several complaints of cream frothing in the churn. There are two reasons for this, unripened cream and low temperature while churning. To ripen cream, put about one pint of fresh buttermilk in cream 48 hours before churning.

This provides the germs necessary for souring, then warm cream to 62 degrees and not more than 64 degrees. This is the proper temperature for churning. I would advise purchasing a dairy thermometer which can be bought for 20 cents. This is a great help and saves lots of time.

I have my cream freeze and after treating it in this way never failed to get butter inside of ten minutes. Be sure and test cream after putting it in the churn, because the temperature of the churn will cause a difference in the cream.

I scald churn just before using in the winter time and have an ordinary bent wood churn.

Your milch cows should have plenty of salt.

My way of caring for butter after it is churned is to wash thoroughly, pouring off water and putting on more until it is perfectly clear. Buttermilk in butter is the cause of its becoming strong. Take care not to mix much before putting in salt as this makes it salty.

Put one ounce of salt to every pound of butter, let stand twelve hours and mix again, this time thoroly.

I have made butter this way and kept it several weeks in the warmest weather and it would retain a good sweet flavor. Cass Co. MRS. H. H. ROTH.

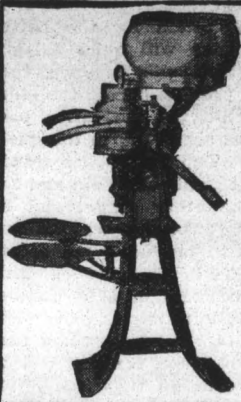
### REPORT OF STATE DAIRYMEN'S MEETING.

(Concluded from last week.)

The election of officers resulted in the re-election of Hon. T. F. Marston, of Bay City, for president, and F. H. Vanderboom, of Marquette, for vice-president. There was a spirited contest for the office of secretary and treasurer in which E. S. Powers, of Ravenna, was finally chosen to fill that place. Following is the remainder of the report of the discussions: Time was next given to the subject presented by Claude A. Grove, of Hillsdale county, on "Should Gathered Cream or Milk be Tested at Every Delivery or by Composite Samples," and it appeared both from his talk and the discussion that followed, that creamery men as well as patrons are better satisfied with the testing of each delivery.

The next address proved a most interesting one. It was entitled Grading Cream at the Creamery and Paying According to Quality,

by Colon C. Lillie, of Ottawa county. Mr. Lillie first mentioned the results of the dairy laws passed some five years ago. They have helped to place the creameries and cheese factories upon a more satisfactory basis and give to the Michigan product a better standing in the large markets of the country. The present force is sufficient to look after the creameries and cheese factories in tolerably good shape, but increased means will be necessary to give satisfactory attention to the dairy farmer's end of the business. The great drawback to applying the system of paying according to grade was that there seemed no absolute standard by which it could be determined, to the satisfaction of the patrons, whether their cream should go in one grade or another. In accepting a contract for the navy department, it became necessary to apply such a test to the cream received, and Mr. Lillie soon found that the alkaline test required was an absolute one. He also discovered that he was not receiving sufficient high class cream to fill his contract in the required time. The directors of his creamery therefore decided to pay 1½ cents more per pound for cream that would stand the test. When they started, a year ago, about half of the cream received, went into the first grade of cream, while now there is scarcely a delivery but what goes into the first grade. He expected at first that the scheme would lose many patrons, but it has had decidedly the opposite effect. They have found that the extra price paid for the cream is made up in the better price that can be secured for the manufactured butter.



## WATCHES AND CREAM SEPARATORS

There are some sensible dairy farmers who buy \$1, \$5 and \$10 watches, because they serve the purpose of a watch and waste nothing while they last.

But would any of these sensible dairy farmers put their money into and carry a \$1, \$5 or \$10 watch if it cost them from 25 cents to \$1 that they might otherwise save EVERY DAY to do so?

Most assuredly they would not.

Then why should any dairy farmer buy a cream separator of the \$1, \$5 or \$10 watch kind where its use DOES mean a WASTE of from 25 cents to \$1 every day, in quantity and quality of product, that a DE LAVAL cream separator would SAVE?

THAT'S the all-important DIFFERENCE between POOR SEPARATORS and POOR WATCHES,—one's good enough while it lasts but the other wastes twice a day from the time its use begins.

A De Laval catalog is a separator education to be had for the asking.

### THE DE LAVAL SEPARATOR CO.

165-167 BROADWAY  
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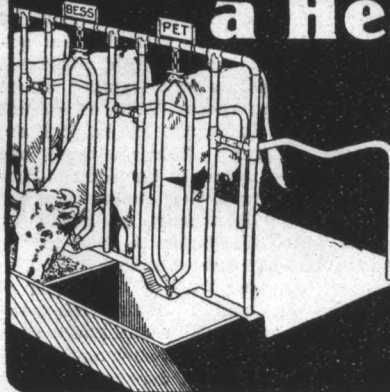
DRUMM & SACRAMENTO STS.  
SAN FRANCISCO

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14 & 16 PRINCE STREET  
WINNIPEG

1018 WESTERN AVENUE  
SEATTLE

## Does the Cows a Heap of Good



Cow comfort and cow sanitation result in more cow profits, and that alone should induce any farmer or dairyman to seek these conditions. Louden Sanitary Steel Stalls and Stanchions double the light and air in a barn and insure perfect ventilation, perfect sanitation—a result impossible with any wooden equipment. Yet

### LOUDEN STALLS AND STANCHIONS

are actually cheaper. Louden stalls of heavy tubular steel, with malleable fittings, have no flat surfaces for dust to accumulate—easy to keep clean and almost indestructible. Louden stanchions give cows more comfort than other makes, yet keep them perfectly lined up. Throat chains prevent cows from lying down when milking. Simple and very durable. Latch easily opened or closed with gloved hand, but can't be opened by animal. Send today for free catalogue of sanitary, money-saving barn equipment.

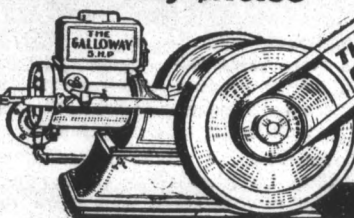
LOUDEN MACHINERY CO., 603 Broadway, Fairfield, Ia.

## GALLOWAY SAVES YOU \$50 to \$300

SAVE from \$50 to \$300 by buying your gasoline engine of 2 to 22-horse-power from a real engine factory. Save dealer, jobber and catalogue house profit. No such offer as I make on the class of engine I sell has ever been made before in all Gasoline Engine history. Here is the secret and reason: I turn them out all alike by the thousands in my enormous modern factory, equipped with automatic machinery. I sell them direct to you for less money than some factories can make them at actual shop cost.

All you pay me for is actual raw material, labor and one small profit (and I buy my material in enormous quantities). Anybody can afford and might just as well have a high grade engine when he can get in on a wholesale deal of this kind. I'm doing something that never was done before. Think of it! A price to you that is lower than dealers and jobbers can buy similar engines for, in carload lots, for spot cash. An engine that is made so good in the factory that I will send it out anywhere in the U.S. without an expert to any inexperienced users, on 30 days' free trial, to test against any engine made of similar horse-power that sells for twice as much, and let him be the judge. Sell your poorest horse and buy a

5-H.-P. Only \$119.50



Get Galloway's Biggest and Best FREE GASOLINE ENGINE BOOK

Write today for my beautiful new 50-page Engine Book in four colors, nothing like it ever printed before, full of valuable information, showing how I make them and how you can make more money with a gasoline engine on the farm. Write me—

Wm. Galloway, Pres., Wm. Galloway Co.  
645 Galloway Station, Waterloo, Iowa

## FERTILIZERS That Give RESULTS

WE WANT AN AGENT For our Fertilizer in every neighborhood in Michigan.

We will ship to responsible parties on a consignment contract; that is, the agent only pays for what he sells. We will take farmers' notes for pay.

Our prices are right, our goods are extra. Write for prices and terms. THE CINCINNATI PHOSPHATE CO., Station P, CINCINNATI, OHIO.

UNICORN DAIRY RATION increases the yield of milk and fat and reduces the cost of feeding from 10 per cent to 20 per cent.

The UNICORN DAIRY RATION has doubled our butter (and milk) yield in a single month. MARION FARM, Mifflin, Pa., Geo. E. Copenhaver, Supt. Write us for particulars. CHAPIN & COMPANY, Inc., Milwaukee, Wis.



## Don't Want You To Know It

You can easily guess why common cream separator makers say disks or other bowl contraptions are necessary. They know that the simple, sanitary, easy-to-clean Sharples Dairy Tubular Cream Separator has no disks or contraptions and yet develops twice the skimming force of their machines, skims several times as clean, skims faster, lasts a lifetime, and is many times easier to wash. But they don't want you to know it. They have complicated machines to sell and can't make Tubulars.



The Only Piece Inside Sharples Dairy Tubular Bowls.

52 Disks from one Common Bowl.

Tubular sales easily exceed most, if not all, others combined. Tubulars probably replace more common separators than any one maker of such machines sells. The World's Best. World's biggest separator factory. Branch factories in Canada and Germany.

**30 Yrs**  
Write for New Catalog No. 152

**THE SHARPLES SEPARATOR CO.**  
WEST CHESTER, PA.  
Chicago, Ill., San Francisco, Cal., Portland, Ore.  
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## Six Thousand Indiana Silos

IN USE ON THE  
**Finest Farms in America**

Is absolute proof that "Indiana Silos are the best in the World."

Ask Any Man Who Uses One!  
An Indiana Silo saves half your feed, it pays for itself in one season. High priced feed makes it imperative that you investigate and decide upon your silo now. The best materials make Indiana Silos far the best. We own saw mills and timber lands, and thereby get stock selected, seasoned and prepared exclusively for our silos.

Write for the reasons why "Early Buyers are Lucky Buyers."  
Factories at Anderson, Ind., Des Moines, Iowa, and Kansas City, Mo.

Write for THE SILO ADVOCATE FREE  
Today AND OUR SILO BOOK FREE  
These contain much valuable information you should have. Address all communications to the General Offices of the INDIANA SILO CO., 382 Union Building, Anderson, Indiana. We are the largest Silo Manufacturers in the World.

## "MODERN SILAGE METHODS"

Send for this new 224-page book on Silos and Silage. 1908 edition—size 5 1/2 x 7 1/2 in.—indexed—over 40 illus. Used as a text book in many Agricultural Colleges. Contents by chapters follow: "Advantages of Silo," 25 pages; "Silos: How to Build," 76 pp.; "Concrete or Cement Silos," 10 pp.; "Silage Crops," 16 pp.; "How to Make Silage," 19 pp.; "How to Feed Silage," 22 pp.; "Feeder's Guide," etc., 56 pp. A vast amount of knowledge boiled down—nothing so complete ever published—answers every silage question. Mailed for 10c coin or stamp, if you mention this paper.  
**SILVER MFG. CO.,**  
Salem, Ohio

## THE ROSS SILO

The only thoroughly manufactured Silo on the market. Full length stave. Continuous door frame complete with ladder. Triple beveled silo door with hinges. Equipped with extra heavy hoops at bottom.  
**AIR TIGHT**  
Makes winter feed equal to June grass. THE ROSS will more than pay for itself in one season. Write today for catalog which gives facts that will save you money. Agents wanted.  
**The E. W. Ross Co. (Est. 1890)**  
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**SILOS**  
EARLY BUYERS  
SAVE MONEY  
EARN ITS COST BEFORE MONEY IS PAID  
HOW? KALAMAZOO TANK & SILO CO. MICHIGAN

**15000 Bu. EAR CORN**  
Ground very fine with one set of Rollers and Concaves used in the  
**"BULL DOG"**  
Grinds all grain perfectly fine and is very light running, because all work is done only 1 1/2 inches from center of shafts sizes 2 to 50 h. p.  
Get our Catalog.  
**CROWN POINT MFG. CO.**  
133 E. ROAD, CROWN POINT, IND.

When farmers begin to know that they will be paid a premium for the better grade of cream, they will quickly learn the conditions which will produce that grade. Mr. Lillie practiced from the start the plan of attaching to the can a blue ticket or red ticket according to the quality of the cream. The blue ticket standing for the highest grade of cream and the red ticket for the other grade, and he found that many times this was an impetus to farmers to produce good cream for they took pride in the matter. This received the commendation of a number who discussed the question following Mr. Lillie's excellent talk, and it seems that the day is at hand when farmers will be paid for their cream as they would for many other products that are graded.

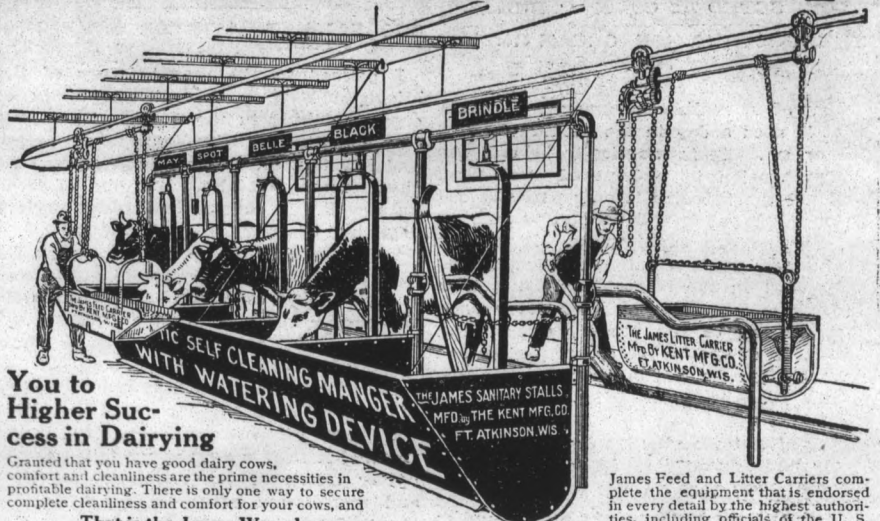
### The Cheese Program.

The Friday morning session was the first one to be devoted to the interest of the cheese makers who are affiliated with the State Dairymen's Association. This session was presided over by Mr. Leonard Freeman, one of the prominent cheese men of the state. The attendance was not as large as that of earlier sessions of the convention for the reason that many of the buttermakers and dairy farmers who had attended on previous days, had left for their homes. What the meeting lacked in numbers, however, was made up in interest. The talks made and the discussions following were of an interesting character.

The first number on the program was an address by Mr. Robert Johnson, of Woodstock, Ont., on the subject of "Difficult Problems in Cheese Making." Mr. Johnson spoke of the cheese industry of Canada as being concentrated in a rather small territory, most of the milk being brot to the community factories by the farmers producing it. In the handling of the milk by the producers, the first difficult problem for the cheese maker arises. The cows should be kept in a sanitary stable, handled in a sanitary manner, given plenty of pure food and pure water and the milk should be properly cooled, and brot to the factory in clean cans. The fact that most Canadian cheese is sold for export makes it necessary to have the quality uniform, and uniform quality can only be secured by close attention to details. Mr. Johnson spoke of the class of instruction and the instructors in cheese making which compared with the inspectors who travel about our state visiting cheese factories, except that in Canada there are eleven of these inspectors while in Michigan there are but two. They not only inspect the factories and instruct the cheese makers, but they make a practice of inspecting cans in which the milk is brot to the factories at least once a month. At first it was found that fully 25 per cent of these cans were unfit to use for the transportation of milk. Now the rusty cans are promptly rejected for such uses. Notwithstanding this care, however, it was found that the cheese made in some factories continued to have a bad flavor, but this difficulty was found to be wholly removed by pasteurizing the whey before it is returned to the farmers in the cans which they use in bringing the milk to the factory. The Canadian cheese is not made "soft" as that commonly manufactured in Michigan, and is much more uniform in quality, containing a smaller percentage of moisture. He expressed the opinion that a firmer and more uniform grade of cheese would be more profitable to manufacturers in Michigan. The question was ably discussed from a technical standpoint by a number of cheese makers and factory owners present, the opinion seeming to prevail that the cheese commonly manufactured in Michigan was more preferable for our market than the firmer product which must be made where it is necessary to hold the cheese in stock for any length of time.

The balance of the program was of a more strictly technical nature, referring little to the raw material and more to the process of manufacture. This was particularly true of the excellent paper delivered by Mr. R. A. Murray, of Byron, on the topic, "Making a Close Meaty Textured Cheese," and largely true with the last number by Mr. Wm. Reed, of Perry, on the subject, "What Qualifications are Necessary to be an Up-to-Date Cheesemaker?" Mr. Reed gave especial emphasis to the diplomacy which the cheesemaker should exhibit in dealing with the patrons and stated that the right kind of a cheesemaker could not only be on friendly terms with, but a great help to, them in the production of a first-class raw material for delivery to the cheese factory.

# Let JAMES Help



## You to Higher Success in Dairying

Granted that you have good dairy cows, comfort and cleanliness are the prime necessities in profitable dairying. There is only one way to secure complete cleanliness and comfort for your cows, and

### That is the James Way, because The James Sanitary Cow Stall

is the only complete stall made, and it is built with the single purpose of keeping cows clean and comfortable and making barn cleaning easy. It includes, besides the James stall proper, the James Adjustable Stanchion, which lines long and short cows up behind on the gutter, and the James Self-Cleaning Manger, which lifts automatically, permitting the sweeping up of all leavings.

James Feed and Litter Carriers complete the equipment that is endorsed in every detail by the highest authorities, including officials of the U. S. Bureau of Animal Industry, and by the most successful practical dairymen in the country.

I can send you the names if you wish. My new feed and litter carrier catalog is just off the press, also a large folder in colors describing the famous James Sanitary Cow Stalls and Stanchions. They are given free for the asking.

**W. D. JAMES, Mgr., KENT MFG. CO.**  
131 Cane Street Fort Atkinson, Wis.

Get my Special Proposition which is Real Co-operation Between the Manufacturer and the Farmer

**Wm. Galloway**  
President  
**Wm. Galloway Company, of America**

## "OK" By the Farmers and Dairymen of America

like a \$5,000 automobile, and all other modern machines. The only Separator that automatically oils itself.

The only Separator into which you can pour oil at the top once a month from your oil jug or can, and have it oil itself without danger of running dry, or ruining itself like others. This feature alone worth \$50.00 more than separators built the old way. Cost nothing extra on Galloway.

No oil cups to remember to fill or turn up twice a day. Dust-proof—Danger-proof—All gears enclosed—Simple but standard built and absolutely dependable.

Has the only revolving supply tank. Worth \$15.00 more on any machine. Costs nothing extra on a Galloway. Easiest to clean and the few parts come out easy and can't get back out of place.

Easiest to run—high crank—low tank. With no high lifting and no "back-breaking" cranking. Gets the finest quality cream, and all of it—no lumps or churning, as Nature's true principle is followed without forcing either the milk or cream the wrong way up or down.

Skims closest in any climate or season, no matter whether your milk is warm or cold. Is as handsome a machine, compact and substantial as you ever saw or could find. Beautiful finish.

Let us send you all the facts, told in our New Cream Separator Book. Let me write you personally and send you this Big, New Separator Book of mine—postpaid—Free, so that you and your wife and the boys and girls can talk it over and then try one of my separators under my easy plan for you to do it.

You'll call it the best if you test it alongside any of the highest-priced \$85.00 to \$110.00 separators sold by anybody today—makers—catalog houses—supply houses—dealers—jobbers or anybody else.

**Wm. Galloway, Pres., The Wm. Galloway Co., of America**  
Authorized Capital, \$3,500,000.00. 643 Galloway Station, Waterloo, Iowa

## GALLOWAY SAVES YOU \$25 to \$50

### If You Answer This Ad

Cut or tear out this coupon—or write a postal or letter—and send your name to me before you buy any kind of a cream separator. Keep \$25 to \$50 cash in your own pocket, in savings, and get a better separator than you would pay others \$85 to \$110 for—you be the judge and jury. I promptly quote you prices direct from my factory to you—also send you my big, free separator book and special proposition.

**William Galloway Company, of America**  
643 Galloway Station, Waterloo, Iowa

Name.....  
Town.....State.....

NEVER BEFORE in the History of High-Grade Separators could you buy the latest standard, highest-grade machine like the Galloway at such a low direct price as I can make to you now—because I am making so many of them. Only \$33.50 and upward, freight prepaid to you on 90 Days' Approval Test and 20 years' guarantee.

Any capacity, from 200 to 950 pounds per hour, according to your needs, and I'll save you from \$25.00 to \$50.00 on the price. The only Separator whose gearing runs in a "Bath of Oil"

Save \$25 to \$50 on Capacities From 200 to 950 Pounds Per Hour

**Only \$33.50 and up**  
Freight Prepaid  
30 Days' Free Trial  
90 DAYS' APPROVAL TEST

## \$15.95 AND UPWARD

THIS OFFER IS NO CATCH. It is a solid, fair and square proposition to furnish a brand new, well made and well finished cream separator complete, subject to a long trial and fully guaranteed, for \$15.95. It is different from anything that has ever before been offered. Skims 1 quart of milk a minute, hot or cold, makes thick or thin cream and does it just as well as any higher priced machine. Any boy or girl can run it sitting down. The crank is only 5 inches long. Just think of that! The bowl is a sanitary marvel, easily cleaned, and embodies all our latest improvements. Gears run in anti-friction bearings and thoroughly protected. Before you decide on a cream separator of any capacity whatever, obtain our \$15.95 proposition.

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## HORTICULTURE

### APPLE BUYERS BLAMED.

Several years ago Michigan was known the country over as an apple state. Now outside parties look with suspicion upon apples said to come from this peninsula. Fruit growers of the state are asking the question, "who is responsible for this change?"

There is no doubt that growers themselves are, to a great extent, at fault. A large per cent of the apples produced have been of poor quality. Little care has been given the orchards. Lack of fertilization, fungous diseases and insects have made the crops second class at the best. In order to get a better price for these products, growers put the poorer apples in the center of the packages, and faced them with the best specimens. This practice secured to them a better price for that particular crop but, persisting in, this practice has cost Michigan her reputation as an apple growing state. But the question has been recently raised, "Are the growers entirely at fault for this condition?" An investigation into the methods used by buyers in some of our largest apple growing districts, leads us to believe that the growers are not only not altogether at fault, but that probably buyers have done the trade even more mischief than the combined effects of the fraud practiced by the growers upon the public.

We have reference here to facts brot out by testimony of where buyers go into a certain section, buy apples extensively, face the barrels with fancy fruit and dump the inferior specimens in the center of the receptacle. When commission men and retailers know or learn that this fruit comes from our state and if they have had numerous experiences of the same kind, they are certain to form a prejudice against Michigan apples, and will constantly make an effort to secure apples from Michigan sections where they are more certain that properly packed fruit can be secured. Growers in the Grand Traverse region testify that to their knowledge, Chicago people have purchased fancy apples in that region, unpacked the barrels, and repacked them with poor grades, using this fancy fruit for facing, and filling the main part of the barrel with the inferior stuff. So common has this practice become, that a farmers' organization in that region recently adopted a resolution to the effect that apple buyers and commission men are largely responsible for dishonestly packed apples.

This is a serious matter for fruit growers. Their business is suffering untold injury by the situation as it exists today. It will take them a long time to regain the reputation lost. The fortunate thing about it is that the fruit industry, where conditions are suitable for carrying it on, is so remunerative under ordinary market conditions, that growers can afford to go ahead and re-claim their former standing in the fruit markets of the country and all the time make good money.

It is certain that the first step in this regard is to grow better fruit. The application of modern knowledge gained thru experience and scientific research, will go far towards remedying the situation; for where there is a large percentage of good fruit, the amount of inferior stock that can be used to defraud the public will be reduced, and besides, when growers are applying these improved methods they are sure to give the market more consideration which must result in a better appreciation of Michigan apples by consumers.

The next step is a closer relation between the grower and the consumer. Just how this will be brot about, is a matter dependent largely upon local conditions. Possibly no two communities can work the same scheme in toto. The quality of Michigan fruit will warrant the giving of a large amount of attention to this marketing phase of the subject, and since we have markets on every side, there is no excuse for not holding the title which our fruit merits.

We believe in Michigan apples. We know that with half a chance they will win their way to the front. We further know that Michigan growers are awake to the situation for it is thru this consciousness that the conditions suggested above have become public. What is needed is a campaign of education, more business integrity and a law stipulating how our fruits should be graded and providing proper penalties and an efficient police

supervision that every purchaser of Michigan fruit might know with certainty what he was buying without opening the package. We believe both growers and consumers would profit by such a measure. The middlemen might suffer, but judging from the revelations made we need not hesitate in saying that the distress they suffer may only be a just retribution for the damage done to the rest of society.

### THE NEED OF A CO-OPERATIVE SPIRIT.

Business men of the city work together; those of the country act independently. These statements are true only in a general way. The reason for the co-operative spirit shown among city business men and the lack of it in rural communities is not far to seek. The former is constantly dealing with other people; his daily work brings him in contact with them in a business way. This constant relation develops a confidence in his fellow men that will readily grow into an organization or association when it is shown that economical results can be obtained. On the other hand, the farmer does not deal with men so much as he deals with nature and with things. His daily work takes him to the fields or among his stock or in the orchards. The major part of his attention is demanded upon the farm. Incidentally, he sells his products to the city man; occasionally he deals with his neighbors, but when he deals with the city man, the conditions are made conventional for the farmer and there is no initiative demanded on his part. If he buys grain, stock or land or other property from his neighbor, the business relations are the same as when the city man deals with his patrons, but such transactions are so few that it does not develop in him that spirit of business confidence noted in the city man. It is therefore easily understood why the farmer has been the last man to make use of co-operative enterprises. The very conditions of his life have kept him from it. He has not been educated to it and it is folly to assume that he will with one stroke, organize his business with that of his neighbor in such a way as to eliminate much of the expense and disadvantage he is put to in carrying on his trade relations. Nevertheless, it is essential that the spirit of co-operation be developed. Organization of almost every kind and class of commercial business compels the farmer to organize with his neighbor farmer. It must come as a matter of protection, but in order to do this successfully, the farmer must have confidence in co-operative organizations lest they fail. This confidence can only be developed by beginning in a small way. When he realizes that there is real benefit to be derived and that it is possible for him to work together with his neighbors after some specified plan, then he can undertake larger things, but not until then.

It would seem, therefore, that the greatest good can be done our rural communities by encouraging farmers to organize to carry on their business in a small way only, to start with, and that as their education along this line is developed, larger undertakings can be started. It would also seem that any attempt to begin a very comprehensive organization, one that incurs a great deal of responsibility from people who are not accustomed to co-operative enterprises, would not only be unwise, but would ultimately be a detriment in that their failure is almost assured, and such failure would make those participating in the undertaking, as well as others, very reticent about attempting co-operation even in a small way. It is not our purpose to despise the farmer and exalt the city man; we only wish to encourage the former to acquire, even before necessity demands, what the latter has already developed to a considerable degree. To fruit growers the idea should appeal particularly strong.

### SPRAYING WITH LIME-SULPHUR.

Spraying with lime and sulphur can be done much later than was formerly thot. We were advised at one time not to use the mixture after the sap had started but during the past season it has been demonstrated that the spray can even be put on when the buds are bursting, without harm to the trees. And the efficiency of the mixture in destroying the scale pests is enhanced because it is still on when the insects are getting active. The improved method of making this mixture and its growing popularity as a summer spray will make it more common.

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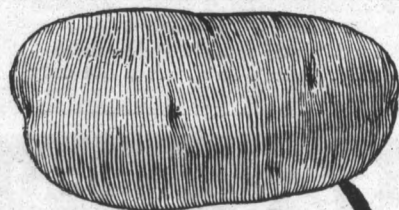
Put the Pinex in a clean pint bottle and fill up with the syrup, made as follows: Take a pint of Granulated Sugar, add ½ pint of warm water and stir for about 2 minutes. Take a teaspoonful every one, two or three hours. It tastes pleasant—children like it.

This simple medicine is also splendid for colds, whooping cough, bronchitis, incipient consumption, chest pains, etc.

Pinex, as you probably know, is the most potent form of Norway White Pine Compound. It is rich in all the well-known pine elements. None of the weaker pine preparations compare with the real Pinex itself. Your druggist has it, or will gladly get it for you.

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Strained honey can be used instead of the syrup, and makes a very fine honey and pine tar cough syrup.



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## SHOULD CARE FOR THE APPLE TREES.

Thru this state may be found the remains of once extensive orchards. On examination and inquiry it will be found that the reason for the failure or the dying out of an orchard is the lack of cultivation and care. These failures are most generally attributed to winter freezing, when the chief cause is summer drouth in land not so cultivated as to conserve the moisture of the soil for the use of the tree.

It is a very general practice among farmers at the present day to let orchards take care of themselves as soon as they have been brot to the bearing stage. There is little doubt but this is the cause of so many unprofitable acres of apple orchard. It is a very simple matter to understand that orchards must be fertilized for precisely the same reason that wheat or corn fields are fertilized. How often we hear farmers say, "my orchard is worthless. I receive no remuneration from it." But at the same time no manure is used. There is no pruning, no spraying, no cultivation. I ask how long would we raise wheat or corn on the same land year after year without returning to the land thus used the necessary ingredients for growth and sustenance of such crops? Still the old orchard stands on the same ground year after year receiving nothing while the farmer gathers whatever fruit ripens. There is no getting around the fact that farmers must in the future give more study to their orchards if they are to obtain anything like the full profit that really belongs to the owners. This is all the more evident now from the fact that these orchards are becoming so numerous.

To sell fruit to advantage it must be sorted. We speak of this matter to show a demand for merchantable fruit. We do not underestimate the value of sorting as a factor in getting the crops on the market; yet this should be considered as a last resort, and we suggest every known device should be brot to bear previous to this time to make this sorting out process as little called for as possible.

When the orchardist of one year hence in the light of science and extended practice, knows more accurately what varieties do best under all our varied conditions of climate and soil and know better as to what protection is needed, what kind of cultivation to give, how best to keep up fertility of the soil, that the trees may always have a healthy growth, how to prune and how to spray to combat insect pests, when that day arrives, there will be less need for grading fruit before taking it to market. Good practice in all these respects is what makes a large proportion of sound fruit.

But knowing these things and practicing them are two different considerations. In my opinion there is no department of farm work that stands so much in need of reformation as the care of the orchard. If the practice was anywhere up to what it should be considering the very accurate knowledge at command, our fruit business would have an entirely different outlook. In practice the average farmer orchardist is away behind his possibilities.

Macomb Co. C. A. HULBERT.

## TIMELY SUGGESTIONS FOR THE ONION CROP.

Growing from Plants—Raising from Seed.

From personal experience as well as observation, the writer has no hesitancy in saying that there is much to be said in favor of what is generally known as the new onion culture, or growing from the plants. While comparatively new in this country, in Spain and her possessions the method has obtained for more than a century. And we believe, that the larger Spanish sorts finding their way to this country and sold entirely by the crate as found in our markets are chiefly if not entirely grown by the transplanting method. As a matter of fact, we have known of American growers using these cultured methods and stamping them as "Spanish" who had no difficulty in obtaining equal prices as the genuine brot. While the plan might be deemed questionable, the fact remains that there is "much in a name," and that under more general culture, there would be no difficulty in placing the home grown even under the American stamp, side and side with the foreign crop.

At first it may seem that the work of transplanting is a slow and tedious job; and, indeed, it is, but when we remember that fully half the work of the after culture is eliminated the argument falls to the ground. Let us see: In the first

place the plants can go out into the open ground about as soon, if not fully, as the seed could be sown, and cultivation can begin upon the plants as soon as the setting is completed. No hand weeding or thinning will be necessary, but the work of tillage may all be done with the cultivator and hoe. With the seed grown crop, of course, the weeder can be started before the plants are up, and much labor may be saved; but the thinning and more or less hand weeding will have to be done. But all told, we are convinced that the seed grown crop involves more labor than the transplanted; and what is more, the bulbs grown by the latter method will be larger and of better quality than those grown from the seed.

## Growing the Plants.

As to house grown plants, they may be grown in hotbeds and some suggestions as to management may be helpful. The hotbeds are same as for ordinary plant growing, but it is more convenient to sow the seed in flats (shallow boxes), than to start it in broad bed surface. For best results, river sand is preferable for the surface if sown in the bed or if in flats use fine, rich manure for the bottom and cover about an inch with the sand. This surface will give a better quality of bulbs than ordinary hotbed soil. In brief, use rich, fine manure for upper surface of heating material and substitute the sand for the ordinary soil. To get a good, stocky growth, the seed ought to be started the latter part of February, or at the latest the first of March, and better if the former. This will give a good sized bulb by time for transplanting and this should be done as soon as ground and weather conditions will permit. If the ground is carefully fitted, and the marking carefully done, the transplanting can be done quite rapidly. Set in rows fourteen inches apart by four inches in the row, and cut back both tops and roots at least one-third. The Prizetaker and Gibraltar (sweet Spanish), are best varieties for this culture.

It is useless to attempt to grow good crops of onions on poor, half famished ground, so the soil must be enriched to the limit and should be full of humus.

## Growing From Seed.

This method, of course, is much better understood in this country than the former; but even in this case some timely suggestions will not be amiss. Generally speaking, any good corn, potato or vegetable soils will grow good onions; but none of the former crops will assimilate or require anything like the amount of fertility that the onion will take care of. So this must be the first consideration to make the soil rich as possible; and no rank, green manure should be used. Use only the well rotted and if a sufficient supply of this is not available, make up the deficiency with plenty of high grade fertilizer, poultry droppings or wood ashes.

The plants like the cool, moist weather of early spring and the sowing of seed should be just as early as the ground will work fine and mellow. The plants will not shiver even if the weather is cold but rather will thrive in it. Good seed is of utmost importance and a poor article is extremely dear at any price, so it is wise to look sharply before purchasing, and the safe way is to test as to vitality before buying. Of course, the purity of the strain cannot be determined by this means, but only the vitality. So the only safeguard as to the former contingency is the honesty and integrity of the dealer. Onion seed soon loses its vitality or germinating power and that older than last season's crop is worthless, so make sure on these points before investing in a supply. The crop is becoming more and more important each year and under favorable conditions is a money maker, and many an idle, worthless acre now, would prove a veritable gold mine if devoted to the culture of this crop.

Wayne Co.

J. E. MORSE.

## STARTING WALNUT TREES.

The best success I ever had in producing walnut trees from seed is to plant the seeds where I want the trees as soon as the nuts are gathered in the fall. Put two or more in a hill and then thin out or transplant as occasion requires, as soon as the plants are up. Always take off the hull, but do not crack the shell. If the hull is left on the strength of it is liable to kill the young plant as it starts. I started a row this way about 25 years ago along the road side. Later I sold the farm, but when I saw the farm last every tree was there. Those trees have borne for quite a number of years.

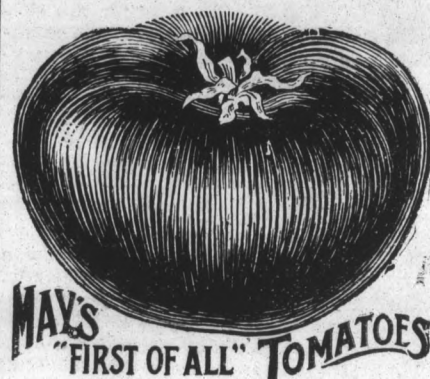
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If you will write for our big seed catalog at once and send us an order amounting to One Dollar or over within thirty days from the date you receive our catalog, we will send you absolutely free with your order, a large collection of new varieties of seeds, sufficient to grow \$50.00 worth of vegetables and flowers. Hunkel's Seeds are known everywhere—sow them in 1910 and grow record crops. Our 1910 catalog of Farm and Garden Seeds is bigger and better than ever. Write for catalog today and take advantage of our big \$50.00 free offer.  
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To get our new 1910 catalogue, "Everything for the Garden" (200 pages, 700 engravings devoted to vegetables and flowers), send us ten cents in stamps and mention this magazine, and we will send you free in addition, our famous 50c Henderson Collection of Flower and Vegetable Seeds, and will also send our new booklet, "Garden Guide and Record," a condensed, comprehensive booklet of cultural directions and general garden information.

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**on Free Trial**

No money in advance, no bank deposit, shipped direct to you at dealer's wholesale prices. Pay us out of the "extra profit."

### Horse Power Sprayer

No tree too high, no field too big for this kind of sprayer. For orchards, vineyards, potatoes, weeds, etc. No hand-pumping required—works automatically. One man can do more work with this machine than two men with the old style sprayers. Saves labor, time and money.

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The Man-Power Sprayer is an all-purpose machine for the medium-sized growers, cheap in price, light, strong and durable. All our sprayers are GUARANTEED FOR 5 YEARS. We pay the freight. Write a letter or card to-day—and we'll send you a Free Catalog of all kinds of sprayers, and Special Free-Sprayer Offer for first in each locality this season. Don't delay—Write now.

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Patented LIGHT RUNNING Hand CULTIVATOR

Runs 50 per cent easier and works 100 per cent better than any other hand cultivator. Has new design reversible hoe with patented adjustment for depth and angle. Skims ground or cuts deep, wide, narrow, pointed or round. Does close work, hand weeding required between plants only. Big labor-saver. Special tools for onions. Built of steel and malleable iron. Guaranteed to last indefinitely. Money back if not satisfied.

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1209 Cherry St., Erie, Pa.  
Agents Wanted Everywhere.

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Stop that loss from damage to your crops by bugs and diseases! Spray fruit and vegetables with "Orchard Brand" Tested Spray Materials—it will check disease and put the bugs on the run. Whatever you grow, there are "Orchard Brand" products with which to spray it—they are ready to use by adding cold water—no loss of time getting them ready.

### Orchard Brand Tested Spray Materials

are put up in cans and barrels holding one pound to six hundred pounds. Our interesting little Booklet E tells all about the "Orchard Brand" lines. We'll send you a copy if you wish and will tell you where to obtain these products in your neighborhood.

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## IT PAYS TO SPRAY

The Iron Age 4-row Sprayer gives perfect satisfaction. Puts solution just where needed and in fog-like mist. Pump delivers spray under high pressure, thus reaching every part of vine, effectively killing bugs and preventing blight. Has Orchard Brand spraying attachment. Write for free catalog illustrating this and other Iron Age tools.

**IRON AGE**

SAVE HIRED HELP

Iron Age Four-Row Sprayer

Nozzle Strainer Prevents Clogging

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## SPRAY FRUITS AND FIELD CROPS

and do whitewashing in most effective, economical, rapid way. Satisfaction guaranteed if you use BROWN'S

### Auto-Sprays

No. 1, shown here, is fitted with Auto-Pop Nozzle—does work of 3 ordinary sprayers. Endorsed by Experiment Stations and 30,000 others. 40 styles, sizes and prices in our FREE BOOK—also valuable spraying guide. Write postal now.

**THE E. C. BROWN COMPANY**  
32 Jay St., Rochester, N. Y.

## New Seedling Gooseberry Carrie?

is a live proposition for up-to-date people. It is proving a wonderful MONEY MAKER. Each year gaining in popularity with the best fruit growers. Write us today for full description (Name this paper).

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## Ohio Pedigreed Seed Corn.

Tested two years at the Ohio Experiment Station. The only corn that has a record of Sire and Dam. IMPROVED AMERICAN OATS. Our catalog tells all about them. IT'S FREE.

**JAS. W. COOK & SONS** Route No. 3, Forest, Ohio

## GIVE THE STRAWBERRY A PLACE.

For the last few years strawberry growing has been on the increase for the very valid reason that it is found to pay, when science and business unite in its conduct. An acre of strawberries rightly managed will prove to be the cream field of the farm. The enterprise is worth a trial in a family of boys and girls where one or more of them can make it a specialty. The satisfactory results would over shadow any youthful longings for the city's opportunities.

Spring is the best time to set plants, the plans for which should be matured well in advance.

The strawberry, so to speak, is jealous in disposition and hearty in appetite, inasmuch as it will not abide the presence of weeds and it feeds continuously; it is thirsty, too, and drinks heartily. But moisture must be supplied in that delicate filmy form that does not clog, never in the soggy, dripping style. So a clean, rich, moist—not wet—soil is essential.

The choice of plants is no less important; they must never be taken from old exhausted beds; only the specialist can supply to beginners worthy stock from his propagating garden. It is desirable to have a succession of fruit to prolong the season of ripening and avoid a rush and possible loss incident upon too large an area of a single kind. Very late and very early varieties are greater money makers than those ripening in midseason, because, the supply being less, prices are better.

The catalog descriptions are so full that even a novice need not greatly err in making his selections unaided. Color is a point to be considered. Only such as are deep red to the center are satisfactory either for canning or market. Be sure to secure both pistillate and staminate kind.

The manner of setting plants is an important item. Several methods are in vogue for spacing; the one more frequently chosen is to give them a foot to a foot and a half in the row with rows three or three and a half feet apart.

The individual plants are placed on a fine soft cushion of earth with the base of the crown on a level with the surface, the roots being spread out in accordance with their original manner of growth; finally the soil is compacted around them, leaving a light dust mulch uppermost.

While the first decided freeze of winter is on, a mulch should be applied, lightly, along the rows, more thickly between them. In the spring the litter is raked off the plants into the rows, where it remains till after fruiting. The practice of some growers at this season is to burn over the field to rid it of pests and dead foliage, after which cultivation is renewed.

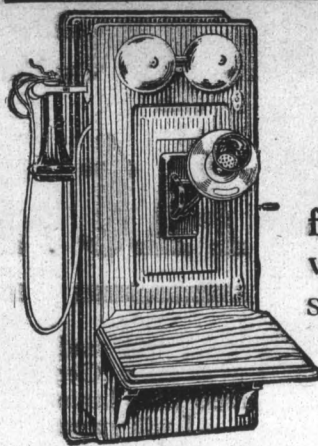
The first season there should be no runners allowed to take root and no berries left to ripen. To procure plants for a new bed, the most promising specimens of the original stock may be taken to propagate from the second year. After becoming well established, the new plants are removed to a separate bed where every needful attention is bestowed upon them until the following spring when they are transplanted to the fruiting bed.

A single generation of plants is deemed to have outlived its usefulness in from two to three years, after which the ground can find more profitable occupation in some other crop.

Oceana Co. M. A. HOTT.

## CONTROL OF BLACK ROT OF THE GRAPE.

Thus far Bordeaux mixture, made after the formula 4:3:50, has been adjudged the best remedy for the control of black rot. In investigations extending over three years and to four states, including Michigan, it was shown that five applications were as effective in the control of the fungus as six or seven. The applications made before the young shoots were out about eight inches appeared to produce no advantage in the control. It was further determined that an accumulative effect resulted from applying Bordeaux thoroughly each and every year. The first year there was 28.3 per cent of the sprayed crop showing damage by the rot while the next year only one per cent was affected. The check vines were a total loss both years. While the men conducting the work have hopes for the lime-sulphur preparations as a coming remedy for this trouble, their short experience with it in this connection does not warrant a recommendation. Further work with this mixture is justified by the promising results thus far obtained.



## Western Electric "Bell Grade" Telephones

for exchange or farmer line work are the recognized standard of the world.

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## Burpee's Seeds

Cost More than do usual commercial grades,—but (and this is a great big BUT!) they are worth much more than the difference in cost!

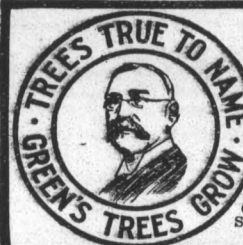
If you appreciate QUALITY IN SEEDS and are willing to pay a fair price for the Best Seeds that can be grown, we shall be pleased to mail **Burpee's New Annual for 1910**. An elegant book of 178 pages, with hundreds of illustrations and colored plates painted from nature, it is famous as **The Silent Salesman** of the World's largest Mail-Order Seed Trade. Do you want it? If so, write to-day! A postal card will do.

**W. ATLEE BURPEE & CO., PHILADELPHIA**

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**Green's North Grown Apple, Pear, Cherry and Peach Trees, Etc.**

Largest Supply of Apple, Bartlett Pear Trees, Roses, Etc., direct from producer.



**Green's Bargain**—10 Big Grape Vines for 98c, as follows: 1 Brighton, 3 Concord, 1 Moore's Early, 2 Regal Red, 3 Niagara White.

**Green's 25c Grape Offer**—One Niagara White, one Worden Black, one Brighton Red. Three grape vines by mail for 25c.

Send to-day for **NEW FRUIT CATALOGUE**, and a copy of **BIG FRUIT INSTRUCTOR**, all a gift to you. Established 30 years. Capital, \$100,000.00. Send 10 cents for Green's Book on Fruit Growing—worth \$1.

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## SEEDS

**\$1.50 Worth to Test Only 10 Cents**

We ask you to try our Superior Seeds. One trial will make a Customer. We will mail one full packet each of the following 15 Grand New Sorts for only 10 cts. These would cost at least \$1.50 elsewhere.

**BET**, Perfected Red Turnip, earliest, best.  
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**CARROT**, Perfected Half Long, best table sort.  
**CELERY**, Winter Giant, large, crisp, good.  
**CUCUMBER**, Family Favorite, favorite sort.  
**LETTUCE**, Bell's Prize Head, early, tender.  
**MUSK MELON**, Luscious Gem, best grown.  
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**ONION**, Prizetaker, wt. 3 lbs., 1000 bus. per acre.  
**PARSNIP**, White Sugar, long, smooth, sweet.  
**RADISH**, White Icicle, long, crisp, tender, best.  
**TOMATO**, Earliest in World, large, smooth, fine.  
**TURNIP**, Sweetest German, sweet, large.  
**Flower Seeds**, 500 sorts mixed, large packet.  
**Sweet Peas**, 1/2 oz. California Giants Grand Mxd.

Catalogue and Check for 10 cts, free with order. This roots returned on first 25c. order.

**J. J. BELL SEED CO., Deposit, N. Y.**

## Better Crops With Half The Work

You can't afford to farm without Planet Jr implements. They are the greatest implements ever invented to prepare the ground for big results and lighten labor. There are over two million Planet Jr users. Strong and lasting. Fully guaranteed.

No. 4 Planet Jr Combined Hill and Drill Seeder, Wheel-Hoe, Cultivator and Plow, saves time, labor, seed and money. Adjustable in a minute to sow all garden seeds, hoe, cultivate, weed, or plow. Pays quickly, even in small gardens.

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**Diamond Joe's Big White**—A strictly new variety. None like it. It is the Earliest and Best Big White Corn in the World—because it was bred for most Big Bushels, not fancy show points; because grown from thoroughbred inherited stock; every stalk bears one or more good ears, because scientifically handled, thoroughly dried and properly cured and had the most rigid examination. Big Seed Catalogue FREE. It tells about all best farm, grass, garden and flower seeds grown. Write for it today. Address

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**FOR PROFIT. My Free Booklet** tells all about the 150 acres I am growing for telephone poles. Beats farming two to one. Write today, H. C. ROGERS, Box 114 Mechanicsburg, Ohio.



Mail the Coupon for full explanation of our great 10 day free trial offer.



Grind your tools better and 25 times quicker than with a grindstone. 4,000 revolutions a minute.

## 7 MACHINES IN 1

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| 1. ROUGH GRINDER | 4. SICKLE GRINDER  |
| 2. FINE GRINDER  | 5. POLISHING WHEEL |
| 3. SAW GUMMER    | 6. RUST REMOVER    |
|                  | 7. HONE            |

# Sharpen Your Tools At MY Expense

I will send you a **Harman Special Carborundum Farm Tool Grinder**, with seven Genuine Carborundum Grinding Attachments, right to your farm for an absolutely free trial lasting 10 days.

I will guarantee that this Carborundum Grinder will **not** draw the temper from steel.

I don't want you to send me any money—not a cent. **I want to make you an offer so liberal that you simply cannot afford to refuse it.**

I will give you the use of this magnificent outfit for **ten days absolutely FREE**—no red tape, no papers to sign, no obligations of any nature. Just get the outfit, use it for ten days just as though it were your own, on your own work, sharpen your sickles, plow shares, cultivator blades, scythes, axes—anything that is dull—then, if you wish, return it to me at my expense.

## Now, I want to tell you why I am making this offer

We know that every progressive, up-to-date farmer realizes the advantage of always having sharp, bright tools to work with. You know how much more work can be done with tools which are always in good condition. You know how much easier your work is and how much longer your tools last. You know all these things and yet—you **DO** sometimes work with dull tools, don't you?

I want to prove to you that you can **easily** keep **all** your farm tools in good condition, **all** the time, with this wonderful, **simply wonderful** outfit which I will send you **free**.

## Genuine Carborundum (Diamond) Grinder—NOT an Emery Wheel

And Carborundum is the most wonderful abrasive in the world, even harder than the diamond. It is really manufactured diamonds, for it is made of the very same substances which go to make up the diamond. Carborundum is the most perfect grinding substance known. It is just as much harder than emery as emery is harder than ordinary chalk. A grinding wheel made entirely of pulverized South African Diamonds would not grind one bit better or faster than the genuine Carborundum wheels which we furnish with this superb machine.

Carborundum is an absolutely new substance. It is not simply a substance which is dug up out of the earth, in fact, it does not occur in nature at all. Carborundum is manufactured in the most terrific heat which man has ever been able to produce. A heat so great that it will actually burn up a common brick like so much gun powder. And in this incomprehensible heat is produced Carborundum. **It is the heat in which the worlds were formed.** Every one of the beautiful iridescent, needle-like crystals is so hard that it will actually scratch the diamond itself. It is these crystals which are crushed up and made into the grinding wheels. It is these inconceivably hard and sharp crystals which cut through the hardest steel more easily than the finest emery wheel will cut through soft copper.

## SAVES TIME—EFFORT—MONEY!

You can do the same work in two minutes on a Carborundum wheel that would take you at least a half an hour on a grindstone, and do it better. **And you can operate The Harman Special Farm Tool Grinder for half an hour with less effort than would be required in running a grindstone for two minutes.** Carborundum will grind 25 times faster than the grindstone and 8 times faster than the emery wheel.

**We want to prove these things to you and at our expense.** We want to send you the Harman Special Farm Tool Grinder for a ten days' trial right on your own farm. See for yourself how it will grind and sharpen every tool on your farm. See for yourself that it is time to throw away the grindstone. Send the free coupon for our free booklet describing this wonderful substance Carborundum. **Mail the coupon today.**

## LASTING—BINDING—GUARANTEE

Carborundum wheels are so much harder than the hardest steel that no amount of grinding seems to have the slightest effect on them. Carborundum will cut the biggest steel file you have in two in five seconds. We give a lasting, binding guarantee with every tool grinder.

### Carborundum will NOT draw the temper from steel

Carborundum wheels will not wear in spots or become lopsided. They will not glaze over. They are not only hard, but they are equally hard throughout. There are no soft spots in a Carborundum wheel. Many have been in use for 10 years and show hardly a bit of wear. Carborundum wheels will positively not draw the temper of the finest tool. The reason for this is that Carborundum does not heat the article which is being ground as does an emery wheel or a grindstone. Carborundum cuts and cuts quickly—it cuts so quickly that the steel does not have time to heat.



# SEND THIS FREE Coupon

## Remember 10 Days' Free Trial

**Send the Coupon Today and Get our Grinding Tool Catalog FREE.** Also our free booklet explaining all about Carborundum, the newest and most wonderful substance known.

Don't wait a minute. Send the free coupon today and post yourself on this wonderful offer. Learn all about the Harman Special Carborundum Farm Tool Grinder. Sharpen every dull tool on your place positively free. **We let you keep the machine for 10 days, and then if you wish, send it back at our expense.** But mail the coupon today and get our free booklets and circulars, and get our FREE trial request blank. There is no obligation. You will be amazed at the wonderful results you will get from using Carborundum. Anything you sharpen is sharpened better and quicker. Send for our free booklets today. Let us tell you what Carborundum is and what it will do with every tool on your farm. Get our free booklets and our special limited offer. Remember 10 days' free trial. **SEND THE FREE COUPON NOW.**

**HARMAN SUPPLY CO. 160 Harrison St. Chicago**



Grinding an ax with the Harman Special Carborundum Farm Tool Grinders.

## THOUSANDS IN USE

### Read These Letters of Praise

#### Best For All Kinds of Tools

Enclosed you will please find money order for Harman Grinder which I received about ten days ago. Will say that I have tried it on everything from a razor to a plow point and am well pleased with the machine. It is the most complete section grinder I ever saw, and for grinding all kinds of tools I never saw its equal.

W. L. PRYOR,  
Titusville, Ind.

#### Abused But Still Works Well

We think the grinder is a great machine. It does fast work; we have tested it to the extent of abuse, but all rough tools yield to it; just what is claimed for it.

HOOVER & PERSHING,  
Muncie, Ind.

#### Beats All Grinding Machines

The Harman Grinder arrived yesterday in good shape. I put it together and tried it on a set of moving machine bars, and I was astonished at the work it did. It beats all the grinding machines I ever saw, and I have seen at least six different kinds. I can get the bar holder just right and it will grind two sections on the side of the stone without touching it (the bar). I also tried the tool grinder. I found five cold chisels and a center punch, which as usual with all farmers, were as dull as possible, some of them being one-eighth of an inch on the edge. I ground them to a fine edge and finished a very smooth fine edge on polishing wheel, and just think, I was just 12 minutes and did not hurry at all. And you know cold

chisels sent out with mowing machines are generally tempered pretty hard. I am certainly going to keep the machine, and if I could not get another I would not take any money for it.

PHILIP CARLYOU,  
Dunkirk, N.Y.

#### She is a Dandy, Very Well Satisfied

I received your machine all right and am very well satisfied; she does better than I expected. She is a dandy. Every farmer ought to have one.

ANDREW GINHAL,  
Brainerd, Minn.

#### Cuts Steel Like Wax

Enclosed please find check for the grinder. I am very much pleased with it and I find it cuts down steel as fast as wax in a fire. Thanking you for your attention and living up to your advertisement, I am,

A. SIMPSON,  
Cambridge, Mass.

#### Makes Cross Cut Saw Good as New

I received your tool grinder the 20th and have given it a thorough trial. It does the work fine. I have gummed a cross cut saw and it is as good as new. The Harman Grinder is a dandy, and I would not be without one.

S. A. BAUGHMAN,  
Bloomfield, Ia.

#### It Cuts Splendid

I received the grinder on the 16th inst., have tried the tool wheel and it is O. K. I like the way the machine works as far as try; it cuts splendid.

C. J. TOWELL,  
Annville, Jackson Co., Ky.

### HARMAN SUPPLY CO.,

Dept. 3632, 160 Harrison St., Chicago, Ill.

Without any obligations on me please send me FREE your catalog explaining your Carborundum Special Farm Tool Grinder, also full particulars of your ten days' FREE Trial Offer, also the interesting story of Carborundum.

Name \_\_\_\_\_

Address \_\_\_\_\_

NO LETTER IS NECESSARY; JUST SEND THE COUPON