

MICHIGAN FARMER

AND LIVE STOCK JOURNAL.

PUBLISHED WEEKLY. ESTABLISHED 1843.

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

VOL. CXXXIII. No. 9.
Whole Number 3466.

DETROIT, MICH., SATURDAY, AUGUST 28, 1909.

75 CENTS A YEAR
\$1.50 THREE YEARS

FARM NOTES.

Treating Seed Wheat for Smut.

How is seed wheat treated with copper-sulphate? Is there a better treatment? If so what is it?

Washtenaw Co.

E. W. M.

The copper sulphate treatment for smut is not largely used at the present time. The formula recommended for use in treating seed oats for smut is one pound to ten gallons of water, the grain to be thoroughly sprinkled with the solution. For the treatment of seed wheat stronger solutions are recommended, ranging from five to ten gallons of water to one pound of the blue vitriol, according to the source of the advice. The formalin or formaldehyde treatment has, however, very largely displaced the earlier methods advocated for the treatment of seed grain for smut, owing to the fact that it has no poisonous effect on the grain, which is an objection with some of the other treatments advocated. This method of treating the seed grain has another strong point in its favor, in that it involves less labor than any of the other methods which may be employed.

The material for this treatment, which is known as formalin, or 40 per cent formaldehyde solution, can be obtained at any drug store and is comparatively cheap. It should be mixed with water at the rate of one pound to 40 gals. of water. It takes about one gallon of the mixture to treat a bushel of grain, so the amount of solution required can be easily figured. The mixture having been provided, place the grain on a tight, clean floor in piles of convenient size to be thoroughly stirred and mixed. Then sprinkle the solution on these piles, stirring thoroughly to the bottom as long as the liquid is absorbed. After an interval of a few minutes, or after all the piles have been treated, repeat the operation and repeat again if necessary to get all of the kernels thoroughly wet. At least three quarts of the mixture per bushel of grain should be absorbed and one gallon will not be too much. The grain should then be covered with a canvas for about two hours, as the formaldehyde is a rather volatile liquid, and the fumes from its evaporation will aid in the killing of the smut spores. The seed may be all shoveled into one pile to facilitate covering. After the canvas is removed the grain should again be shoveled over at intervals to dry it out, when it will be ready for sowing at any time. Care should be taken in handling the treated grain that it does not again become infected, and as a precau-

tion the shovels, the grain bags and the drill should be disinfected by soaking the former and spraying or sprinkling the latter with the solution. If preferred, the grain may be dipped in the solution by immersing it in the bags in a suitable vessel for ten minutes, after which it should be allowed to stand in the bags for two hours and then spread out to

due to the presence of smut and is generally conceded to be satisfactory and the best available treatment to use under average conditions. The saving is very material in any case where the smut spores are present in the seed, and they will generally be present in sufficient numbers to make the treatment a profitable precaution, even where the

to build such hopes upon. It must be remembered that alfalfa is difficult to get established for the first time upon most of our soils where it is given a clear field and the best of conditions. Relatively it is nowhere near as sure a crop as our common kinds of clover, hence one could not reasonably expect better success in seeding alfalfa in corn than

could be expected with the common clovers, and these cannot be so seeded with any degree of certainty that a good stand will be secured. When the conditions are just right, when there is plenty of moisture and good weather for the germination of the seed and the development of the young plants the plan works out finely. We have seen many very fine seedings of clover that were secured by sowing the seed in the standing corn at the last cultivation. But we have observed more failures than successes from the use of this plan. If there is not sufficient moisture to germinate the seed quickly or to keep the young plants growing rapidly after they come up, the stand will be poor and the plants will go into the

winter in poor condition to survive its rigors. Or if there is a heavy rain just after the seed is sown it may be washed badly on rolling ground and a poor stand secured for this reason. It is not a plan which is a safe dependence, altho in a season when all the conditions are right it may be profitably employed in case it fits in well with the regular crop rotation.

The same fact might obtain in the seeding of alfalfa. Experience with this crop in Michigan has demonstrated that there seems to be no best season of the year to sow it, and in a season when all conditions seem to favor the plan it might be profitable, and would certainly be an interesting experiment to try. The plan would have the advantage of saving a season's time over most other methods by which alfalfa is seeded, and the weeds would certainly bother it less in case it gets sufficient growth to live thru the winter and make an early and vigorous start the following spring. But it should be remembered that a comparatively thick and even stand of alfalfa is essential to the highest success with the crop, and that plenty of seed should be used if it is sown in the standing corn as some of the plants would be likely to be destroyed in harvesting the corn.

While alfalfa culture promises great things for Michigan agriculture, it is still in the experimental stage, and the farmer who tries it out should apply to it a de-



Farm Home of George Kent, Huron County, Mich., who Discusses the Automobile Question on Page 146.

dry, but sprinkling or spraying as above described is more generally favored.

This form of treatment has proven uniformly successful for the prevention of stinking smut or bunt in wheat, from which the greatest losses occur, but it has not proven as effective as the hot water treatment for the loose smut of grains. This treatment is given by soaking the grain in cold water for from four to eight hours, then dipping it in hot water at a temperature of 130 degrees F. for from five to ten minutes. However, the formalin treatment will give an economic degree of protection from losses

seed appears to be free from the fungus.

Seeding Alfalfa in Corn.

Have you any one's experience seeding to alfalfa in the last cultivation of corn? What would be the objection to this plan? Washtenaw Co.

SUBSCRIBER.

Some years ago one correspondent reported success with seeding alfalfa in corn, and from this experience was rather enthusiastic about the possibility of using alfalfa in the regular crop rotation as clover is used, instead of devoting a field to this crop for a series of years. However, the seeding of alfalfa in standing corn is too uncertain a proposition



Harvest Scene on the Farm of Francis Walker, of Lapeer County, Mich. Twenty-nine acres of rye, 17 acres of which was in rye last year, threshed 700 bushels. Mr. Walker believes the good yield due to the fact that the field was top dressed with stable manure and believes the proper place to apply manure is as a top dressing on fallow ground intended for winter grains.

gree of thot and judgment which will probably not be required when we have become more familiar with the requirements of the crop for successful growth in our state and when our soils have become generally inoculated with the bacteria which find a welcome home in its roots and which seem to be so vitally essential to the profitable growth of the plant.

IS THE AUTOMOBILE PRACTICAL FOR THE FARMER?

Replying to your request for a letter upon the practicability of an automobile for the farmer, will say I will do my best to set forth my ideas upon the subject. Having purchased an auto and run it over 3,000 miles I can say I have had some experience, at least. Now as to whether it is a practical proposition for a farmer to own an automobile depends so much on circumstances that it is a hard question to answer in an offhand way. One might answer as easily whether it is practical for a farmer to put \$2,000 into a house to live in when he could get along with one that cost \$1,000 and put the other \$1,000 away, or is it practical for a farmer to own a nice horse and carriage to drive when he could get along with the draft horses and wagon. The \$2,000 house has many advantages and conveniences over the \$1,000 house that make life worth living, so has the driving horse and carriage over the lumber wagon and work team. And while I do not wish to deteriorate against the usefulness of the horse, for they have always been my best crop on the farm, I must say the automobile has a great many advantages over the horse, in a country that is suitable for an automobile to run. I should say to the farmer that lives where most of his driving would be in a hilly, sandy country, he had better leave them alone, at least until the road system has been perfected or the auto improved more. To be sure, automobiles will go thru some very bad roads and climb hills that will surprise one, but it is a hard strain on them and it costs much more to run them. Besides, there is no pleasure in riding when you must be using all your power to get thru. They would wear out too fast, and they cost a lot of money, so I don't think it would be practical for an ordinary farmer to own one under those circumstances.

On the other hand, the farmer that lives where there are reasonably good roads, even tho it be moderately hilly, providing the hills are hard, then there is a great deal of enjoyment and satisfaction in having an automobile, if not economy.

In regard to the cost of running and up-keep of an auto depends largely upon the roads and the man that runs it. Some men wear out a grain binder in five years, others make it last ten. In a hilly country three horses are used on a binder but in a level country two horses often do the same work.

It is the same with an auto. One man will run it for all there is in it and another will be careful and make it last twice as long. On the level, hard road it will fly along at a great speed with one-half the gasoline that is required on a heavy, hilly road. My experience was this: Living in Huron county, on a main traveled road that goes up thru the center of the thumb to Port Austin and Pt. Aux Barques, summer resorts where one can see autos of all descriptions going by most any hour of the day, I easily caught the auto fever and purchased a two-cylinder 10 horse power runabout, after a careful study of the different kinds, and began operations. Never having had any experience with gasoline engines, I had it all to learn, and, like all beginners, had some reverses until I understood my machine, but had less trouble than I expected, and I can say this much for the reliability of my auto, that I have always went where I started for and come back again on my own power. I got into a mud-hole once and was about half an hour getting out but would have gone thru it if I had had chains on my wheels. There have been times after a heavy rain that I use a horse to drive with instead of taking the auto. It is possible but, not always practical, to run when the roads are slippery, especially on clay roads. I have never yet known anything about tire trouble, never had a puncture, altho I have made trips as far as 300 miles and went thru four counties, and in one place had to run over about 10 rods of crushed stone that had been drawn into the road and had not been rolled down. It was very sharp, cut the tires some but did

not let any air out. My experience in the cost of running a small car is: On a good, hard level road, one gallon of gasoline will run me about 20 miles; if the wind is behind, pushing me along, I can go farther. It all depends upon the labor your engine has to do, and one gallon of lubricating oil will last about 250 miles. A larger car, of course, costs more to run. My car weighs 1,100 lbs. and is not so hard on tires as a heavy car.

Other men that own autos may make different statements in regard to costs, but I am simply speaking for myself and my car. I am not doing any advertising stunt, for I shall not mention the name of the makers.

As to its advantages over the horse, it simply cuts distances into halves and quarters. The man who lives five to ten miles from town is within a few minutes reach of it.

In fact, he can be there by the time he would have his horse and buggy ready to go. This might mean a great deal in case of sickness or some other emergency. On a hot, dusty day one can ride along perfectly cool and the dust all behind, with the pleasurable sensation of having a power carrying you along that responds to the lightest touch with the ease and comfort that is not found in a carriage, and I might add the auto don't tire, don't sweat, and doesn't need a fly net.

And now as to the question of economy compared with the horse. I think, mile for mile, they will not cost as much, considering first cost and maintenance, but on the other hand, Brother Farmer, you can figure on going at least five times as much. You may even hunt up excuses to go, and you may get as absurd as to think your wife is a dear old girl when she tells you she is all out of tea and wants you to take her to town. She will catch the auto fever as well as yourself. She may kick on your using tobacco or spending money otherwise but she won't say anything about your gasoline bills. So there is the economy side of it. But, summing up the whole thing, they are a great convenience, the same as the rural telephone, the rural mail delivery, the daily newspaper, etc., that the farmer now has. They all help to bring the farmer out of his isolation and make his vocation one to be desired, and his life worth living.

Huron Co.

GEO. KENT.

PASTURING MEADOWS AND NEW SEEDING.

A subscriber writes that he does not see how he can follow my advice about pasturing meadows and new seeding, because his pastures are short and the only way he sees in getting thru the summer is to turn his cows into the meadows and if they get too short later on, turn them into the new seeding, which is fine. Now he certainly can get along without doing this, if he believes it is a bad practice, and believes it thoroughly enough; because I do not do it and I am also short of pasture. We have to feed the cows hay now twice a day and a grain ration once a day and, in fact, they get very little at the present time from the pasture. We have one meadow that is so situated that it is fenced so that we could turn them in, but I will not do it because I am convinced that we would lose money in the long run. Now, in the first place, if the grass has made growth enough so that there is pasture enough to amount to very much, it will pay to cut that and draw it to the cows rather than to turn the cows in and let them eat it off, because they will waste about half of it. They will tramp it into the ground, much of it will be soiled by the droppings of the cows, so that they will not get over 50 per cent of it, probably. Now, we can cut this, cock it, draw it in and feed it to them and it is eaten up, every bit of it. Of course, it takes a little labor to do this but it can be done quite rapidly. I am positive that I will get more out of it by feeding it in the barn than I will by turning the cows in and letting them help themselves. This is the meadow containing about 19 acres from which we secured 68 loads of hay at the first cutting. We had one good shower of rain lately and it is making a fine growth. If we should get another rain to help it along, it will make quite a cutting for a second crop, and we shall probably cut it, but I would not want the cows tramping over this field this fall. I believe it would do more injury than I would get benefit out of the grass they would eat. Now when it comes to new seeding I am absolutely opposed to the

cattle tramping over new seeding. Our seeding is splendid this year. We have 30 acres of as fine a catch of clover as I ever had in the world, and it is going to get so large that we will have to clip it with the mowing machine. This field is not fenced so that we could pasture it, anyway. If it was I wouldn't have the cows turned onto it for anything. I am sure that it would be the poorest kind of economy. While they would get considerable to eat off this new seeding of clover, I am sure that in the long run we would lose by turning them in, because they would injure many of the plants by tramping on them that otherwise will survive and make good, thrifty plants next year. I would rather buy hay, and grain, too, to feed the cows during a shortage of pasture than to turn them onto the new seeding. It is wrong and you will eventually lose money by doing it.

COLON C. LILLIE.

EXPERIENCE WITH ALFALFA.

In the first place I made too mistakes in sowing with grain and of course made two failures in getting a stand that suited me. For my third endeavor I selected a piece of ground which had been in hoed crops for a number of years and heavily manured each year, plowing it in April and keeping it cultivated till July, when I seeded it at the rate of 20 lbs. per acre.

On the night following my sowing we got a very heavy shower and I got a magnificent stand. On part of the field I had sown, with wheat, red clover the fall before. So that in the fall after sowing my alfalfa the red clover was knee high and in full bloom, and as I did not wish it to go to seed I turned my cattle and sheep into it thinking they would not trouble the alfalfa, but I found that I had made a great mistake as they fell upon the alfalfa and eat it nearly into the ground. I gave it up, thinking it was entirely ruined, but the next spring it came up as green as a bed of lettuce and since then, now five years ago, I have mown from two to three crops each year, of the very finest of hay and the stand of alfalfa is now as good as ever and all without being manured or fertilized in any way.

Oceana Co.

A. C. GOWDY.

Steel Wheels for Farm Wagons.

Farmers whose wagons are in good serviceable condition, with the exception of the wheels, will be glad to know that they can, at very small expense, make them better than new. All that is required is to remove the old wooden wheels and put on a set of steel wheels. Write to Empire Manufacturing Co., 14-A, Quincy, Ill., for a copy of their booklet on wheels and wagons. This booklet is a veritable encyclopedia of information and will prove of interest to every reader of this paper. It is mailed free.

Electric Lights for Farmers.

Anyone who has enjoyed the advantage of a house equipped with electric lights will at once testify to their superiority over other methods of lighting the home. Heretofore very few farmers could avail themselves of this advantage for the very good reason that to do so, they must live in favored localities where the current could be secured or install expensive plants for the production of the electrical fluid. The Michigan Storage Battery Co., 69 Atwater Street E., Detroit, Michigan, whose ad appears in another column of this issue, will be glad to demonstrate how any farmer can light his house with electricity at small cost. Call at their factory at the above named location while at the State Fair and let them demonstrate this fact to you.

Hector, N. Y., July, 14, 1909.

Humane Horse Collar Co.,
Chicago Heights, Ill.
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Messrs.:—The collar you sent—the style-B collar—is being used now every day on one of my driving horses with perfect satisfaction; and the heavy one on one of my team horses that I should have to abandon the use of in a horse collar—but in the humane collar he is working with ease every day. I am a man not given to gush—my reputation always has been, as all my writings prove, to speak just what I think. I do not hesitate to say when that man, J. D. Whipple, invented the humane horse collar, he invented the one and only device which enables the horse to use his full strength under all conditions without inflicting more or less pain, if not create actual injury. Had he been alive and invented this collar one hundred years ago, a balky horse would be a freak. Ninety per cent of horses balk and refuse to pull loads simply because the collar hurts them to do so and when the disposition is spunky or sullen, they refuse to be hurt.

Cordially yours,

C. D. SMEAD,

Veterinary Adviser for the Tribune
Farmer of New York City and National
Stockman, of Pittsburg, Pa.

REMARKABLE The premiums we are offering for a small club of trials. See this issue.

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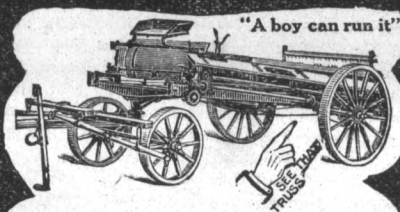
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I am willing to Take Any Case of Catarrh, No Matter How Chronic, or What Stage It Is In, and Prove, ENTIRELY AT MY OWN EXPENSE, That It Can Be Cured.

Curing catarrh has been my business for years, and during this time over one million people from all over the land have come to me for treatment and advice. My method is original. The treatment is both local and constitutional effecting a cure by first curing the cause. Thus my combined treatment cures where all else fails. I can demonstrate to you in just a few days' time that my method is quick, sure and complete because it rids the system of the poisonous germs that cause catarrh.

Send your name and address at once to C. E. Gauss, 4921 Main St., Marshall, Mich., and he will send you the treatment referred to. Simply fill in name on dotted lines below.

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LIVE STOCK

BREEDERS' PROBLEMS.

Selecting the Ram.

In the last issue we commented on the culling of the breeding flock so as to insure a greater profit from this branch of the farm on which sheep are kept. After this culling is done, and the flock of ewes is made as uniform as possible, consistent with the retaining of the best producing females, the selection of the ram to which they are to be bred is a matter of the next importance. A good many owners of sheep do not give this important matter sufficient consideration. It is often said that the sire is half the flock, but where the flock is one of grade ewes, he may become much more than half the flock if he is a pure-bred and prepotent individual. And no sire ought to be used on any flock that is not pure-bred. It might be added with equal force that no sire should be used that is not a prepotent sire, but, unfortunately, a certificate of registration does not insure prepotency with anything like the certainty that it insures the pure breeding of the individual to which it relates. But the pure-bred sire that has been bred for generations along certain well defined lines, and that has the concentrated blood of many prepotent sires in his veins, is far more apt to measure up to the highest requirements in this respect than is the sire of mixed breeding, which has neither type nor consistent breeding back of him. Many sheep owners, and especially owners of small flocks, hesitate to pay the small additional price required to purchase a pure-bred sire, but if they would stop to consider the matter a little carefully they would not hesitate to make the additional investment. Even if the ram is not bred to more than 25 or 30 ewes, the better quality of the first lamb crop will more than repay the extra cost of the pure-bred ram, and the additional gain derived from him in future years, as well as his additional value when sold will be clear profit, to say nothing of the improvement which may be brot about in the flock by retaining the ewe lambs for breeding purposes.

Having determined to buy a pure-bred ram, the first essential step has been taken. The question of breed will next arise. This will, of course, depend somewhat upon the type and breeding of the flock. If an attempt is to be made to improve the flock by the keeping of the ewe lambs for breeding purposes, the ram should be of a breed that will blend with or readily build upon the foundation stock for such improvement. In other words, a violent cross should not be made use of for this purpose, altho it is sometimes useful for special purposes as the success in raising feeding lambs from merino ewes bred to middle wool rams attests. But while these made excellent feeding lambs, they would not have made good foundation stock upon which to build up a flock. For this purpose it is better to select a ram from a breed which is not widely different in type from the ewes upon which he is to be bred. Then, when the breed is once selected, the wise farmer will stick to it, and not be continually changing, using a ram of one breed this year and of some other breed the next. This will lead to nowhere, so far as the establishment of type is concerned.

The breed having been selected, the choosing of the individual demands the careful consideration of the flock owner. This should be done with a full knowledge of the shortcomings of the ewes upon which he is to be used, and he should be selected with a view of overcoming these in the next generation. Here the advice of the breeder from whom he is purchased will be of value, and should be secured. But independently of this the purchaser should have studied the question of type and have determined in his own mind some of the more essential points which are to be desired in the sire to be purchased. Of course he does not need to heed the fine points in breed type as closely as the breeder who is purchasing sires to use on pure-bred ewes, but he should have a well defined idea of the kind and type of sheep which he needs. As in the selection of ewes, the first requirement is health and vigor. The conformation should also be good, and compactness and strength, with good carriage, should be sought for, rather than size without these important characteristics. Then, when the ram that suits is found, it is a mistake to let a few dollars in

price stand in the way of the purchase. If the flock owner proves to be a good judge, the sheep which he will select will be one that the breeder is not particularly anxious to sell, as will generally be indicated by the price, but if he is the best adapted to the use for which he is needed the additional investment will be a profitable one. The best is none too good, even for use on a grade flock, and at anything like a fair price will prove the cheapest in the end.

TAPE WORMS IN SHEEP.

I am losing lambs, as J. F., of Hillsdale is, only we find tape worms in some of them and we also find some of them are troubled with nodular disease. What strikes me as being rather peculiar is some of the lambs die on a full stomach; but the small intestines are empty, except that the bowel is fairly well filled with tape worms. We have taken nearly 100 feet out of one lamb. Can you give a remedy for such worms and where do they come from? The sheep seem to be bloodless. This is a matter which concerns me and it must interest every sheep breeder in my locality and perhaps other parts of the country where your paper is read, therefore I hope you will answer my letter fully and enlighten me on tape worms for I can't save my sheep. Lenawee Co. S. H. BACHELDER.

Taenia Expansa is the scientific name for Tape Worm and, strange to say, it has caused great loss to sheep raisers, not only in America, but both Australia and Germany, also in other countries. Its cystic form is not by any means too well understood. However, in order to check its increase I know of no better plan than by watching what sheep pass the ripe, detached segments, shutting them up while treating the sheep, burning not only the worms that are expelled but all excrement which they pass when the vermifuge is given. The tape worm of sheep varies in length from eight to thirty feet and I have seen them much longer; they are a dirty white color, the head is about one-twentieth of an inch wide and the tail nearly a half inch wide, but flat. Sheep that have them are usually pale in the skin and the mucus membranes are white instead of red. They generally cause scouring, much emaciation, great weakness and sometimes death. Now in order to obtain the best possible results from treatment sheep should be fasted for 15 hours. I have obtained the best results by giving Kamala, following it a few hours later with a brisk dose of epsom salts or castor oil. Oil of turpentine given in milk gives fairly good results and I have obtained excellent results by giving etherial extract male shield fern. Try giving three drams of kamala in 3 or 4 ozs. linseed gruel or milk. This is a full dose for an adult sheep, if the bowels do not move freely give two or three ounces of castor oil four hours after the kamala was given. If this dose fails to bring results give one dram male shield fern in three or four ounces castor oil and if it is not convenient try the turpentine and milk, giving with it a teaspoonful of powdered areca nut, and no harm to add half a teaspoonful oil male fern, giving it in four ounces of sweet milk or raw linseed oil. Remember when giving sheep a drench of this kind they should be allowed to stand on their feet in a natural position, the head should be raised only high enough for the medicine to run into back part of mouth, the common custom of pinching the throat is not only wrong but dangerous for it induces coughing, some of the medicine may go down the windpipe into the lungs, causing great irritation and bringing on bronchial pneumonia, followed by death. The medicine should also be given slowly for if poured down rapidly it might get into paunch and fail to do much good; but be sure and not hold the head too high when giving the medicine. A short time ago I gave treatment for stomach worms. You no doubt clipped from the paper what I wrote and have it on file for future reference. Just a word in conclusion, be sure and purchase drugs of a reliable druggist or you will fail to get satisfactory results in the treatment of worms. W. C. FAIR, V. S.

CORN VERSUS OATS AS HORSE FEED.

The Ohio Experiment Station recently conducted some experiments to test the widespread belief that oats are superior to other grain as a feed for horses. Six mature grade Percheron geldings were fed on a basal ration of clover and timothy hay, three receiving oats and three corn as a supplementary ration. Estimating corn to be worth 40 cents per bushel, oats 30 cents per bushel, and hay \$8 per ton, at the time the experiments

were made, it was found that the average cost of food per hour of work was 3.3 cents for the corn-fed horses and 4.54 cents for those fed oats. The use of corn to the exclusion of other grain for a period of 48 weeks was not found detrimental to the health of work horses, and they endured hard work during the hot weather as well as those receiving oats. When mixed (clover and timothy) hay was fed to mature geldings at general farm work, ear corn was practically as efficient, pound for pound, as oats. A drop in weight of the corn-fed horses coincident with the beginning of the use of shelled corn indicates that ear corn is to be preferred above shelled corn for work horses.

HOGGING DOWN CORN.

Of late years this method of disposing of a portion of the corn crop, has been becoming extremely popular. Instead of being the lazy man's way it is fast becoming the method of our most progressive and advanced farmers. By its use, corn is converted into pork in the easiest and most sensible way that can be used. Last year we had a carload of pigs which we summered over on clover pasture, together with a small amount of ear corn. In the bunch were the spring pigs from eight sows which had also run on the clover. As soon as the green corn was ready to feed we began to cut a small amount each day and to give it to the hogs. It was thoroughly relished by them, being eaten until hardly the bare stalks remained. Not only did it make a good feed but also got them so thoroly accustomed to the green corn that we felt that there was absolutely no danger in turning them into the corn field.

We have forty rods of 30-in. woven wire hog fencing. This we take up and move around whenever we please. It is a very easy matter to take it from the posts, roll it into a bale or roll, and to put it on a sled. We just keep the stretcher attached; eight or ten posts suffice for the forty rods. We don't dig the holes very deep, and then the posts are set in with the little end down in order that they may be pulled out easily. Two men can change it in a half day.

The smallest field we had was a piece of twenty acres. We hated to turn the bunch in the twenty, so we fenced off an eight acre piece. A few days ago, one of our neighbors spoke of wiring the fence directly to the corn. A strip of rape was sown along one side of the field and, oh! how they did go for it.

The hogs were given the run of a twenty-acre pasture lot in which there was plenty of shade. In it was a large well from which we got water. We had taken care to put a few loads of sawdust around the troughs in order to prevent the hogs from making unsanitary wallow holes. That is the best remedy for that trouble which we have yet found. A supply of good water is an imperative necessity to a bunch of fattening hogs in September.

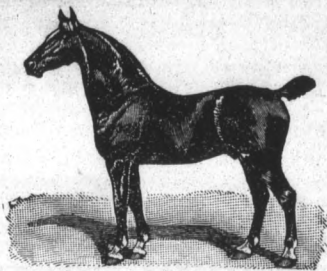
We were surprised at the regularity of the hogs' feeding habits. From eight in the morning until four at night it was almost impossible to find a hog in the field. Also we were surprised at the way in which they cleaned up the field, for there was actually less corn left on the ground by the hogs than is usually left when the crop is cut with the binder. That being our first experience, we expected that a great deal would be wasted, but we were agreeably surprised. Later in talking with others who have had the same experience we have found the same to be true. In some reports made by the Department of Agriculture, that same fact was especially noted.

Of course, they did not clean up all the fodder but it was not badly mused. Indeed, it was in such shape that when the sheep were turned on it they ate all but the bare stalks. We cut these up and burned them, plowed the eight acres in the fall, and put it to oats this spring. The remaining twelve acres were put out on the corn stubble. The whole piece yielded 55 bu. to the acre, yet I think that the eight acres yielded fully eight or ten more bushels to the acre than the other.

We thot the field would have yielded about 35 cwt. of corn to the acre. The hogs brot over \$33 per acre for their gain. Counting husking at three cents per basket, that makes \$2.63 saved on an acre, cutting at \$1.50 per acre and you can see how we received the equivalent of about \$37 per acre for our corn so fed without the bother and expense of cribbing and hauling it to the elevator or the equal bother of feeding it out. Several experiments conducted under the supervision of some of the separate stations

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A Safe, Speedy and Positive Cure for Curb, Splint, Sweeny, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

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THE NEWTON REMEDY CO., Toledo, Ohio.

show profits, or rather returns, ranging from \$31 to \$37 per acre.

We have become so enthusiastic that we have, together with our own, gotten a bunch of 175 hogs which on April 19 weighed 97 lbs. apiece. During the summer we have lost a few but I think that when the corn is ready we will have some 170 to turn into it. We have been giving them four sacks of ear corn every day, and now we are feeding the green corn rather heavily. We have forty acres of corn in which we sowed rape at the last cultivation. This, together with the corn, will produce a great amount of feed. Whether we will make or lose on the venture, I cannot say; but any way, we feel optimistic.

Ohio.

CLYDE A. WAUGH.

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.

Indigestion—Worms.—I weaned my 4-month-old colt last week, since then he has begun rubbing his tail against the side of the building. I am inclined to believe that he is troubled with worms. S. W., Fennville, Mich.—Mix equal parts ground gentian, ginger, quassia and bicarbonate soda together and give your colt a teaspoonful at a dose night and morning for two or three weeks.

Grub in the Head—Stomach Worms.—My sheep have been dying off, both old and young, without us knowing the cause of their death. Some of them have a discharge from nose; have applied pine tar, thinking it was a grub in the head. My neighbors tell me they are losing both sheep and lambs and they are not able to tell why they should die. F. T. P., Gallien, Mich.—It is possible that some of your old sheep may have grub in the head at this season of the year; however, it is not a very common ailment for nearly all the grubs have been dropped out of the head by this time or have produced death in the sheep. When a sheep dies, cut the head open and you will soon ascertain whether grubs have caused their death or not. I am more inclined to believe that your sheep die the result of nodular disease and give your lambs a teaspoonful of turpentine in a cup of milk or in 2 ozs. of sweet oil and your older sheep will be benefitted by the same dose. Also give your sheep some of the tonic and condition powder recommended for stomach worms in this paper.

Partial Dislocation of Stifle Joint.—I would like to know what ails my 2-year-old filly. At times her hind leg locks as if the joint was stiff; when she gets started she appears to travel all right, but she makes quite a fuss when first steps are taken then suddenly the leg jerks and she travels good. Will it do her harm to work? C. G., Constantine, Mich.—All the trouble is in stifle joint and if you will blister with cerate of cantharides once a week she will soon recover. Moderate work will do her no harm and the hind feet should be kept three inches higher than fore until she gets well; this can be done by filling back part of stall with clay.

Bruised Throat and Neck.—I have been quite successful in treating my horses by following the advice you have given others thru the Veterinary Department of the Michigan Farmer, but now I am puzzled to know what to do for a two-year-old filly. She met with an accident last spring, by putting her head thru a fence and getting fast—after being released her neck and throat swelled considerably. I applied some liniment a few times and that she had recovered; however, some time later I noticed her glands were swollen, then I applied iodine ointment. This treatment reduced the swelling some, but failed to effect a cure. This is a valuable filly and any advice you give will be highly valued by me. W. H. Y., North Star, Mich.—I am inclined to believe if you will give your filly 1 dr. iodide potassium at a dose in feed or water twice a day it will soon make an impression on the bunch you speak of; especially if it is a glandular swelling. However, if it is a fibrous or muscular thickening it may remain swollen for some time. Apply one part red iodide mercury and eight parts lard once or twice a week and this ointment should be well rubbed in. Of course, you understand this medicine will blister slightly, consequently you must use your own good judgment as to how much you use each time.

Scrotal Tumor—Sprained Back.—About the 15th of June I had my 10-month old colt castrated; the operation proved to be successful so far as I could tell for the wounds were healed at end of two weeks; however, I noticed he traveled queer in hind parts and has gradually grown weaker in them. It is most noticeable when he travels uphill and it is also hard work for him to get on his feet. From his actions I imagine there is something wrong with his back, but he has lost no flesh, he eats well and has a normal temperature. I am at a loss to know what to do for him and come to you for advice. H. M. B., Howell, Mich.—Every year I am called into the country to treat cases of this kind and I usually

find the lower end of cord has adhered to skin of scrotum instead of retracting back thru inguinal ring into body. When colts are castrated during the hot weather the cord should be left short and when the wounds are healing if the cord is inclined to hang low and unite with the skin of scrotum the adhesions should be broken loose with the finger and if the cord appears to be hanging too low a portion of it should be removed with either an Ecraseur or an Emasculator. Now when colts are castrated and the caustic clamp used, this condition is very apt to arise on account of the cord being held down and out of body for 24 or 48 hours. This is a very good reason why the old method of castration should be dispensed with and a new method adopted. If you find the cord hitched to scrotum, which I think you will, cut down on tumor, dissect out the diseased parts, pull cord well out of body, cut it off with an Emasculator and your colt will soon get well. Both sides may be affected. If his back is sprained apply equal parts turpentine, aqua ammonia and sweet oil to back every two days and feed him well.

Wormy Goslings.—My goslings have been very thin for some time. On investigation I find the intestines and gizzard full of very fine thread-like worms, and I would like to know what to do for them. Subscriber, Springport, Mich.—each gosling, if they are a month old, 3 drops turpentine in $\frac{1}{2}$ of a teaspoonful sweet oil; also dissolve 3 drs. citrate of iron in each gallon of their drinking water. Your premises, where they run, should be cleaned and if they are running in a lot and have access to a pond you had better bar them out until they are rid of worms; besides the dishes you feed them out of should be thoroughly scalded and left in the air and sunlight between feeding times. Their food should also be well cooked.

Abscess on Shin.—I have a 7-year-old mare that has a bunch on hind shin which has broke open several times. The leg at present seems tender when rubbed. J. M., Fennville, Mich.—Perhaps there is some foreign body in leg which acts as an irritant, causing the leg to inflame from time to time and suppurate. Now the first thing for you to do is to ascertain what is causing the leg to remain sore. If it is now discharging pus follow the opening to bottom and you may perhaps find a small splinter of wood, or perhaps a piece of dirt that will prevent the leg from getting well, but as soon as it is removed a recovery will take place. Apply equal parts spirits camphor, extract witch hazel and alcohol to sore parts twice a day and if you make a wound during your investigation apply one part iodoform and four parts borax acid night and morning, covering the sore with some oakum and light bandage.

Septic Infection.—Last February I had a cow take sick some two weeks before she was due to be fresh; at that time I was trying to dry her and she was only giving about a quart of milk twice a day. She appeared to be weak in hind quarters and lingered for two weeks and died. When opened found a hole leading from each teat to backbone. Her bag was quite decomposed and matter must have been forming several days before she died. Now what I would like to know is, did this cow die of milk fever? I forgot to say that I took a calf away from her as she was too weak to expel it herself. B. W. M., Vicksburg, Mich.—Your cow died the result of septic infection. When pus formed in her udder it should have been allowed to escape; had this been done she would have perhaps got well. No matter what part of body pus forms in, if it is possible to tap and drain the abscess, it should be done, for fear of it being reabsorbed, and poisoning the blood. She showed no symptoms of parturient apoplexy (milk fever) and that is a disease which always comes on at or soon after calving.

Chicago live stock commission firms are cautioning their country patrons to look out for "high spots" in the hog market from now on and to use them for marketing their remaining supplies of hogs that are ready to come. "Take advantage of every upturn," is the advice given in a recent circular letter. On the one side there is the universally recognized hog shortage, and on the other side is the determined resistance to advances in prices made by the packers. This has resulted on some recent occasions in sharp breaks in prices. The market frequently varies a good deal the same day, and advances in a certain favored class of hogs do not always include advances in less attractive grades. Old packing sows are apt to be bad sellers whenever the aggregate hog receipts happen to be of good proportions, and strictly grass-fed hogs are usually salable only at comparatively low figures. Stags no longer top the market, hot weather having stopped the sausage industry.

Milking Machines at the State Fair.

The management of the State Fair to be held at Detroit, has made arrangement with the John W. Ladd Co., of Saginaw, to exhibit at the State Fair, B-L-K Cow Milkers, together with the Burrell Cow Cleaning Machines, in actual operation. Exhibitions of the milking will take place at 9:00, 11:00, 1:00, 3:00 and 5:00 o'clock. The exhibit will be under canvas, located between the cattle and sheep sheds. Cows will be furnished by the association to be milked by these machines. These exhibitions will be extremely interesting to the dairy farmers. The milking machines have, without doubt, come to stay. There are now in the state of Michigan alone, nearly 40 installations, and in the world there are over 6,000 machines in use. The attendants in charge of the exhibitions will be only too glad to answer questions regarding machines, as the exhibit is made simply for educational purposes. Any of our readers who are milking ten or more cows we would advise seeing this exhibition while at the fair.

WE WILL NOT BE AT THE STATE FAIR

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We Can Light Your House With ELECTRICITY

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You can have electric light day and night in your house, barn, cellar, yard, or any place light is required.

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MICHIGAN STORAGE BATTERY CO.,

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BIG BARGAINS. Registered Percheron Stallions 5 years old, sound; 25 registered P. C. boars; 50 registered sows; 75 reg. Shropshire rams; 150 reg. ewes. J. C. BUTLER, Portland, Mich.

WANTED 5 Guernsey Cows (registered) state age, breeding, results, price and when freshen. R. E. ALLEN, Paw Paw, Mich.

BREEDERS' DIRECTORY.

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ABERDEEN-ANGUS.

Herd headed by **UNDULATA BLACKBIRD** 170 83836, one of the best sons of **PRINCE ITO** 50006, and Grand Champion Bull at the Detroit and Grand Rapids Fairs of 1907 and 1908. Herd consists of **Ericas**, **Blackbirds**, **Frides**, etc. **WOODCOTE STOCK FARM**, Ionia, Mich.

BUY Herd and Flock Headers at Kalamazoo, Detroit and Grand Rapids State Fairs, 6 Polled Durham and Angus bulls, 10 South Down and Hampshire Rams, of Clover Blossom Herds, Ft. Austin, Mich.

Holstein-Friesians. **HICKORY GROVE STOCK FARM**, Owen Taft, Proprietor, R. 1, Oak Grove, Liv. Co., Michigan. Bell phone

HOLSTEINS—A few fine bull calves (registered) from 4 to 7 months old at \$50 each. **I. M. SHORMAN**, Fowlerville, Mich.

HOLSTEIN FRIESIANS Herd headed by Royal King. **W. B. JONES**, Oak Grove, Mich.

75 REGISTERED HOLSTEINS,

from which I want to sell at once 25 cows and heifers 2 1/2 year old Bulls and 3 Bull Calves. Special inducements to quick buyers. **L. E. CONNELL**, Fayette, Ohio.

TOP NOTCH HOLSTEINS.

Top Notch registered young Holstein Bulls combining in themselves the blood of cows which now hold and have in the past held World's Records for milk and butter-fat at fair prices.

MCPHERSON FARMS CO., Howell, Mich.

BOARDMAN STOCK FARM, Holstein Cattle.

JACKSON, MICH. Has more imported Holstein-Friesian Cows than any farm in the Middle West. Registered **BULL CALVES** of the most fashionable breeding. 30 fine, registered, Duroc Jersey sows due to farrow soon.

FOR SALE—One three-year-old Jersey bull, 7 grade Jersey cows, 300 lb. butter producers, due to freshen soon; 6 yearling heifers. **J. M. PARK**, R. 5, Coopersville, Mich.

JERSEY Bull calf born Feb. 9, '09, first calf of a heifer whose dam gave 7344 lbs. of milk in '08. Sire's Dam's record 10,080 lbs. in 10 1/2 months. **THE MURRAY-WATERMAN CO.**, Ann Arbor, Mich.



Northern Grown Jerseys.

ROYCROFT FARM, Sidaaw, Mich.

Lillie Farmstead Jerseys.

We have some splendid bull calves for sale from one to six months old. They are from cows with records of 300 to 425 pounds of butter last year. Write for description and prices.

COLON C. LILLIE, Coopersville, Mich.

RED POLLED BULLS, from 6 to 15 months old, sows. **John Berner & Son**, Grand Ledge, Michigan.

MARSTON FARM—JERSEY CATTLE.

T. F. MARSTON, Bay City, Michigan.

CHOICE JERSEYS.

Large St. Lamberts. Young records of either sex for sale.

CLARENCE BRISTOL, R. No. 2, Fenton, Mich.

HEAVY MILKING SHORTHORNS—Can spare

a few females. Good notes good as cash. **J. B. HUMMEL**, Mason, Mich. (Citizens Phone.)

J. B. CROUSE STOCK FARM, No bulls for sale.

Have some choice cows and heifers at right prices.

SHEEP.

OXFORD RAMS & EWES bred by, and ewes bred to, imported prize-winning rams, for sale. Address either **B. F. MILLER**, Flint, Mich., or **Geo. L. Spillane**, Flint, Mich.

OXFORD DOWN RAMS AND EWES.

I. R. WATERBURY, Highland, Mich.

DELAINE RAMS—Large, heavy fleeced Delaine and American Merino Rams. Also 20 good ewes. **S. J. COWAN**, Rockford, Mich.

100 HEAD of good breeding **EWES** from 1 to 4 years old, mostly all black faces, a few are white faces. Price \$5 per head. **J. B. GARDNER**, Box 437, Cadillac, Mich.

REG. RAMBOUILLETS—64 rams, 200 ewes and lambs. Flock founded 1892, with 40 select ewes. All rams used imported or from imp. sires and dams. **J. Q. A. COOK**, Morrice, Mich.

REGISTERED Delaine Merino Rams—Descended from Standard Model and A. T. Gamber's Ring-leader. **C. M. MANN**, Rockford, Michigan.

HEAD YOUR FLOCK WITH

PARSONS OXFORDDOWNS

the popular big, dark faced sheep, with long, heavy wool. My rams are graded according to their form, size, wool, etc. I do not offer a sheep that should not be of satisfactory service to you. Ram lambs, weight 70 to 125 lbs. Grade X \$15; grade XX \$20; grade XXX \$25. Have rams one to five years, weight 150 to 250 lbs. Grade X \$15; XX \$20; XXX \$25. Can also supply you with registered hornless Delaines, Blacktops and Cotswold rams. Don't delay, order now and I will pay the express charges.

ROMEYN C. PARSONS, Michigan's largest breeder of good sheep—over twenty years in the business. Address **Grand Ledge, Michigan**.

LORIMER KIPP, Breeder of registered Delaine sheep. High-class Rams for sale, shipped on approval. **Rockford, Kent Co., Mich.**

Log Cabin Farm has choice registered Rambouillet Sheep of both sex for sale at farmers' prices. Citizens Phone Augusta. **Chas. F. Koster**, Augusta, Mich.

Choice Shropshire Rams for Sale. **A. E. BACON & SON**, Prop's Sheridan, R. 10, Mich.

SHROPSHIRE, all ages, both sexes, extra quality and breeding in lots to suit. Also a few large, robust Rambouillet and Franco rams. Will be priced so as to move them quickly. Correspondence and inspection invited. **C. LEMEN**, Hamburg, Mich.

SHROPSHIRE HALL STOCK FARM.

Will make special prices for thirty days, on ewes from 1 to 3 years old, all bred to Imported Cooper, and Mansell rams to lamb in March and April, also on very choice ewelambs, this is to make room for an importation that is going to arrive this spring. **L. S. DUNHAM & SONS**, Concord, Michigan.

HOGS.

BERKSHIRES

A few bred sows left yet, but no boars. Spring pigs of best families. **Guernsey Cattle**, **Plymouth Rocks**, **Pekin Ducks** and **M. B. Turkeys**. **HUPP FARM**, Birmingham, Mich., **G. C. HUPP**, Mgr.

NORTHERN GROWN BERKSHIRES.

ROYCROFT FARM, Sidaaw, Mich.

A FEW FALL GILTS bred for fall farrowing, also choice lot of spring pigs bred by King Premier. **A. A. PATTULLO**, Deckerville, Mich.

Improved Chesters. Choice pigs of March and April farrow, a few cows and young bulls for sale. **W. O. WILSON**, Okemos, Mich. Both Phones.

IMPROVED CHESTER WHITES. A fine lot of spring pigs, either sex, farrowed in March and April. Price \$10. Satisfaction guaranteed. **Colon C. Lillie**, Coopersville, Mich.

DUROC JERSEY SWINE, Shepherd Dogs, B. P. Rock eggs, \$1 for 15. **J. H. BANGHART**, Lansing, Mich.

DUROC JERSEYS

CAREY U. EDMONDS, Hastings, Mich.

DUROC Jersey of size and quality. 40 Boars ready for service. 60 sows at Farmers Prices. Satisfaction Guaranteed. **J. C. Barney**, Coldwater, Mich.

O. I. C.'s Boars & sows all sold, I have a fine lot of young pigs that will soon be ready to ship. **A. NEWMAN**, Route No. 1, Mariette, Mich.

O. I. C. SWINE. My herd is headed with a grandson of Jackson Chief, the world's Champion and Grand Champion, the greatest O. I. C. boar in the world. He is also grandson of Tutey, the world's Champion sow. Pigs by him at live let live price. **A. J. GORDEN**, R. No. 2, Dorr, Mich.

FOR SALE O. I. Cs. A better lot of spring pigs than ever. Will not exhibit at State Fair this year. Please send your orders, satisfaction guaranteed. **OTTO B. SCHULZE**, Nashville, Mich.

O. I. C's—ALL AGES. Thirty sows bred for spring farrow. Shipped on approval. **H. H. JUMP**, Munith, Mich.

Poland-Chinas—PERFECTION STRAIN. now. **E. D. BISHOP**, Route 38, Lake Odessa, Mich.

POLAND-CHINAS. Long bodied, strong boned, spring pigs, both sex, at low prices. Send for snap-shot photo. **Robert Neve**, Pierson, Mich.

POLAND-CHINA BREEDERS

are invited to inspect my great herd at Michigan State Fair will be there strong with a car load, from the best herd in Michigan. **Wm. Wadde**, Coldwater, Mich.

POLAND-CHINAS—Choice young boars ready for use; bred right. Also young Sows bred; right prices. Write today. **L. W. Barnes & Son**, Byron, (Shlawassee Co.) Mich.

Poland-Chinas. Nothing but spring pigs. Let us have your order now. **WOOD & SONS**, Saline, Mich.

LARGE ENGLISH YORKSHIRES. Boars ready for service \$15.00; Gilts bred for fall farrow \$20.00; spring pigs either sex. Satisfaction guaranteed. **COLON C. LILLIE**, Coopersville, Mich.

THE DAIRY

CONDUCTED BY COLON C. LILLIE.

FALL CARE OF THE DAIRY HERD.

There is no time during the year when dairy cattle require better care and more liberal feeding than during the autumn months, yet very few dairy farmers appear to realize the importance of giving the cows any special care and attention during this critical period. My own experience in feeding and caring for dairy cattle leads me to believe that more than one-half of the complaints regarding dairy cattle coming thru the winter in a poor, thin, emaciated condition is due directly to their being kept out too long in the pasture or fields and then changing them into winter quarters and putting them on a ration of hay, dry forage and fodders.

The cow that is allowed to run outside until cold weather comes and compels her owner to put her in the stable for winter, cannot regain her lost condition and flesh and become accustomed to her change of food and surroundings in any short period of time. Then again, few dairymen practice a liberal system of feeding during the winter, more especially when the cows are dry, and for that reason they cannot recover their condition and go thru the calving period and come out in condition to do efficient dairy work the following season.

The average dairy farmer takes it as a matter of course that cows usually shrink during the fall and fall away in their flesh condition, and therefore he makes no plans to remove the cause of the shrinkage and falling away in condition.

Every thinking dairy farmer knows that

development and this will require that the crop be sowed at various times so that one plot will be at that stage of growth at the time it is needed for feeding purposes. I generally sow one bushel of peas and two bushels of oats mixed, to the acre. With the exception of alfalfa there is no kind of forage superior to oats and peas to keep up the flow of milk and maintain the flesh condition.

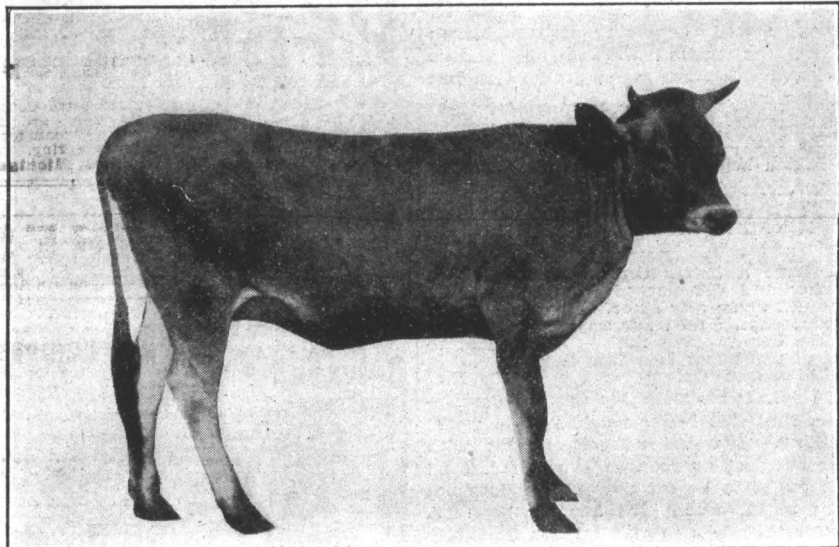
For early fall feeding there is nothing superior to sweet corn. This may be sowed slightly thicker than the common field corn and it will make a good growth of fodder and furnish many ears which will add to its feeding value. Sweet corn makes a very palatable feed and the cows will consume large quantities of it. In many cases enough to make up for the deficiency of the pasture grass.

Another point that many neglect is making the cows comfortable during the fall months. I believe that as soon as freezing nights come they should be put in the stable every night, but I am in favor of allowing them to be out every favorable day, for the extreme cold winter weather which we are sure to have in this latitude compels us to keep them confined in the stable much longer than we realize. The man who allows his cows to go dry early in the fall is cultivating a habit in them that will be hard to overcome, for once a heifer or cow is allowed to go dry after being milked a few months it is very hard to make her continue her period for a longer time after she drops her next. Training as well as breeding influence her future usefulness.

New York. W. MILTON KELLY.

WHAT IS A COW TESTING ASSOCIATION?

Mr. Lewis Palmer, of Media, Pa., writes and asks the above question, what is a cow testing association? Michigan readers



Promising 16-Months' Old Heifer, the Property of A. C. Bennett, of Kent County.

there are certain essentials that cannot be neglected at any season of the year if the cows are kept up in a condition to give milk, and that if any or all of these essentials are neglected there is sure to be a falling away in the production of milk.

Cows that are expected to return a profit must have liberal rations and the kind of foods best adapted to their needs. They must have dry, comfortable and well ventilated sleeping places and be kept free from excitement caused by exposure and neglect. The practice of allowing dairy cows to run over the whole of the farm and be herded by dogs and children and compelled to eat frosty clover and forage cannot be made to return a profit, even tho they may consume waste forage and fodders, when this practice is followed.

To supply good food for the dairy it is necessary that we exercise forethought and plan for the fall season which is sure to come every year. Grass does not grow rapidly after cold weather comes and what does grow contains but little nutriment. The dairy farmer who plans a system of supplemental forage crops to tide him over this period is wise indeed, but wiser still is the farmer who grows enough ensilage so that he can open a silo and begin feeding his cows ensilage as soon as the pastures begin to fail in the fall.

The next best feed after ensilage is oats and peas sowed along about the middle of July and allowed to stand as late as possible and cut and hauled to the stable and fed. To make the best use of oats and peas they should be fed when in the milk stage of the oats de-

are generally familiar with the idea of a cow testing association, especially readers of the Michigan Farmer, but I presume there are many who have not been interested heretofore and may be so now. At any rate, I deem the question of sufficient importance to answer it briefly.

A cow testing association is simply a co-operative business association among dairymen. The dairymen of a community, realizing the importance of testing the individuality of their cows, organize into a business association, and hire a man to go from farm to farm to do this testing. Some one says, "if that's all there is to it, why don't the farmers themselves do the testing?" and echo answers, "why? Yes, why don't the farmers do this testing?" I have tried to solve this problem in my own mind and the conclusion I have come to is that because the farmer has so very many things to do he doesn't have time to do these things and many others that he ought to do. Consequently, his cows are not tested. He goes on from year to year without knowing anything about the individuality of his cows. When he realizes sufficiently the importance of the question, then he is willing to co-operate with his neighbors.

The great object of a cow testing association is to test each cow for economical production. The idea is not to find out how much the cows will produce, to see how much you can make them yield by excessive feeding, or anything of that sort. The idea is to find the net profits from each cow. This is the question that dairymen are interested in. Are there cows in the herd that make no profit at all? Unless we keep, as it were, a

The Passing of the Milk Factories

has been caused by

The Universal Adoption of Cream Gathering

The Vermont Farm Machine Company are the pioneers in the cream gathering system. This cannot be successfully denied.

The farm or dairy sizes of the United States Cream Separators made such headway that the proprietors of milk factories, against their will, had to change. The farmers demanded it.

Not 10 per cent of the whole milk factories of nine years ago are running today, as such. They have either closed up or changed to cream gathering, the more economical plan. Our would-be-competitors, who are always "claiming the earth," cannot deny this fact.

These "would-be-competitors" had been supporting the whole milk scheme and fighting the progressive cream gathering system. When they saw that their efforts were futile—that the change was bound to come—they tried to save what they could out of the wreck.

If you have read their big blustering advertisements containing testimonials from creamerymen, you have noticed that nearly all admit they changed from whole milk and took agency for farm separators of this particular "would-be-competitor," because of the large commission allowed to the creamery on the sale of their Separators. The creamerymen made more money out of them than they did on the cream. Some went so far as to refuse to take cream from any separator which they do not sell and get the commission on.

This worked for a time, but the farmers were too intelligent to be bulldozed in this way. They insisted on having the BEST separator. All these creameries tacitly admit that they had to give up their exclusive agencies and take cream from the United States Separators.

Several events forced them to it. Their pet separator was beaten in the greatest international skimming test ever held, in endurance tests running over thirty days.

The United States Separator also beat this pet separator in the county where its factory is located; and in that county, for ten years the United States has averaged more than three separators to every one of this "would-be-competitor's."

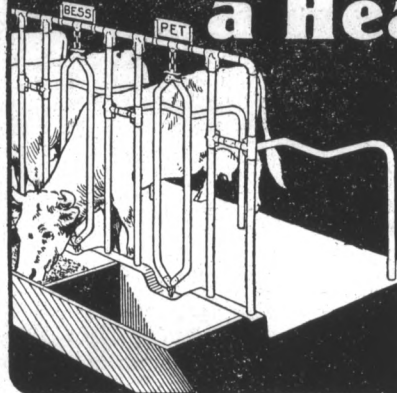
Figuring on the same basis as our "would-be-competitors" figure their profits, it puts seventy-five dollars a year into the farmer's pocket if he uses a United States Separator instead of this "would-be-competitor's" separator.

A United States Separator catalogue, which can be had for the asking, explains all these things fully.

VERMONT FARM MACHINE COMPANY,

Bellows Falls, Vermont.

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.

FARMERS will find a display of the LOUDEN goods at the Michigan State Fair at Detroit, September 2nd to 10th inclusive, and are cordially invited to inspect them.

ROSS

SILO FILLING MACHINERY

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ROSS CUTTERS ARE GUARANTEED.

Write to-day for FREE Catalog.

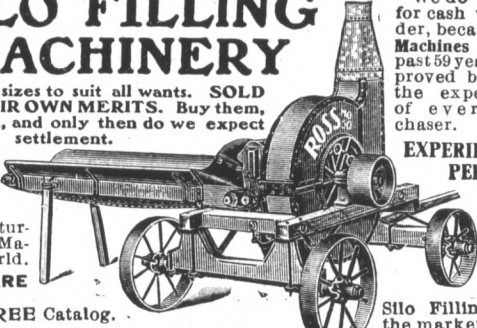
The E. W. ROSS CO., Box 14, Springfield, Ohio.

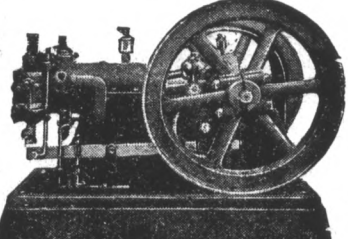
We do not ask for cash with order, because Ross Machines for the past 59 years have proved beyond the expectation of every purchaser.

EXPERIENCE MAKES PERFECT.

Every buyer of a Ross outfit is a satisfied customer.

Our catalogue shows the most complete line of Silo Filling Machinery on the market. Don't forget the **ROSS SILO.**





GET TO KNOW THE "ALAMO"

The Gasoline Engine hat combines **QUALITY, DURABILITY and ECONOMY.** A perfect farm power. It will lessen your work and increase your income. It will pump water, grind feed, churn, run a separator, saw wood, bale hay, shell corn and is adaptable to many other purposes. In Stationary from 3 to 50 H. P., Portables, all sizes. Send for our Picture Book Catalog—Free.

THE ALAMO MFG. CO., HILLSDALE, MICHIGAN.

Remember the name and the trade mark of **UNICORN DAIRY RATION**; it means the best there is in dairy feed—it contains the highest percentage of protein and fat—no filler. Send for Booklet.

CHAPIN & CO., Inc., Milwaukee, Wis.



Mortise Moline Wagon Hubs

C. This automatic machine shown above will mortise ten hubs to a man's one, and yet do it more accurately.

C. When the spokes are driven in they fit so perfectly that they form practically one solid piece. A loose spoke in a Moline hub is an almost unheard of thing.

C. Machine accuracy, human intelligence and expert mechanics combine in the highest order to produce the Light-Running

MOLINE WAGON

C. No hit or miss methods tolerated in the making of the Moline—every part and piece is the result of the accumulated experience of over 54 years devoted exclusively to wagon building. The buyer of a Moline gets the benefit—and there are 30,000 getting such benefit. That is the number we make and sell every 12 months.

C. Write for booklet and we will tell you the name of the nearest dealer.

Moline Wagon Company,
Moline, Illinois

Trinidad Lake Asphalt

is the greatest weather-resister known. It makes roofing last. We use it to make Genasco—and we own the Lake.

If you want your roof insured against leaks, damages, and repairs get

Genasco Ready Roofing

Mineral and smooth surface. Look for the trade-mark. Insist on the roofing with the thirty-two-million-dollar guarantee. Write for samples and the Good Roof Guide Book.

THE BARBER ASPHALT PAVING COMPANY



Largest producers of asphalt and largest manufacturers of ready roofing in the world.

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so you take no risk. Our guarantee and see-what-you-buy-before-paying-Plan specify you pay nothing unless fully satisfied. Lowest prices on all roofing and siding supplies sold straight to you from Factory at real

Factory Prices. Don't buy till you get our prices and **FREE Roofers' Guide**—Write for this Book today. **The United Factories Co., Dept. R22, Cleveland, O.**

Wheels of Steel

Construction—that's the important thing in steel wheels. No spokes to rattle. No repair bills. Empire steel wheels are made to last a lifetime. Listen to one of our customers: "Gentlemen—I send you herewith order for 4 more wheels. The wheels I got from you 10 years ago are all right now. That's QUALITY." It's the Empire idea all right. Ask about Empire Wagons. Shall we send catalog? **EMPIRE MFG. CO., Box 14A, QUINCY, ILLINOIS**

We Always Have oil casks holding from 150 gallons up suitable for cleaning or if cut into two halves for drinking troughs. Write us. **Michigan Soap Works, Detroit, Mich.**

book account for each cow, we do not know whether we have some that are making us no profit, or not, consequently, we are liable to keep cows year after year in the herd that are paying us little or no profit; when by keeping careful records of the cows we will be able to cull out each year the unprofitable ones and, in a short time, raise the standard of our herd so that we would realize a much larger profit at dairying.

Now the cow tester is a young man competent to weigh the milk of each cow, take a sample of it correctly, test this sample accurately for butter-fat, weigh the feed of each cow, figure it up at the market price, and charge each cow with the cost of her feed and give her credit for the butter-fat, or milk, she produces at the market price. This is keeping a personal account with each cow. At the end of each month he figures out the profit made by each cow and leaves a record of these figures with the farmer. He also keeps in a book for that purpose a copy of this record. At the end of the year he gives to the farmer a complete record of what each cow in his herd has done that year, giving the total number of pounds of milk produced, the average test of this milk, the total number of pounds of butter-fat produced, and the market price of this product, whether in butter-fat or in milk. Then he figures out the amount of food consumed by each cow at the market price and charges up to the cow and simply strikes the balance so that the farmer can see at a glance just how much profit each cow has produced.

Now all cows that have made a good profit are retained in the herd. Those that make little or no profit are sold. The result is that the farmer does not keep on raising his herd from these poor cows, but only from the best, and if in addition to this he will purchase his dairy sire of some one of the exclusive dairy breeds, breeding his best cows to this sire and saving the calves from his best cows, it is only a question of a few years when he has made a marked improvement in the profitability of his herd.

The State Dairy and Food Department is fostering and encouraging these cow testing associations. There is no work that will better dairy conditions greater than this. This department furnishes blank books for the cow testers, blank leaves to be filled out and left with the farmer and then, the complete yearly records of each association are published in bulletin form for breeders convenience. These records are interesting reading. They are the only reliable data we have in this country, of any considerable number of cows, giving us an idea of the profitability of dairying.

WHEAT AFTER CORN.

Here are a couple of problems which I would like some aid in solving: We have been using a three year rotation of corn, oats and clover, putting the barnyard manure on the sod for corn. As it is that to be better to have the ground covered during winter, what would you think of putting wheat on at least a part of the corn ground where the corn is taken off to fill the silo? Would you use any fertilizer if you did this? We have better success on our soil, which is a rather heavy sand and gravel loam, to drag in the clover seed in spring. Would the stubble bother much in the spring dragging? I think I read that Mr. Lillie puts wheat on corn ground does he use a disk harrow to fit the ground with? What feed would you mix with rye to finish hogs that weigh 125 to 150 pounds?

Livingston Co. **SUBSCRIBER.** For a dairy farm with a three-year rotation, I know of no better rotation than clover, corn and oats. Peas and oats would be theoretically a better crop to raise than wheat, because the peas and oats would furnish feed for the dairy cow; but, as subscriber says, this leaves the ground bare over winter, which is wrong, and then you are not as sure of a good catch of clover with peas and oats as you are with wheat, and I would prefer, taking everything into consideration, to raise the wheat, sell the wheat and buy the grain ration to mix with the corn silage and the clover hay, rather than to raise peas and oats if I only had a three-year rotation. Subscriber is right. I used to have this rotation and we got along nicely. For five years I had an average crop of wheat of 30.25 bu. per acre and the wheat was put in after the ensilage corn in the fall. Then came a change in seasons. Late years we have not been able to get our ensilage corn taken care of early enough so that we can get the wheat in on time so we haven't been raising as good crops late years. Then I wanted to raise sugar beets. This interfered with my

former rotation and extended it to four and, in some instances, to five years. Then again, I have a larger farm and can't put one-third of it into corn every year, and if I did I could not get it all into the silo. These things have influenced me to change my rotation. I have discontinued raising wheat after corn, but I am not raising as good wheat as I did. I am now sowing it after oats and oats and peas in a four-year rotation. If you can get the corn off by the 1st of September so that there is time to fit the ground, I do not think there is any better rotation than the one you mention. I believe in fertilizer and always use fertilizer on wheat. About 200 pounds of fertilizer per acre gives the wheat plant a good start and helps it to get a good hold.

We kept the corn ground cultivated until late in the summer—in fact, cultivated it well up to the time when we cut the corn for the silo. We did this because it helped to prepare the ground for the wheat. When the corn was removed we piked up the stalks and ears that were left and hauled them off, and then fitted the ground by simply cultivating it the same as if it had been into corn. We did not disturb the corn stubble at all. Then when we drilled in the wheat the drill would straddle the rows of stubble without any difficulty. When the stubble stands all winter, they get in such a condition that the roller will smash them down and level up the corn ground so that you have a fairly even surface for the meadow which follows. It is a little rougher meadow than one likes to have but you can get along very nicely with it. If you sow the clover seed late in the spring so that you can harrow it, this harrowing would also help to level up the corn stubble, and, after they were rolled down with roller, I do not think they would clog the drag or interfere in covering the clover seed. I, however, always sowed the clover seed in March before the ground thawed out in the spring and always got a good catch but my land is heavy and it is easy to get a good stand.

The best feed to feed with ground rye to fatten hogs is corn. There is nothing better.

HEIFER FAILS TO GIVE MILK.

I have a heifer that came fresh last spring and did not give any milk, and has not given any since. I have bred her again. Can I feed her anything that will cause her to give milk? She seems to be all right and is a fair one.

Kalamazoo Co. **R. B.** It looks to me from this meagre description, that this heifer would not be worth milking. I would not experiment with her but just as soon as she is fat, (and she ought to be fat now if she does not give milk), would sell her for beef. A heifer that fails to give milk is no better than a steer. You better get rid of her. It is barely possible that this heifer the next time she freshens would give milk, and perhaps a fair amount of it, but it is a question whether she would ever be a profitable cow. I would not go to the expense of keeping her again for nine months to give her another chance. You might better sell her for beef and buy another heifer. Occasionally such an animal appears to make the study of live stock more uncertain but more interesting. I have known heifers coming in in the back pasture where the calf died from some cause or another, and there was no one to milk her, causing the heifer to dry up. After once dried up, she could not be brot to her milk again. Such heifers, when bred again and kept until they come fresh, are all right. But as I understand it, this heifer, without any apparent cause, gave no milk. Under such circumstances, I would say that she is not the kind of heifer one would keep for a cow.

AUGUST EDUCATIONAL SCORING CONTEST.

The August educational scoring test will be held on the State Fair Grounds, Detroit, on Friday, Sept. 3. This is held at that time to enable all to enter their butter or cheese for premiums at the fair. The butter or cheese should be forwarded not later than Monday, Aug. 30. It should be shipped direct to the fair grounds, and be there a few days to cool properly for scoring.

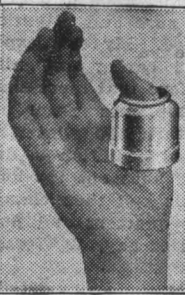
Have You Roof Troubles?

The "Roof-Fix Man" of Elyria, Ohio, is publishing a new book on various kinds of roofing and on roof troubles. This book will be sent absolutely free to any of our subscribers who write for it. It will pay you to write and get a copy. We will send you some of these books if you mention the Michigan Farmer.

40 Legs

Imagine a man with 40 legs, 40 feet to wash, 40 shoes to repair, and yet unable to travel as fast or as far as a two-legged man. Wouldn't have much excuse for those bothersome, extra 38 legs, would he?

Same way, exactly, with cream separators. Common disk, or "bucket bowl" machines are full of parts. Some have 40 to 60 disks inside.



Yet they can't skim as fast or as clean, can't run as lightly, can't be washed as quickly, can't wear as long as the simple, sanitary Sharples Dairy Tubular that has nothing inside but the single little piece on the thumb. No excuse for disks. Get a Tubular with the can that never moves. World's biggest separator factory. Branch factories in Canada and Germany. Sales exceed most, if not all, others combined. Write for catalog No. 152.

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\$33⁵⁰ Only Galloway

"BATH IN OIL"
High Grade Separator—Direct
Save \$25 to \$50 direct at my factory price—freight prepaid. Get the only Separator that runs in "Bath of Oil." Like a \$5,000 automobile. This alone is worth \$50 extra, but costs you nothing extra. **90 Days'**
Farm Test—Freight Prepaid
Why pay \$85 to \$110 to dealers or agents who cannot sell you a separator equal to the Galloway—closest skimmer—easiest run—easiest cleaned—10-yr. guarantee. Send for **BOOK FREE** **WM. GALLOWAY CO.**
643 Galloway St., Waterloo, Ia.

Farmer Agents Wanted

You can earn your own Cream Separator by giving a little time and effort to telling your friends and neighbors about the most wonderful invention in Cream Separator History—

THE CHICAGO SPECIAL

Its low Supply Can, easy cleaning, easy turning, few parts, dust and oil proof frame, enclosed gearing, high quality construction, and long life are fitting accompaniments of this wonderful new patented Skimming Device.

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All You Need to Know About Silos, Sent Free

Our new book on Silos and Ensilage gives facts that will save you time, worry, and expense. Will start you right on the Silo question. This book tells how to get more milk and more meat from your cattle. How to cut feed bills in half. Also tells about the

SAGINAW SILO

Makes farmers rich. All steel frame; continuous interchangeable door; handy ladder; absolutely air tight. The Saginaw is best and most practical. The Saginaw will more than pay for itself in one season. All suitable woods. Write a postal today for this grand free book.

Farmer Handy Wagon Co.
Box 64
Saginaw, Mich.
Des Moines, Minn.

WHEN writing to advertisers just say "Saw your ad. in the Michigan Farmer."

POULTRY AND BEES

THE VENTILATION PROBLEM.

How to properly ventilate a poultry house is a problem everyone keeping hens must solve. Too much or too little ventilation is injurious to the health of the flock. Hens, like human beings, take cold easily in too close or too open houses. A happy medium must be found.

If the house is practically air tight the windows should be raised an inch or two, according to the temperature, to admit fresh air. There should be an opening near the top of the front side, or if the house has a double roof, at the peak of the roof, where the bad air can pass off. This aperture should have a door or slide which may be left part way or wide open according to the weather. An opening at least eight inches square for every 200 square feet of house room or floor space is sufficient.

On every warm sunny day during the cold months, the windows should be raised after the sun is a few hours high, and lowered at least an hour before sunset so as to give the pen a chance to warm up before the hens go to roost. The door or doors may be opened instead of the windows if screens are put in to keep the hens from getting out into the snow.

During the night two windows may be raised an inch and the slide opened about half way. One must use his judgment in regulating the ventilation. A thermometer hung in the poultry house is of material assistance in determining whether to admit more or less air.

In a house whose front side is made of boards with cracks between them, one need not worry about ventilation, for it will take care of itself. A half century ago most farmers' henhouses were simply well battened on the north and west sides. Colds and roup rarely ever attack fowls kept in such buildings.

The ventilation problem is also solved in open-front or curtain-front houses. Such houses have roosting apartments in the rear of the pen, protected by a board or curtain partition which allows a supply of fresh air to reach the hens from underneath and the foul air to escape overhead. This partition keeps out the wind and drafts and prevents the warm air from escaping too rapidly. Hens in such apartments have plenty of fresh air and are perfectly comfortable.

Colony houses should be built to admit the largest amount of fresh air possible without drafts. Houses with the two sides and back covered with paper, and having an open front covered with half-inch wire netting to keep out night intruders, serve their purpose admirably and are properly ventilated.

Chicken coops should receive as much attention as other poultry quarters in the matter of ventilation. Never close a coop tightly but, day and night, allow fresh air free access.

Study well the problem of ventilation, for upon it may hang the story of success or failure of one's poultry venture. The admittance of plenty of fresh air and the dismissal of the foul air, without drafts, to one's flocks, whatever may be their quarters, is the correct solution of the problem.

Maine. A. G. SYMONDS.

HANDLING UNFINISHED SECTIONS.

A Problem of Importance in Seasons Such As the Present One.

During good and prolonged nectar flows the apiarist generally will not be caught with a lot of partly filled sections. Certainly not if he manages rightly. It is during poor years that there is trouble here. Such was the case two years ago. For a short time the bees worked fairly well, then the flowers went on a strike and whole superfuls of sections were left in such an unfinished condition as to be unmarketable.

What to do with so many filled but poorly sealed sections is quite a problem. If they are half or more sealed over, the combs can be cut out and sold as "chunk" honey, providing one has a market for honey in this form. The combs may be packed in special large screw-top cans, or maybe some will like gallon stone jars all right. Extracted honey is to be poured over to fill the empty spaces.

Honey put up this way will have to be sold direct to consumers. The price must be less than for section honey. If

section honey sells for fourteen or fifteen cents per pound, ten to twelve cents per pound is about right for this. This is about as profitable as section honey for, you see, the extracted goes at this price, too.

As already said, the season preceding the last one was poor. I had a good many sections well filled with honey but not sealed, or not many cells sealed. When sections have but little honey in them I let the bees empty them, as will be described later. But feeding such full sections I thot rather wasteful, as the bees would get enough for winter from fall flowers. So I extracted them.

I made some section-holding frames, four such frames being necessary for a four-frame extractor—one for each pocket. The frames as I made them hold but two sections each; were I to make new ones they would be made deep enough to hold four sections each. That would shorten the work of extracting, sixteen sections being emptied at one turn.

If some of the sections are partly capped, the cappings, of course, must be cut off. If the combs are fastened to all sides of the sections they will not break out, but if loose from the sides and bottom the spin in the extractor will break them. Therefore, if you want to save such combs, don't run them thru the extractor but feed to the bees.

I have spoken especially of poor seasons, but during good seasons as well a few sections will be left unfinished at the cessation of the white nectar flow. At this time all sections should be taken off the hives because the fall honey is amber, or dark, in color and sections of vari-colored honey do not sell well.

There will also be some sections having but a few cells filled, therefore having but a few ounces of honey. Such I do not consider worth the time required to run them thru the extractor. If fall honey is to be stored in them they can be used without emptying, for the little light honey will not show thru the darker colored fall product. If they are to be carried over to the next season they must be emptied. This I let the bees do.

Such sections are put into supers and the latter "stacked" upon an ordinary bottom-board several rods from the apiary. Cover the top of the stack bee tight, and contract the entrance so only a few bees can pass at a time. The bees will soon find the honey and carry it home. If the bees are given a large entrance to the supers it will excite them, inducing robbing, and in their eagerness the bees also tear up the combs.

If the combs are free from pollen they are quite safe from wax moths. Cells of pollen must be cut out. If there is much pollen I cut out the whole comb.

If the fall flow is good the sections filled with comb can be put, or left, in supers and put on the hives at the proper time. With comb ready for filling, quite a fall surplus may be secured.

Those sections from which honey was extracted must be cleaned by the bees in the same manner as the partly filled ones, that is, if they are to be carried over to the next season; if to be used for fall honey I don't bother about it.

Wisconsin. F. A. STROHSCHNEIDER.

Commends Buckwheat as Honey Crop.—The veteran bee authority, Mr. A. I. Root, reproduces, in his interesting column in "Gleanings," the article, "Growing Buckwheat for Honey," which appeared in The Farmer some weeks ago. In his endorsement of the plan described he says: If I understand the writer of the article, he has struck on a plan by which the bee-keeper can get two valuable crops for honey; and not only that, he can keep on growing buckwheat continuously year after year—at least for a time. We have been in the habit for years of sowing rye after digging the potatoes, or taking off some other crop, and turning the rye under the following spring just before it begins to head out; but it never occurred to me before that I could get two honey crops by sowing turnip and rape seed with the rye. I know they will both winter over in our locality, and furnish valuable blossoms for the bees, because I have done so repeatedly, but never in connection with rye. * * * I hope a number of our bee-keepers will test this idea, and report. If the frost holds off in the fall, good crops of buckwheat can be secured, even if sown as late as August 1 or later; and if the frost should ruin your chance of getting seed, the valuable blossoms for honey, and the buckwheat to turn under for succeeding crops, will be worth all it costs.

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Its superior whiteness proves its perfection. All impurities and discolorations are removed. This whiteness also indicates fineness of grain, which means beauty and smoothness of finish, great spreading qualities and extreme durability. Whiteness alone assures strong, true, brilliant and durable colors—this is important.

By the pound Carter costs a trifle more than ordinary leads—measured by square yards of surface covered, by years of wear, Carter is the cheapest paint you can buy.

All reliable dealers sell it. Good painters use it.

Before deciding on ANY paint, be sure to write for our valuable Free Book, which tells how to test any paint for purity—how to choose a harmonious color scheme and gives many other helpful suggestions. We'll send with the book a set of colored plates showing how real buildings look when painted with Carter—just what you have long wanted.

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To be Sure It's Pure, Look for "CARTER" on the Keg



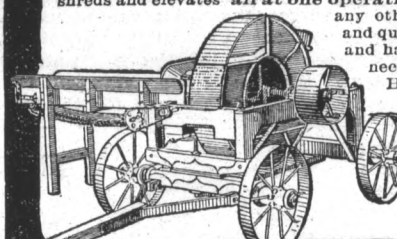
FILLS THE SILO FAST

Dear Sirs:—During the year 1907 we purchased one of your size "G" ensilage Cutters with Blower attachment and found the same to be eminently satisfactory. The machine is capable of doing all you claim for it and upon actual test we were able to put into a silo 36 ft. high corn ensilage at the rate of 25 tons per hour, using a 12 h. p. engine. It was easy to cut at the rate of 15 to 20 tons per hour during the whole day's time. This season we had three 150-ton cement silos to fill and were under the necessity of getting a cutter which would do the work rapidly in order to get them filled in time. We are well pleased with the machine.

Yours truly, WEEKS BROS.

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ESTABLISHED 1843.

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 TELEPHONE MAIN 4525.

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 CHICAGO OFFICE—1736 First Nat'l Bank Building.
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TERMS OF SUBSCRIPTION:

Three Years 156 Copies Postpaid \$1.50
Two Years 104 Copies, postpaid, \$1.20
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 Detroit, Mich.

DETROIT, AUGUST 28, 1909.

CALL AT THE MICHIGAN FARMER TENT.

As usual, we will have a tent at the State Fair for the convenience of our subscribers, each and all of whom are invited to make it their headquarters while at the fair. It will be located between the entrances of the first and second cattle barns, and will offer a convenient meeting place, will be a good place in which to rest and will afford a desirable degree of seclusion for the noon-day lunch. A representative will be in charge at all times and every Farmer reader will be made welcome.

READER! PLEASE.

We recognize that there are still several thousand farmers in Michigan who are not readers of the Michigan Farmer. It is to get in touch with those and to get them to read our paper a few months that we are making the special trial offer which will be found on another page. We want them to know what the Michigan Farmer is and its value to them. Experience has taught us that if we can get good farmers interested in the Michigan Farmer they will become regular subscribers. If they will read it a few months we feel confident they will become interested in it.

For that reason we have decided to make a very low price to secure the orders and in addition we offer a choice selection of premiums to our friends as a reward in helping to get them.

Now, reader, this is not a small matter to either you or ourselves. The premiums are all good, practical articles of known value. There is nothing cheap or shoddy about them. We guarantee each one in every way; you may start in knowing the article will be as represented. We send no back numbers of the paper, but start it the week the order is received. So the sooner you can get to work, the more value to the subscriber. If any prefer cash in place of a premium, we will arrange to pay them in that way.

Any boy, girl or parent can attend to this without hesitancy because the work is honorable, easy and effective. We trust our friends will take hold of this matter, and see to it that every person not now a reader will give the Michigan Farmer a trial during the next few months. The price, 10 cents, to January, is almost nothing and is charged merely

to start an interest. Any reader may have as many premiums as he can get subscribers for. Samples for soliciting or for distribution will be sent free. There will be found in this paper a subscription blank. One is all we are allowed to put in, but we can send you as many more as you want or you can use plain paper. Write us.

SAMPLE COPIES FREE.

We are sending a copy of this week's issue to several thousand farmers who are not now taking the Michigan Farmer. Our object is to introduce the paper to them with the hope they will read it and take advantage of our trial offer of 10 cents to January 1. The Michigan Farmer is a weekly of from 20 to 40 pages each issue. We ask that you also read the article under the head of "Reader Please," and send us not only your own order but raise a club among your friends. Remember, the paper will not be continued beyond the time paid for unless renewed.

CURRENT COMMENT.

Now that the State Fair Our Second at Detroit is in progress Big Fair and plans have been made to attend it during the coming week, the reader should not consider that he has discharged his full duty toward himself and the industry which he represents so far as attending agricultural fairs is concerned.

On the week following the State Fair at Detroit, the West Michigan State Fair will be held at Grand Rapids. The designation of this agricultural show as a second state fair has been earned by the progressiveness of its management, the large number and high class of its exhibits and the wide distribution of its patrons.

Many of the same faces will be seen at the State and West Michigan Fairs, since those who came from a distance to the first, feel it to be also to their advantage to attend the last named of these two big Michigan fairs, while their geographical location gives the people of the whole state an opportunity to attend a high class agricultural fair which would not otherwise be enjoyed.

So great has been the success of this fair in recent years that the managers found it necessary to enlarge the grounds, which was done by the purchase of additional land last year which will this year be opened up for use for the first time.

It is unnecessary to say anything further regarding the character of the exhibits which may be seen at this fair for the benefit of those who have ever attended it, and those who have not should attend and see for themselves.

Lovers of light harness racing will be pleased to learn that the track on the West Michigan fair grounds is one of the very fastest in the country and that at the recent race meeting a world's record which has stood since 1892 was broken by a team of pacers, driven to pole, in the remarkable time of 2:02 3/4.

As in recent years other entertaining features will be liberally provided so that from both an educational and an entertainment standpoint, the West Michigan State Fair will prove an event which should not be missed by any who are so situated that they can possibly attend it.

The wheat market during recent weeks may best be described as a waiting market, with the big mills

and elevators absorbing all that is offered at around the dollar mark, but with comparatively little grain moving for this season of the year. In market circles this waiting tendency is admitted to be due to an uncertainty as to how freely the western spring wheat crop will be marketed at the figure now prevailing for the cereal, and there is an air of uncertainty about the market which clearly indicates that even the big operators have no very clear idea as to even immediate future market conditions.

With an unusually good crop of winter wheat in Michigan this year, this situation becomes one of more than ordinary interest to the Michigan wheat grower, hence an attempt to analyze the situation at this time will be a profitable occupation for the reader who grows wheat for market. With the available supply of wheat almost at the vanishing point thruout the world at the commencement of the present harvest, it is at once evident that supplies for the year must be provided by the current year's crop. As the first step toward determining the

probable total of that crop, let us review the estimates for this country. The August reports indicated that the yield of winter wheat for the country would be about 1.1 bushels per acre larger than last year, but that the aggregate yield for the country would be lower than last year owing to a smaller acreage, the preliminary estimates showing that the probable total yield of winter wheat for this year would be 432,920,000 bushels, compared with a total yield of 437,908,000 bushels last year. The condition of spring wheat on August 1 was 91.6, compared with 80.7 on August 1, 1908. If these figures be taken to represent the percentage of increased total yield of spring wheat at harvest an increased production of something over 26 million bushels of spring wheat would be indicated, making an aggregate increase in the country's crop of between 22 and 23 million bushels over last year. This is not at all startling when we remember that our last year's production totaled 660 million bushels in round numbers. Probably the increase would not do more than provide flour for our increased population, leaving no more than a normal surplus for export. Of course, these figures are relative, and may not be accepted as an accurate indication of the country's actual wheat yield, but they are the best obtainable at the present time and must be accepted as a guide to probable market conditions until they may be supplemented by later estimates.

The latest advices with regard to foreign conditions indicate that the lateness of harvest in the importing countries will cause a further drain on already exceptionally low stocks, and altho the European harvest will undoubtedly be larger than those of the past two years, when there was a serious shortage, it is unlikely to come up to that of 1906 or even that of 1905. In Austria unfavorable weather at harvest time has seriously affected the yield of marketable grain, while in Russia the wheat crop is estimated at 17 per cent below that of last year. While it is still too early to judge of the outlook in India, Australia and the Argentine, where the current year's crop is yet unown, yet seeding conditions are said to be auspicious in the two countries first named, while a serious drouth, as yet unbroken, seems certain to greatly limit the area sown to wheat in Argentina.

Thus conditions thruout the world would seem to indicate only a normal crop, which means that all the wheat will be wanted for consumption during the year at good prices. With this fact in view, it would seem the part of wisdom on the part of growers in this country to market their crop slowly, holding for a fair price whenever the market drops below a reasonable figure. All of the wheat will undoubtedly be needed and taken at at least a dollar a bushel from the growers, and those who sell for less than this figure will probably be adding to the profit of the mills and elevators in which it is held for consumption. That speculative dealers believe in a higher market is indicated by the fact that futures are selling about even with cash wheat. With the grain in his bin we believe the grower can safely show a like confidence.

Since the passage of the new tariff bill and the publication of comments on same in this department, we have received an inquiry from a reader asking for an explanation of the maximum tariff provision contained in section two of the tariff law.

This reader, from reference to this provision which he had seen in other publications, evidently thought that the maximum tariff provision of 25 per cent ad valorem in addition to the duty levied under the regular schedules of the tariff bill would apply or might apply to any or all of the commodities imported. The provision of a maximum tariff, however, was incorporated in the bill solely for the purpose of protecting our trade with foreign countries and to provide a means of retaliation in cases where foreign countries discriminated against the importation of our products.

As a means of explaining this provision to the satisfaction of the reader and of providing general information upon this feature of the new law, we will give the text of section two of the tariff bill which is as follows:

Sec. 2. That from and after the thirty-first day of March, nineteen hundred and ten, except as otherwise specially provided for in this section, there shall be levied collected, and paid on all articles when imported from any foreign country into the United States, or into any of its possessions (except the Philippine Islands

and the islands of Guam and Tutuila), the rates of duty prescribed by the schedules and paragraphs of the dutiable list of section one of this Act, and in addition thereto twenty-five per centum ad valorem, which rates shall constitute the maximum tariff of the United States: Provided, That whenever after the 31st day of March, 1910, and so long thereafter as the President shall be satisfied, in view of the character of the concessions granted by the minimum tariff of the United States, that the government of any foreign country imposes no terms or restrictions, either in the way of tariff rates or provisions, trade or other regulations, charges, exactions, or in any other manner, directly or indirectly, upon the importation into or the sale in such foreign country of any agricultural, manufactured, or other product of the United States, which unduly discriminate against the United States or the products thereof, and that such foreign country pays no export bounty or imposes no export duty or prohibition upon the exportation of any article to the United States which unduly discriminates against the United States or the products thereof, and that such foreign country accords to the agricultural, manufactured, or other products of the United States treatment which is reciprocal and equivalent thereupon, and thereafter, upon proclamation to this effect by the President of the United States, all articles when imported into the United States, or any of its possessions (except the Philippine Islands and the islands of Guam and Tutuila), from such foreign country shall, except as otherwise herein provided, be admitted under the terms of the minimum tariff of the United States as prescribed by section one of this Act. The proclamation issued by the President under the authority hereby conferred and the application of the minimum tariff thereupon may, in accordance with the facts as found by the President, extend to the whole of any foreign country, or may be confined to or exclude from its effect any dependency, colony, or other political subdivision having authority to adopt and enforce tariff legislation, or to impose restrictions or regulations, or to grant concessions upon the exportation or importation of articles which are, or may be, imported into the United States. Whenever the President shall be satisfied that the conditions which led to the issuance of the proclamation hereinbefore authorized no longer exist, he shall issue a proclamation to this effect, and ninety days thereafter the provisions of the maximum tariff shall be applied to the importation of articles from such country. Whenever the provisions of the maximum tariff of the United States shall be applicable to articles imported from any foreign country they shall be applicable to the products of such country, whether imported directly from the country of production or otherwise. To secure information to assist the President in the discharge of the duties imposed upon him by this section, and the officers of the Government in the administration of the customs laws, the President is hereby authorized to employ such persons as may be required.

HAPPENINGS OF THE WEEK.

Foreign.

Spanish troops in Melilla, Morocco, are still on the defensive. The forces are too weak to begin an active campaign. At least 50,000 more men will be needed to hold present occupied positions and make advances.

The first shipment of the unique trophies from Col. Roosevelt, who is still in Eastern Africa bagging game, is now in Washington and will be unpacked in a few days and prepared for exhibition in the new \$2,500,000 museum just erected by the government.

August 22 was the first day of the airship races at Rheims, France, and it is a compliment to American inventors that in two races the first, second and third positions were all taken by men flying machines after the pattern of those constructed by the Wright Brothers, of Ohio. The meet will continue thruout the week.

American financiers have won a victory over the financial interests of Europe in securing from China permission to participate in supplying the loan for the construction of Hankow-Szechuen railroad. Not only this but a greater portion of the material for the roads will be taken from this country.

A heavy earthquake shock was felt at Lisbon, Portugal, on the 17th inst., and on the following Sunday a tidal wave did much damage to the shipping interests at Barcelona, Spain. Another series of shocks was also experienced about the same time as the disturbance at Lisbon, at Acapulco, Mexico, where the shore line raised some 30 feet.

President Gomez, of Venezuela, has appointed a new cabinet and council as provided by the new constitution of that country.

In her attempt to gain a coast line, Bolivia is likely to have war with Peru as the awards of the arbitrator of the boundary line between the countries by the Argentine Republic have not as yet been accepted by the former country, and Peru has sent an ultimatum which will either bring immediate peace or put troops in the field. It is believed that Chili will aid Bolivia in her struggle.

Official announcement of all pending questions between China and Japan have been adjusted and of this the nations will be informed in a few days by the governments.

The reorganization of the custom department is providing for a closer surveillance of the passengers and vessels as they land here from foreign ports.

National.

A river steamer burned on the Illinois river Friday, and a loss of \$15,000 was sustained by the owners. Forty persons were aboard when the fire started.

Forty-nine service and national guard rifle teams are at Camp Perry, Ohio, attending the annual rifle contest.

The extending of the powers authorized

by the charter of the central leather company, of New Jersey, was for the purpose of acquiring interests in other leather concerns, and particularly to bring about a consolidation between it and the United States company. The capitalization of the former company is now \$80,000,000.

Captain Carter, who was sentenced to prison for fraud said to have been worked in connection with the building of harbors at Savannah, Ga., will be aided by ex-Senator Foraker, of Ohio, in an attempt to gain his freedom.

President Taft has announced that he will meet president Diaz of Mexico during his western trip this fall, and has also stated that he will go into Mexico to greet his contemporary, which will be the first instance of a president of the United States setting foot on foreign soil during his term of office.

Forest fires are raging near Spokane, Wash., and it is estimated that fully a million dollars worth of timber has already been destroyed.

The government is to push with all possible dispatch the case against the Harriman merger of the Union Pacific and the Southern railroads.

It is estimated that during the past two years the fight against the liquor traffic has decreased the sale of liquor of all kinds to consumers by \$464,449,997.12.

The national postmasters' convention in session at Toledo this past week supported Taft's appeal for strict economy in the conduct of the post office business. A similar request has been made by the president of each department of his cabinet.

The trans-Mississippi commercial congress in session at Denver, passed a resolution asking congress to enact a law dividing the agricultural, mineral and forest reserves.

That hogs inoculated with a serum discovered by a government employee, are immune from attacks of cholera has been demonstrated to the satisfaction of the government inspectors who have been making tests of the remedy at Kansas City.

A movement among cotton manufacturers has been started for the restoration of the wages paid operators before the cut in 1908.

Fire believed to have been of incendiary origin destroyed 30 houses in a Portsmouth suburb district Friday.

The Mauretania steamship again is queen of the Atlantic, having established a new record in making the trip across that body of water to New York in 4 days, 14 hours and 38 minutes.

The census bureau reports that two-fifths of the population of the United States are church members, which is a substantial increase during the past 16 years.

It is now generally known that the Japanese government will return Ambassador Takahira to this country after he has served to draft treaties between his home government and the United States.

The United States is said to have lost \$10,000,000 thru the concessions made Cuba on sugar importations.

Telephone companies are having trouble since the new Lincoln pennies came out, the coins being heavier than the old pennies and about the weight of a nickel, are readily used at telephone pay stations instead of the more valuable coin.

A party of sightseers are believed to have been lost on the crater of Mount Tacoma, Washington. They attempted to ascend the mountain without a guide.

The new seismograph just installed at Ann Arbor, Mich., recorded a severe earthquake disturbance on Monday. The trouble was that to be around Central America or in the Pacific ocean.

The steamship Waratah, which foundered somewhere off the shore of Cape of Good Hope several days ago, is now given up as a complete loss, and it is believed that nearly all of the 300 passengers aboard when the accident occurred, are drowned.

A storage battery, believed by experts to be of great importance in electrical engineering, has been invented by a Swedish inventor.

Under the law of Persia, the eleven-year old Shah is compelled to marry and preparations are now being made for the event tho the Shah protests against the union.

Two-thirds of the native population of Uganda, Africa, is said to have been wiped out the past seven years by sleeping sickness.

Grain receipts in June at 15 leading interior markets aggregated 43,423,955 bushels, compared with 45,644,917 and 64,650,970 bushels reported for June, 1908 and 1907. Of the total receipts 6,551,372 bushels was wheat; 18,926,628 bushels corn; 13,583,494 bushels oats; 4,035,551 bushels barley; and 326,910 bushels rye. The most marked decline is seen in the monthly receipts of wheat, which were about one-third below the June, 1908, receipts, and less than one-half the June, 1907, receipts. The receipts for the month, of oats, barley, and rye, were somewhat larger than during June, 1908. Grain receipts at the same markets for the crop season, beginning with September 1, to the end of the month totaled 630,680,686 bushels, compared with 639,449,090 and 718,408,117 bushels for the 1907-8 and 1906-7 seasons. The largest losses as compared with the 1907-8 receipts occurred under the head of corn and oats. The wheat receipts during the current season, 208,622,397 bushels, were about 26 million bushels in excess of like receipts during the 1907-8 season. The flour shipments during June from 13 important milling points, 3,030,368 barrels, compare favorably with the analogous figures for June, 1908, 2,831,326 barrels, the falling short of the June, 1907, figures of 3,192,470 barrels. The six months' flour shipments from the same points 18,061,460 barrels, exceeded like shipments for the same period during the two previous years.

GENERAL REVIEW OF CROP CONDITIONS.

According to estimates made by the Bureau of Statistics, Department of Agriculture, crop conditions in the United States on August 1, 1909, were, in the aggregate, slightly higher than on August 1, 1908, and moderately higher than a ten-year average condition of all crops on August 1. In addition to the higher condition, the acreage of cultivated crops is about 1.6 per cent greater than last year. Of the important crops, winter wheat, spring wheat, corn, oats, rye, flax, and grapes were better than last year and the ten-year average; barley and potatoes were better than the condition on August 1 last year but slightly below the average condition. Tobacco and sweet potatoes were better than the average and lower than last year. Important crops which were below both last year and an average condition are cotton, rice, hay, buckwheat, and apples. Conditions vary, however, in different sections of the United States.

In the North Atlantic States, including New York and Pennsylvania, general conditions on August 1 were about 6.7 per cent lower than a year ago and 7.5 per cent below the ten-year average on August 1. Nearly all crops were reduced below the condition prevailing a year ago and the average condition; hay, by far the most important crop in this section, having a condition of only 76.7 per cent, against 85.7 last year and 87, the ten-year average.

In the North Central States east of the Mississippi river, comprising Ohio, Indiana, Illinois, Michigan and Wisconsin, general conditions are about 9.4 per cent above a year ago, and 6.6 per cent better than the average. Corn, the most important crop in this section, averages 90.4, against 78.8 last year and 84.3, the ten-year average condition on August 1; wheat, oats, potatoes, and tobacco are above last year and the ten-year average; barley, hay, and apples are below.

In the North Central States west of the Mississippi river crop conditions are about 9.1 per cent better than last year and 8.7

per cent above the ten-year average on August 1. All important crops are above last year's and the ten-year average on August 1. Apples are above last year but below the average.

In the South Atlantic States crop conditions are not so favorable, being about 8 per cent below a year ago and 3.8 per cent below the average on August 1. All important crops show a more or less material reduction in condition, compared both with last year and the ten-year average, except rice and sweet potatoes, which are slightly better; white potatoes are the same as last year.

In the South Central States, also, conditions are unfavorable, being about 13 per cent lower than on August 1 last year and 10 per cent below the ten-year average on August 1. All important crops, except tobacco, are below a year ago and the ten-year average condition on August 1; cotton being 70.0, against 82.0 a year ago and 80.9, the ten-year average.

In the far western states crop conditions are materially (about 8 per cent) above a year ago, and moderately (4.8 per cent) above the ten-year average on August 1. Most important crops are better than a year ago; barley and hay are slightly below the average, but better than last year; peaches, below last year but above the average; apples, below last year and the average.

Summarized, the relative condition of crops, in the aggregate, in the different sections of the United States on dates indicated was as follows:

Sections.	1909.	1908.	Av.
No. Atlantic Div.	79.7	85.4	86.1
No. Cen., E. of Miss. R. .	88.5	80.9	83.0
No. Cen., W. of Miss. R. .	88.8	81.4	81.7
South Atlantic	81.1	87.1	83.2
South Central	72.2	83.0	80.5
Far West	91.4	84.7	88.8
United States	83.4	83.1	82.6

Summary of August Crop Report.

The following tabulation is a summary for the United States of crop conditions on August 1, with comparisons, as estimated by the Bureau of Statistics of the United States Department of Agriculture.

Crops.	1909.	1908.	1907.	Ten-Yr. Average.	July 1, 1909.
Corn	84.4	82.5	82.8	82.6	89.3
Winter Wheat, yield—					
per acre, bushels	15.5	14.4	14.6	13.9	82.4
Quality	90.3	90.1	90.5	...	...
Spring Wheat	91.6	80.7	79.4	81.1	92.7
Oats	85.5	76.8	75.6	83.1	88.3
Barley	85.4	83.1	84.5	86.1	90.2
Rye	89.1	88.3	88.9	87.9	91.4
Buckwheat	86.3	89.4	91.9	91.7	...
Flaxseed	92.7	86.1	91.9	87.7	95.1
Rice	84.5	94.1	88.6	90.0	90.7
Tobacco	83.4	85.8	82.8	82.3	89.8
Hay (all)	86.8	92.1	87.0	87.0	87.8
Timothy	85.8	89.8	88.5	87.7	87.1
Clover hay production	78.7	96.6	74.7	82.0	83.8
Quality	89.3	94.4	84.9	87.6	...
Alfalfa	94.4	88.8	88.7	...	91.4
Millet	86.7	86.3	87.6	...	90.0
Kafir Corn	85.0	86.5	85.6	...	89.4
Pastures	84.8	86.4	91.7	89.7	93.1
Potatoes	85.8	82.9	88.5	86.7	93.0
Sweet Potatoes	86.9	88.8	85.7	86.8	89.7
Apples	46.3	52.2	39.4	56.4	54.6
Peaches	45.4	67.1	33.3	54.5	50.0
Pears	56.4	70.6	...	...	57.5
Grapes	89.7	87.1	84.5	85.8	90.2
Blackberries	79.6	85.9	83.3	...	88.8
Raspberries	81.1	84.4	76.3	...	89.5
Watermelons	75.6	79.5	78.2	...	80.6
Cantaloupes	77.0	80.1	74.9	...	82.4
Oranges	86.3	89.1	81.9	...	86.1
Lemons	87.0	93.0	90.7	...	88.0
Tomatoes	84.2	84.5	85.8	...	91.6
Cabbages	85.3	84.5	89.4	...	90.7
Onions	88.8	88.4	90.5	...	91.7
Beans (dry)	89.1	88.0	89.3	...	89.1
Beans (lima)	85.7	86.4	85.1	...	89.1
Peanuts	85.1	85.5	84.9	...	86.7
Broomcorn	83.5	80.8	86.1	...	86.8
Hemp	91.7	77.4	88.1	...	94.0
Hops	82.7	86.4	88.7	89.0	79.2
Sorghum	83.0	85.4	85.3	87.8	87.0
Sugar Cane	88.0	88.3	92.3	88.9	82.5
Sugar Beets	90.4	87.3	92.0	...	90.4
Cotton	71.9	83.0	75.0	80.6	74.6

AT MICHIGAN FAIRS.

We want a representative at each fair held in Michigan and adjoining states. We pay a liberal commission to solicitors. Experienced solicitors desired but experience is not necessary. Write at once for terms, etc. Address the Michigan Farmer, Detroit, Michigan.

Michigan Fairs.

Michigan State, Detroit, Sept. 2-10.
West Michigan, Grand Rapids, Sept. 13-17.
Allegan County, Allegan, Sept. 21-24.
Alpena County, Alpena, Sept. 00-00.
Armada Fair, Armada, Oct. 6-8.
Barry County, Hastings, Sept. 28 to Oct. 1.
Bay County, Bay City, Sept. 14-17.
Calhoun County, Marshall, Sept. 14-17.
Caro Fair, Caro, Sept. 14-18.
Charlevoix County, East Jordan, Sept. 28-30.
Clinton County, St. Johns, Sept. 28 to Oct. 1.
Crawell Fair, Crawell, Sept. 22-24.
Cass City Fair, Cass City, Sept. 29 to Oct. 1.
Deckerville, Deckerville, Sept. 14-16.
Eaton County, Charlotte, Sept. 21-24.
Flint River Valley, Burt, Sept. 21-23.
Fowlerville Fair, Fowlerville, Oct. 5-8.
Gratiot County, Ithaca, Aug. 24-27.
Hillsdale County, Hillsdale, Sept. 27 to Oct. 1.
Howard City Fair, Howard City, Aug. 31 to Sept. 3.
Huron County Fair, Bad Axe, Oct. 5-8.
Imlay City Fair, Imlay City, Oct. 5-7.
Kalamazoo and So. Mich., Kalamazoo, Aug. 30 to Sept. 3.
Lenawee County, Adrian, Sept. 20-24.

Marquette County, Marquette, Sept. 6-10.
Midland County, Midland, Sept. 14-17.
Milford Fair, Milford, Sept. 28 to Oct. 1.
North Branch Fair, North Branch, Sept. 22-24.
Northeastern Industrial, Flint, Sept. 21-24.
Otsego County, Gaylord, Sept. 14-17.
Osceola County, Ewart, Sept. 14-17.
Ottawa-West Kent, Berlin, Sept. 21-24.
Tri-County, Lake Odessa, Sept. 7-10.
Tri-County, Reed City, Sept. 21-24.
Tuscola County, Vassar, Sept. 29 to Oct. 1.
Arenac County, Standish, Sept. 23-25.
Oceana County, Hart, Sept. 21-24.
West Allegan-South Ottawa, Holland, Sept. 21-24.

State Fairs and Expositions.

Michigan—Detroit, Sept. 2-10.
Indiana—Indianapolis, Sept. 6-10.
Ohio—Columbus, Aug. 30 to Sept. 3.
Illinois—Springfield, Oct. 1-9.
Kentucky—Louisville, Sept. 13-18.
Pennsylvania—Bethlehem, Sept. 7-10.
New York—Syracuse, Sept. 13-18.
Canadian National Exposition—Toronto, Aug. 28 to Sept. 13.
Iowa—Des Moines, Aug. 27 to Sept. 3.
Wisconsin—Madison, Sept. 13-17.
Minnesota—Hamline, Sept. 6-11.
International Live Stock Exposition—Chicago, Nov. 28 to Dec. 5.
American Royal Live Stock Show—Kansas City, Oct. 11-16.
National Corn Exposition—Omaha, Dec. 6-18.
St. Louis, Gratiot Co., Aug. 16-21.

We will consider it a favor if any one knowing of any fair not in above list would please advise us of the time and place where same will be held.

JUST TO INTRODUCE IT! We are making an offer of the MICHIGAN FARMER to JANUARY 1 FOR ONLY 10 CENTS.



YOUR ROOF

Learn About Paroid Roofing—

Read the facts, then decide

Every year, you're learning how to raise a little more corn to the acre—or oats—or hay. At 40, a man farms better than at 20. That's progressive experience.

Now, we've had a long, progressive experience in making roofing—over 25 years—much more experience than any other roofing manufacturer to-day. So we've learned a lot of things others have yet to find out.

PAROID ROOFING

We've learned how to make the PAROID felt right, because we make it in our own mills. Other manufacturers buy their felt from first one mill, then another—wherever they can get it cheapest. We have the most up-to-date felt mill in the country, equipped with special felting machinery.

We have designed our own saturating and coating machines—have our own special formula for making our waterproof compound—the result of years of experiment and test. This gives the most pliable, smoothest-surfaced, longest-lasting roofing on the market.

Proslate Roofing

is made to meet the demand for a colored roofing where architectural effect is desired. We use our regular finished PAROID as a base and add an extra weatherproof deep red colored coating by a separate process. The ornamental edge gives the effect of stained shingles or slate. Especially designed for residences, bungalows, club houses and fine farm buildings.

Neponset Red Rope Roofing

has been the standard low cost roofing for twenty-five years. Costs about the same as tarred felts and other cheap roofings, but lasts three or four times as long. Contains no tar, clean to handle, easy to lay.

OUR GUARANTEE is that we will replace every square foot of roofing that proves to be of defective manufacture. If a stronger guarantee than this could be made we would make it. We also make the celebrated NEPONSET WATERPROOF BUILDING PAPER and FLORIAN SOUND DEADENING FELT for dwellings.

Free Books

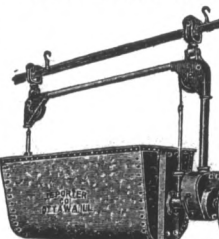
To the Man Who is Going to Build.

Tell us the kind of building or repairing you are planning and we will send you the right book with samples of our products and all of our building suggestions free. Be sure to write us—our advice may save you a costly mistake.

Dealers everywhere sell our roofings.

F. W. BIRD & SON, Makers,
Established 1817.
125 Mill St., East Walpole, Mass.

No Barn is Complete Without a Porter Feed and Litter Carrier



Greatest capacity easiest to operate and strongest of litter carriers. Carrier wheels are roller-bearing and are swivelled in such a manner as to round a curve with perfect ease. Runs on our celebrated "Columbian" track, which can be bent to any curve, and will sustain any reasonable weight. The hopper is held automatically at any height and can be tripped at will of operator. Send for Descriptive catalogue of carriers, hay tools, etc.

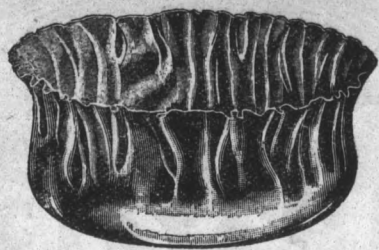
J. E. PORTER COMPANY, Ottawa, Ill.

AGENTS 200% PROFIT

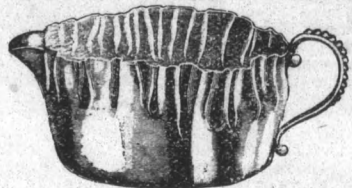
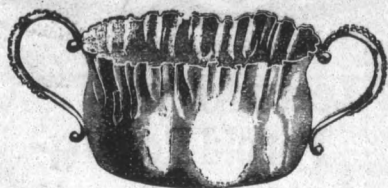
Handy, Automatic HAME FASTENER

Do away with old hame 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.

F. Thomas Mfg. Co., 845 Wayne St., Dayton, Ohio



Three Piece Silver Plate Berry Set



This can not fail to interest the ladies, and any lady with a little spare time can easily get it free. The three pieces are quadruple silver plate satin finish, full gold lined, with fancy crimped edges. The berry bowl (can also be used as a fern dish, nut bowl, etc.) is $7\frac{1}{4}$ inches in diameter. The creamer and sugar each $3\frac{1}{2}$ inches in diameter not including handles. A very pretty set that will ornament any table. Given free (3 pieces) for only 15 TRIAL SUBSCRIPTIONS. By express. Premium No. 176.



Cut Up Puzzle Map of North America

Puzzle maps are all the rage and not only furnish amusement for old and young, but are really one of the best ways of teaching the youngsters, as the maps are cut in irregular pieces which give no clue to where they belong and the only way to solve them is to study the printed side and compare with other pieces. Maybe you think you know your geography, but this will keep you guessing. Given free for 2 TRIAL SUBSCRIPTIONS. Postpaid. Premium No. 164.



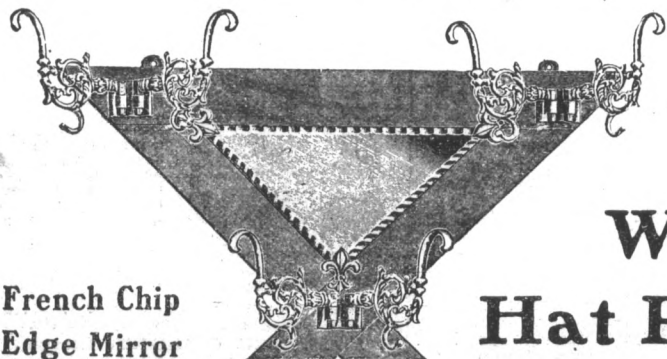
Everyday Cook Book

By Isabel Gordon Curtis. There are cook books and cook books, but the trouble is with most of them that they are too fancy to follow, and the housewife drops back on the old standby dishes after all, but this book was compiled with the view of making it a book of recipes, which are not too much trouble for everyday use, and the author has succeeded to a marked degree. The recipes are divided under 20 heads, and every recipe has been tested and verified by the New England School of Cookery. It is a very convenient form $4\frac{1}{4} \times 9\frac{1}{2}$ inches, with white oilcloth cover, which can be washed. Contains 320 pages, half devoted to recipes, the others blank so that new recipes can be pasted in the book under their proper heads and easily found when wanted. Sent postpaid for 6 TRIAL SUBSCRIPTIONS. Premium No. 180.



Beautiful Dressed Doll

In all the homes we reach, we don't believe there is even one little girl that can't find room in her family for this handsome dolly. It is 16 inches tall, with soft body, bisc head, open mouth showing teeth, opens and closes its eyes, and has a fine head of hair with side curls. It has a fancy dress, with blouse, removable shoes and stockings and trimmed hat with streamers. Pull a string and it says "papa" and "mama." Now every little girl can have one of these beautiful dolls, because we give it for only 6 TRIAL SUBSCRIPTIONS, and almost any little girl can get that many, while we don't think you could buy the doll alone in any retail store for less than \$1.00. Sent by express securely packed. Premium No. 169.



French Chip
Edge Mirror

Wall Hat Rack

Gilt
Finished
Metal

An ornament as well as an article of continued usefulness in any home. The frame is made of pressed steel 24 inches long, finished in Ormola gold, baked on, giving it a very handsome appearance which will last for years if not defaced. The center is a triangular mirror with the latest French chip edge. Six removable metal hooks and two hangers for the wall. This is so well made that there is practically no wear out to it under any ordinary usage. Given for 15 TRIAL SUBSCRIPTIONS. By express. Premium No. 173.

It's Worth To Help Us Reach

There are lots of good farmers in Michigan, but should be for we will make it worth your while to

We will do our part in making subscription offer with which you can and in return for your favor, we will of which if bought at retail would the amount of cash you send us for

We will send

(The Michigan Farmer)
To Jan. 1, 1910 for
To New Subscribers

See your friends and neighbors who are get them to take advantage of this offer; send cents for each one, and select your premium that you send.

Don't Forget to Tell Them
That The Michigan Farmer
the subscription If They

A NEW subscription for one year as
as four [4] trials;

A NEW subscription for two years
as five [5] trials;

A NEW subscription for three years
as seven [7] trials.

Your club may include subscriptions and they will count as above. They may also Notice that some premiums are sent post in which case the receiver pays the delivery cost

Will You Help Us Put The
Into All Your Neighbors

It need not take much of your time, in ing to your friends as you meet them, and we will well repaid in the value of the premium, but friends and a favor upon us.

THE MICHIGAN FARMER



DOUBLE LEATHER PURSE. — Three ball, three inch nickel plated frame, 2 pockets, leather lined, blocked and welted. A good serviceable purse of popular style. Sent postpaid for 4 TRIAL SUBSCRIPTIONS. Premium No. 101.



BILL FOLD AND COIN PURSE. — Cowhide leather, stitched thru-out. One pocket for coins, and separate fold for bills. Button fasteners. Will outwear a dozen of the ordinary kind. Sent postpaid for 4 TRIALS. Premium No. 102.



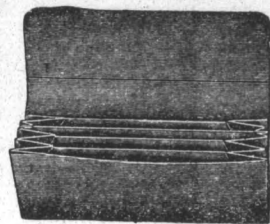
LADIES' HAND BAG. — Black seal grained, welted, no-rein lined, Vienna handle, 7-inch frame, gun metal finish. Contains small coin purse. Size $8 \times 4\frac{1}{2}$ inches, not including handle. Sent postpaid for 6 TRIAL SUBSCRIPTIONS. Premium No. 103.



EXTRA DEEP COIN PURSE. — Black kid leather, 3 inch, 3 ball frame. One pocket the size of an ordinary purse, while the other pocket is the full depth of the bag, $6\frac{1}{4}$ inches. Just the thing to hold a lot of change. Sent postpaid for 5 TRIAL SUBSCRIPTIONS. Premium No. 104.



SQUAW BAG. — Colored ooz leather, with fringed end and double strap handle, $2\frac{1}{4}$ inch gilt frame. For little girls, altho many ladies carry them for change. Sent postpaid for 5 TRIAL SUBSCRIPTIONS. Premium No. 105.



BILL BOOK. — Black seal grained, round bottom, canvas lined cover, four pockets, size $3\frac{3}{8} \times 7\frac{7}{8}$ inches. A well made, serviceable book. Sent postpaid for only 4 TRIAL SUBSCRIPTIONS. Premium No. 106.



SHARP - SHVE SAFETY RAZOR. — This is not a toy, but a thoroly tested and guaranteed razor. Silverplated frame holding the blade at the proper 45 degree angle, a decided improvement over all other safety razors. Thin blades of the highest grade ribbon steel with reinforced back. Razor with one blade sent postpaid for 4 TRIAL SUBSCRIPTIONS. Razor with 6 blades sent postpaid for 6 TRIAL SUBSCRIPTIONS. Premium No. 112.



MAGNIFYING OR SEED GLASS. — Something every farmer should have and really needs for examining seeds, insects and fungus pests. The experiment stations are constantly urging farmers to make use of such glasses. Sent postpaid for 3 TRIAL SUBSCRIPTIONS. Premium No. 113.



DOUBLE SWING RAZOR STROP of excellent quality. Canvas for sharpening, leather for finishing. Sent postpaid for only 5 TRIAL SUBSCRIPTIONS. Premium No. 114.



STA-FAST SHAVING BRUSH. — Ebenoid black handle, badger mixed bristles, securely clamped with nickelled ferrule. The kind that don't pull out. Sent postpaid for only 3 TRIAL SUBSCRIPTIONS. Premium No. 115.



POST CARD ALBUM FOR 100 CARDS. — Handsome grained leather paper covers, gold stamping, size $8\frac{1}{4} \times 9\frac{1}{2}$ inches. Heavy black crash paper leaves, perforated for 2 cards to the page. Back reinforced, stitched and stubbed to prevent bulging. Sent postpaid for 4 TRIAL SUBSCRIPTIONS. Premium No. 146.



SALT AND PEPPER. — Silver plated on nickel-silver base, are of excellent quality and will give good service. Screw tops. A pair of these (one each salt and pepper) sent postpaid for 4 TRIAL SUBSCRIPTIONS. Premium No. 162.



IMPORTED GERMAN RAZOR. — Best English razor steel ground by German grinders and imported by us, saving all middle profits. Full size $\frac{5}{8}$ -inch blade, hollow Hamburg ground, honed, stropped and set ready for use. Black rubber handle. Guaranteed and replaced free if not satisfactory. Worth \$1.50. Sent postpaid for 9 TRIAL SUBSCRIPTIONS. Premium No. 174.



ROUGH AND READY KNIFE. — A great favorite with the boys, as it stands lots of hard usage, is well made, with 2 razor steel blades in ebony handle. Mention knife No. 11. Length as shown 6 inches. Sent postpaid for 4 TRIAL SUBSCRIPTIONS. Premium No. 167.

Waste Your While Teach Your Friends

Good farmers who are not reading The Michigan Farmer should be for their financial profit, and our whole to help us reach them quickly.

In making an extremely liberal trial which you can easily get them interested, for, we will give you premiums the cost of the trial would in most cases be more than send us for the subscriptions.

Michigan Farmer \$10 for Only 10 Cents New Subscribers Only

Subscribers who are not reading The Mich. Farmer; this offer; send the subscriptions to us with 10¢ of your premiums, depending upon the number of years.

Tell them that We Guarantee
Michigan Farmer will Stop at End of
Year If They Do Not Renew It.

One year at 75 cents will count the same as 10¢;

Two years at \$1.20 will count the same as 20¢;

Three years at \$1.50 will count the same as 30¢.

Subscriptions for TRIALS, one, two or three years, may also be from any postoffices. Premiums are sent postpaid, others by freight or express, with delivery charges.

Put Us Put The Michigan Farmer
In Your Neighbors' Homes?

It is of your time, in fact can be done simply by speaking to them, and we assure you that you will not only be a premium, but will also confer a benefit on your neighbors.

N FARMER, Detroit, Mich.

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CARPENTER'S 3 - FOOT FOLDING RULE. — Metal spring joints holding it rigidly in position, either open or closed. Sent postpaid for 4 TRIAL SUBSCRIPTIONS. Premium No. 152.



WATCH FOB.—Oxidized silver finish, on hard white metal base, black leather strap with nickel buckle. A very beautiful piece of die stamping, the corn and leaves standing out in high relief. Fobs of equal quality retail for 50 cents. Sent postpaid for 4 TRIAL SUBSCRIPTIONS. Premium No. 160.



TOBACCO POUCH.—All leather with draw strings and button fastener. Will hold a good supply of tobacco, or can be used for a money purse. Size, flat 5x5 1/4 inches. Sent postpaid for 4 TRIAL SUBSCRIPTIONS. Premium No. 161.



MILK TUBES.—For hard milking cows, or sore teats. Silver plated, self retaining. Three lengths, 2 1/2, 3 or 3 1/2 inches. One tube (mention length) sent postpaid for 3 TRIAL SUBSCRIPTIONS. Premium No. 124.

ROPP'S COMMERCIAL CALCULATOR.

—An invaluable book for farmers, containing hundreds of tables, especially for farmers' use; grain tables, wages, interest, log measure, capacity of bins, tanks, etc., value of different commodities at different prices, etc. Would take a book to explain its contents. Saves time and mistakes and gives accurate results. Pocket size, cloth covered. Sent postpaid for 3 TRIAL SUBSCRIPTIONS. Premium No. 118.



DOMINOES.

—Double-six set, black with white dots; in box 2x2 1/4 x 7 1/2 inches. Sent postpaid for 4 TRIAL SUBSCRIPTIONS. Premium No. 120.



GAME OF AUTHORS.

—A pocket edition of this ever popular game, in fancy slide box, red leather paper covered with gold lettering. Sent postpaid for 4 TRIAL SUBSCRIPTIONS. Premium No. 121.



LOCK STITCH SEWING AWL.—Makes a lock stitch with one thread and one operation. Straight and curved needles, with thread ready for use. Indispensable about the farm for harness, sacks, canvas or any heavy sewing. Sent postpaid for 7 TRIAL SUBSCRIPTIONS. Premium No. 123.



TAPE MEASURE.—Nickel plated metal case, with spring winding device, operating automatically when center stud is pressed. Three feet by inches on one side, metric system on opposite side of tape. A handy thing for the pocket or the workbasket. Sent postpaid for 3 TRIAL SUBSCRIPTIONS. Premium No. 111.



ROMAN GOLD LOCK.—Exact size of illustration. Opens and holds one picture. Good quality, guaranteed for five years. Sent postpaid for 6 TRIAL SUBSCRIPTIONS. Premium No. 134.



RUBBER STAMP OUTFIT.—Consisting of 5 alphabets, figures, tweekers, holder and ink pad. Ready for use. Sent postpaid for 4 TRIAL SUBSCRIPTIONS. Premium No. 141.



HOHNER MARINE BAND HARMONICA.—Highest grade, ten single holes, 20 reeds, 2 brass plates, heavy convex covers, open back, nickel plated. Retail value 50 cents. Sent postpaid for 4 TRIAL SUBSCRIPTIONS. Premium No. 140.

TEAT PLUG.

—For hard milking cows or leaky teats. Prevents leakage where teat opening is relaxed, and cures hard milking when due to an obstruction in the canal, or abnormal contraction in the small muscle at end of teat. Sent postpaid for 5 TRIAL SUBSCRIPTIONS. Premium No. 125.



FARMER'S CALCULATOR, VETERINARY ADVISER AND FARM RECORD.—The veterinary advice alone makes this book of continued value to every farmer and in addition there are hundreds of tables of weights, measures, interest, dimensions, etc., and a very complete farm record for accounts. Pocket size, 3 1/4 x 6 1/2 inches. Cloth covers, 112 pages. Sent postpaid for 3 TRIAL SUBSCRIPTIONS. Premium No. 127.

Handsome Mission Wall Clock

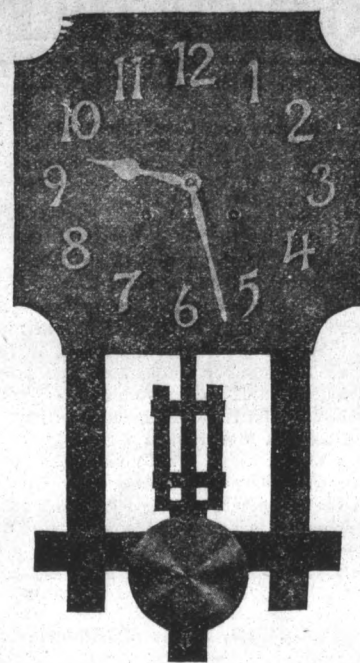
A very beautiful clock that will ornament any home and be an article of permanent usefulness. Finished in dark Mission oak; face 13x13 inches, entire length 25 inches. Gilt cast figures, brass hands and 4 3/4-inch brass face weight on pendulum.

Fitted with best grade

**Gilbert
Eight-Day
Strike Movement**

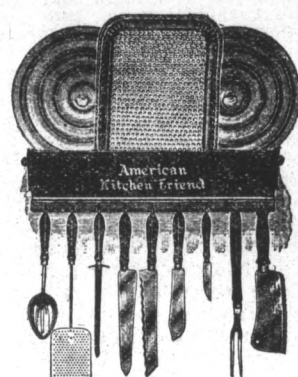
making it a first-class, serviceable time-keeper.

The same clock can not be bought at retail for less than \$6 to \$8. Given free for 40 TRIAL SUBSCRIPTIONS. Shipped by freight or express. Premium No. 187.



Complete Kitchen Outfit

A utensil for every purpose and everything in its place, making the work easier, and saving time and many steps. The steel rack fastens against the wall with space behind it for kettle covers, trays, etc. (covers and trays not included), and a complete outfit of good quality utensils, with black rubberoid finish, hardwood handles. A convenience that every woman will appreciate. Given for 12 TRIAL SUBSCRIPTIONS. By express. Premium No. 178.



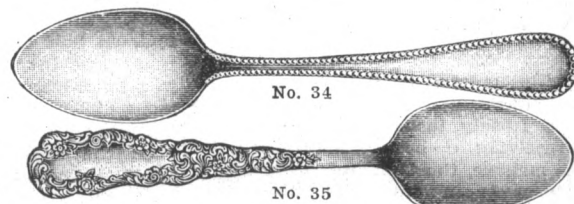
Fancy Gilt Clock with Alarm

Gold plated frame of pleasing design, lacquer finish so it will not tarnish, 3-inch ivory finish dial, gilt center, beveled plate glass. Reliable 1 day movement with alarm attachment. Stands 10 3/4 inches high. Given for 16 TRIAL SUBSCRIPTIONS. By express. Premium No. 182.



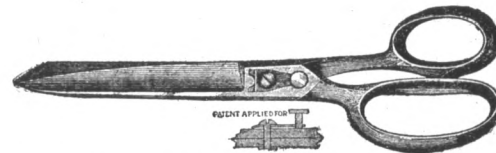
Rogers' Genuine Nickel-Silver Teaspoons

Made of solid nickel-silver, no plating of any kind to wear off, being the same material all the way thru. Heavy weight. Six of either style for 6 TRIAL SUBSCRIPTIONS. Twelve of either style (or 6 of each) for 12 TRIAL SUBSCRIPTIONS. Postpaid. Premium No. 155.



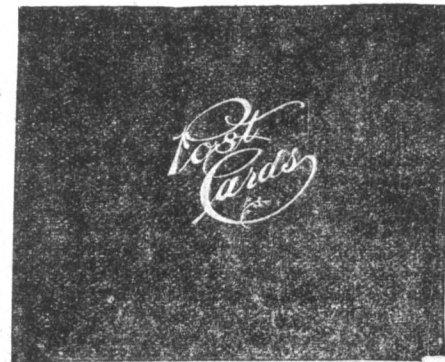
Self-Sharpening Adjustable-Tension Shears

Most shears won't cut because you can not adjust the bolt. These avoid that trouble by means of an adjustable bolt regulated by a spring tension which prevents the blades from spreading, is easily adjusted for light or heavy material, gives a clean cut the full length of the blades and will last for years. Eight-inch size, nickel plated finish. Sent postpaid for only 4 TRIAL SUBSCRIPTIONS. Premium No. 159.



Post Card Album For 300 Cards

Just the thing for the post card collector. Handsome black alligator grained paper cover, title embossed in gold, reinforced binding; back stitched and stubbed to prevent bulging. Leaves are of heavy black crash paper, perforated to hold 3 cards to a page—2 horizontal and 1 vertical. Any card can be removed without disturbing the others. Size, 9 inches wide and 11 inches long. Given free for 5 TRIAL SUBSCRIPTIONS, if sent by express at the expense of the receiver, or if 10 TRIALS are sent we send charges prepaid. Premium No. 183.



HORTICULTURE

SOWING BUNCHING ONIONS.

Please inform me, thru the M. F. if it is practical to sow Beaulien's Hardy White onion now to be used for bunching the following spring. The soil I shall use will not heave easily.

Eaton Co.

F. HILL.

While not having had personal experience with this particular variety, I think there would be no exception to this sort. It has been rated by growers as entirely hardy and a profitable kind; at least, this is the consensus of opinion insofar as I have been able to learn from observation and correspondence with those having had it under culture. Your ground as you mention, is well calculated for the work; but I would take the precaution to mulch with straw or some litter in early winter, letting it remain until hard freezing is over in the spring. This is the safe plan with all varieties, and I think you will meet with success.

J. M.

TROUBLED WITH BORERS.

Could you tell me thru your paper what to do for my young orchard? It has been set five years and has been cultivated, this year has had wheat cut from the ground. When cutting I found one tree which the borers had killed. Yesterday I found another broken over. Is there anything that can be done for it? The orchard has been doing finely until now.

Eaton Co.

F. E. MAPKLE.

Apple tree borers are the larva of beetles that lay their eggs on the bark of the apple trees. There are two kinds, viz: the flat-headed and round-headed borers. The latter are found near the ground while the former generally work about the larger branches. Two seasons of the year offer opportunity for combating the pest. In the spring the trunks and larger branches, if both kinds of borers are troubling, may be painted with whale-oil soap, and during the fall the grubs or larva can be dug out of their burrows. After a few have been found it is not a difficult matter to discover the enemy by the residue from his work and from the noise of his eating thru the wood. When found he can be dug out with a sharp knife, or killed in his burrow with a small wire—the wire being inserted and forced to where the intruder is working when, by manipulating it he is destroyed. Do not injure more of the bark than is necessary in cutting out the pest.

BREAKING DOWN ONION TOPS.

I have in an acre of onions. Will you please tell me when to turn them down? Or, do they have to be turned down at all?

Ottawa Co.

A. T.

Usually onions do not need to be broken down. When planted on new land, a freshly turned down sod, or on soil receiving a heavy application of coarse manure, the tops often grow larger and keep green too long to properly mature the bulbs. The source of the seed also furnishes a cause to this late growing tendency. If the tops continue green and do not show any disposition to die above the bulb the latter part of August or the first of September, then it is well to roll or break them down. It is difficult to find a crop where some of the plants remain green after the others have ripened, and where the number is comparatively small it would not pay to roll down, since the onions resulting are generally of lower quality than those ripening from the natural dying of the stems and the operation is more likely to damage those that die down than the others as the stiff stems of the latter offer resistance to the roller. A barrel makes a good implement for rolling down the tops; it is light enough that the bulbs will not be bruised to any large extent.

ORCHARD OVER-RUN WITH WILD MORNING-GLORY.

Will you please tell me thru the columns of your valuable paper how to destroy the wild morning glory? It is in my orchard and is spreading every year. It is a great pest and I would like to get rid of it. Have tried several remedies, such as covering with salt, slacked lime, also, heavy manuring to smother; but these made it grow still better.

Emmet Co.

SUBSCRIBER.

This plant is persistent, as the inquirer has found. Many times the plant will yield to the remedies which he has tried, but the locality often has much to do with the effectiveness of the treatment. We would suggest that he try clean cul-

tivation, using teeth that run shallow but leave nothing uncut—almost every make of cultivator has teeth for work of this nature. If it is not advisable to cultivate, the pasturing of hogs in the orchard will likely result in lessening the number of plants since hogs relish them and will tear up the soil for the root-stalks which make the plant so persistent in its occupation of the soil. Where alfalfa can be grown, few farmers have found that the weed will not stay long in a field seeded to the legume. If this plant can be started in the orchard (a procedure that would seem to offer some difficulty), good might come not alone in riding the orchard of the morning-glory, but also in putting in its place a plant that will furnish nitrogenous matter for the use of the trees. But alfalfa being a deep feeder would not be an ideal plant to grow with trees as both would strive to occupy the same root feeding ground.

SPECIAL CARE OF DISEASED RUFFAGE.

It has reached the point where seemingly there is nothing but eternal warfare against fungus and bacterial diseases and insect pests. Preventive measures are better than curative, but with all possible care along these lines they still steal in upon us to our hurt. But doubtless, the preventive efforts save much loss that otherwise would follow. The vine crop ruffage is a special source of danger and the only safe plan is to dry and burn them just as soon as they cease to bear. If thrown on the compost heap their fertilizing value will be trifling compared to the risk of spreading the disease. When burned they are safely out of harms way, and the ashes as far as they go, will be of some value. Wherever club root is present in the cabbage, cauliflower, or any member of the crucifera family, all diseased plants should be burned or boiled, root and branch; and under no circumstances should they be left to lie on the ground, or be fed out. The compost heap is a good thing in its way; but without very much care as to what is consigned to it, and the after treatment, it easily becomes a hotbed for the breeding of insects and fungus diseases.

Wayne Co.

J. E. MORSE.

BERRY NOTES.

The old patch of strawberries is now thoroughly cleaned out and the rows are making a good start considering the very dry weather. This patch is in a peach and apple orchard four years old, the whole comprising one and one-half acres, but as the trees take up a good deal of room there is perhaps an acre of berry rows. The patch was becoming quite foul, as half of it has been fruited two years and the manure applied has brot in a good many weed seeds. It was also more difficult to clean up on account of the trees causing more hand work. However, the work was done at a cost of \$27.35, including the mowing, raking and hauling the mulch, plowing middles, harrowing, cultivating, and hoeing and pulling all weeds. All the ground was worked over with the cultivator or hoe. Part of the mulching was left around the trees, and in hoeing the larger weeds were thrown about them.

A comparison of this expense with that of growing a patch of spring set plants of one acre in an orchard one year old may be interesting. We will leave out the cost of fertilizing in both cases. The total cost of plants, preparation of ground and care of this acre of plants is \$60.88. This includes the layering of the runners which is not quite completed, and will leave the patch so about the same amount of care will be required as for the old bed. Of this amount, \$26.25 was for 5,250 plants at 50 cents per hundred. The plants were home grown, so perhaps a part of this should be deducted.

I think that on an average it will cost about twice as much to grow spring set plants up to the middle of August as to clean out and renew an average old bed. We also lose the use of the ground for a season in growing the new beds, so everything considered, it would seem as if the renewing of beds that have fruited but are in fairly good condition is a paying practice. If the runners are layered the first season and the surplus ones kept cut, the rows are established and after mowing and raking, the stubs of the old plants are spaced so as to be easy to hoe around with a narrow hoe, or better yet, with a hoe having a couple of prongs at the back for digging up the

ground without cutting the roots. We rely more on getting the old plants to throw out new roots and grow new crowns than for them to throw out runners and grow new plants to fruit the next season. If the season is wet runners and new plants will form quite copiously, but if dry, as at present, few new plants will take root and one must rely on the old ones. Last year a renewed patch and a newly set one were side by side and, if anything, I believe the yield was in favor of the old patch. The plants were mostly old plants also, as last season was so dry that few new plants formed in the renewed beds.

The care of both plantations from now on will be to cultivate about every ten days, depending upon the weather, until October, to hoe out between the established plants, and to keep surplus runners cut. This sounds simple, but it is a rather slow, laborious process. Berry growing is an occupation in which machinery does not supplant the hoe as with many farm crops. A fortune awaits the man who can invent a practical machine hoe and runner cutter for strawberry growers.

Calhoun Co.

S. B. HARTMAN.

MAKING CIDER VINEGAR.

The process of making cider vinegar is very simple. Good fruit should be used, but unmarketable fruit will make a good grade of vinegar, provided all defective parts of the apples are removed. The finished product will be no better than the quality of the apples used.

Perfect cleanliness is a very necessary feature. Apples that are picked up from the ground are usually dirty and should be thoroughly washed before being placed in the cider mill. The mill and all utensils used in the making should be kept well cleaned. To use unclean fruit or unclean vessels simply invites bad fermentation. If all sorts of germs, which are found on dirty and decayed fruit, are put in the cider, a good quality of vinegar must not be expected.

The amount of juice that can be expected from one bushel of apples depends upon the machinery and variety of apples used. With large machinery four gallons of juice can be extracted from one bushel of a good variety of cider apples. I have recovered three gallons of juice from one bushel of Wine Saps with a modern hand mill.

Where one has no mill the fruit can be pulped by hand with wooden mauls in a wooden trof. The juice can be extracted very effectually by this method; and, where only enough vinegar is wanted for home use, it is not a difficult matter to secure it in this way.

The best receptacles in which to put the cider are molasses kegs, or whiskey barrels—preferably those which have held vinegar previously, since fermentation commences sooner when the fermenting organism is present than when it must find its way into the liquid from outside mediums. The common name for this organism is "mother-of-vinegar," which in the course of its life processes brings about a somewhat complicated change of the sugar in the apple juice, to acetic acid, which is the sour principle in vinegar.

To make a good grade of vinegar two things are very essential during the process of fermentation. First, the air must have free access to the liquid to support the organism. Second, the temperature must be favorable for the growth of the fermenting agent. If possible, the barrels should be placed in a room where the temperature will be fairly constant at 70 to 75 degrees, placed on their sides in order to give more surface to the atmosphere, and filled with juice to within six or eight inches of the bung hole.

The hole should be carefully covered with clean cotton, so as to exclude the entrance of germs and vermin. This cover readily permits the gases to escape and should never be allowed to touch the liquor. It is a great mistake to allow the barrels or kegs to foam over, as all sorts of germs enter therein.

After a few days raise the cotton and note the condition of "head" on the liquid. It should become thick and have a dark appearance. As soon as the liquid becomes comparatively quiet, it will be found fairly bright and limpid. Under ordinary conditions some time is required before a good product can be made. When sour enough for use the vinegar can be drawn as required and strained, and the "mother-of-vinegar" left for the next season.

Illinois.

W. H. UNDERWOOD.

Silence!



The instinct of modesty natural to every woman is often a great hindrance to the cure of womanly diseases. Women shrink from the personal questions of the local physician which seem indelicate. The thought of examination is abhorrent to them, and so they endure in silence a condition of disease which surely progresses from bad to worse.

It has been Dr. Pierce's privilege to cure a great many women who have found a refuge for modesty in his offer of FREE consultation by letter. All correspondence is held as sacredly confidential. Address Dr. R. V. Pierce, Buffalo, N. Y.

Dr. Pierce's Favorite Prescription restores and regulates the womanly functions, abolishes pain and builds up and puts the finishing touch of health on every weak woman who gives it a fair trial.

**It Makes
Weak Women
Strong
Sick Women
well.**

You can't afford to accept a SECRET nostrum as a substitute for this non-alcoholic medicine OF KNOWN COMPOSITION.

ROYAL
Hydrated or Crushed
AGRICULTURAL LIME
is the strongest Lime in Ohio, and greatly benefits the soil. Same is put up in packages easy to handle. It is ready for the drill. Experimental Stations advocate its use. Write or wire us for prices for fall seeding. Made only by
SCIOTO LIME & STONE CO., Delaware, O.

AGRICULTURAL LIME
Prices and information furnished on application.
The Woodville Lime & Cement Co., Toledo, Ohio.

FULTZ WHEAT
Best Milling Variety, Good Yields, Sure Cropper.

Our crop pure and carefully prepared for sowing. Also Poole, Mammoth White Rye, New Crop Timothy. Write for samples, circulars, prices.
The O. C. Shepard Co., 20 B St., Medina, O.

SEED WHEAT; GYPSY,
bearded highest yields at Ohio Experiment Station. Poole, smooth, next highest yields at the Station. Fultz, smooth, the old reliable standard. This wheat is grown entirely on our own farms, by ourselves especially for seed purposes. It is cleaned free from all foul seeds and put up in new bags. Price in lots of 10 bu. or over \$1.50 per bu.; less amounts \$1.60 F. O. B. Medina. Our orders always exceed our supply so order early and avoid disappointment. Free samples.
C. B. ABBOTT & SONS, Chippewa Lake, O.

WINTER SEED WHEAT
62 Bushels Per Acre—The New Malakoff and Turkish Red—two hardest varieties, surest croppers and biggest yields; made world's record. Samples, prices and descriptive circulars FREE. Mention this paper, Address **RATEKIN'S SEED HOUSE, Shenandoah, Iowa.**

SEED WHEAT!
400 acres. Grown especially for seed purposes in the wheat belt of Lancaster Co., Pa. Return of seed allowed and money refunded if not satisfactory. The best varieties smooth and bearded. I issue a neat circular. It is free but you must ask for it.
A. H. HOFFMAN, Bamford, Pennsylvania.

JONES LONGBERRY WHEAT—pure clean seed \$1.25 per bu.; best bags to hold 2½ bushels 20 cents each. **J. W. CHAPIN, Eden, Ingham Co., Mich.**

SEED WHEAT.
A limited amount of White Winter Wheat, grown especially for seed. The best we have ever produced. Now ready for delivery. Price, \$1.25 per bu.; bags extra. Send for sample.
WOODCOTE STOCK FARM, Ionia, Mich.

MEALY WHEAT FOR SALE—One of the very best varieties grown. **COLON C. LILLIE, Coopersville, Mich.**

When writing to advertisers please mention the Michigan Farmer.

FARMERS' CLUBS

Address all correspondence relative to the organization of new Clubs to Mrs. W. L. Cheney, Mason, 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 CLUB AND THE LOCAL FAIR.

While the Farmers' Club Fair has come to be a special feature of club work in many clubs and is to be highly recommended for emulation by other clubs, yet for all clubs that do not feel like adding this feature to their regular work, the local or county fair offers an opportunity to make a special club exhibit, which will prove good advertising for the club and add to the interest of the membership not a little. Several clubs in the state have done this with entire success, and even in case a club fair is held, an exhibit of this kind will prove advantageous for any club, whose membership is interested in a local fair held within the territory to which the club is tributary. Arrangements could doubtless be made with the officers of the local fair for special exhibition space for such an exhibit, and in cases where more than one club could conveniently compete for prizes, as would be the case in several counties in the state, local managers would probably be willing to make a special class and offer liberal premium for such exhibits. It would help the clubs as well as help the fair in any event, and the suggestion might be acted upon with profit by many local farmers' clubs.

SHALL WE AS FARMERS SEEK TO BECOME SPECIALISTS?

Synopsis of paper read at the August meeting of Columbia Club, of Jackson Co., as reported by the correspondent:

The term specialist is applied in a general way, to a person who follows a particular line or branch of some business. Those who have made the greatest inventions and discoveries in science, those who accomplish mighty achievements of this progressive age, have all been specialists. Life is too short to learn everything, even in so simple a business as farming. There are so many helps in the way of experiment stations, both state and national, as well as the agricultural press, that anyone who desires ought to be able to make a success of some special line of farming. To become a specialist on the farm one need not necessarily raise but one crop, but only to make that one of the most importance. Follow a system that is adapted to one farm and locality, and stick to it from year to year, and be satisfied only with the best in whatever we adopt. Farmers should study feeds and feeding, and become specialists along this line.

CLUB DISCUSSIONS.

Discuss Local Market.—The August meeting of Columbia Club, of Jackson Co., was entertained by Mr. and Mrs. J. B. Freeman and Mr. and Mrs. Sherman Gallup at Evergreen Hill, the home of the latter. The commodious and shady lawn made an ideal place for the meeting which was called to order by President Crego. After the usual opening exercises and the routine business, the secretary presented a communication from the Chamber of Commerce of Jackson, regarding a public market in the city. It was voted to leave the discussion of the subjects to the next meeting. Roll call, "What Is My Duty Toward the Club?" was quite well responded to, some of the responses being decidedly humorous.

Hold Old-Fashioned Spelling Match.—The interest of the day centered around the "spelling match." The president appointed Mrs. Vining and Geo. Friedrich to choose sides, and Mr. Freeman as schoolmaster. He produced an old-fashioned spelling book and the race began, Mrs. Vining's side winning by a narrow margin. This closed the program, after which a bountiful club supper, including ice cream, was served on the lawn. The next meeting will be held with Mr. and Mrs. Halladay, and will be the first Saturday in September instead of the second and will be an all day meeting.

Early History of Ingham Co.—The August meeting of Ingham Co. Farmers' Club was held at Coldwater Farm, with Mr. and Mrs. N. A. Crittenden, and was one of unusual interest. As President Ives was not present, the vice president, Mrs. W. H. Taylor, called the meeting to order and announced the annual excursion to the M. A. C., Thursday, Aug. 26, and hoped as many would go as possible. Judge Bristol gave an interesting paper, "The Early History of Ingham County." In part he said: "Perhaps no other county has changed any more, early covered by forests and the idea seemed to be to cultivate. The Indians were

here, altho preceded by an unknown race, then the white man."

Ingham county was organized in October, 1829, and included a large territory. The first county seat was laid out four miles east of Mason on the Elijah Brooks farm and named Ingham; a log building built for a court house, but never used. Later it was located at Mason—the right place and right spot—named after Stevens T. Mason. He also spoke of Jefferson City, a village laid out upon the Isaac Drew farm, where the first Fourth of July celebration was held. Also of Columbia, eight miles west of Mason—all that is left is the Columbia road. He described the early schools of the county, one of which was taught by Lucy Rolfe. She had eight pupils and received a salary of \$1 a week and boarded around. A schoolhouse was built in Lansing in 1847, taught by Miss Powell, later by Mrs. J. Bush; commenced with ten scholars and at the end of three months had forty. He also described the early churches, the first, the M. E., being built in 1839, closely followed by other denominations. He told about the judicial circuits. They have grown until now Ingham has two judges. (Not yet). The early roads were almost impassible, followed by the plank roads.

Mason was the terminus of the J., L. & S. railroad from Jackson to Mason for a year, also the terminus of the electric line from Lansing to Mason for about the same length of time.

He interestingly told of the early newspapers, the location of the capital at Lansing, the state institutions located in the county, including the house of correction for juveniles, later changed to the reform school for boys and now the Industrial school, M. A. C. was opened in 1857, women admitted in 1870. This paper brot forth many memories of early days and the discussion was interesting and participated in by many.

Balanced Rations for the Family.—Mrs. Burt L. Gren gave an able paper on "Balanced Rations for the Family." In part she said, "we can do much better upon a mixed diet, that occupation and climate ought to rule the meat question, that men are greater eaters than women and the conditions of one's family should govern the diet. If one is not well, study the diet and change it." Mrs. Alice Robb opened the discussion and said what a wonderful world. Everything was created when the world was made and enough to supply all generations, and that chemical elements do not change. She fully endorsed the paper and recommended the mixed diet.

First Aid to the Injured.—Dr. Thomas arrived in his auto and gave some plain and practical hints about the first aid to the injured. He treated of fractures, sprains and wounds, cautioning one not to give too much stimulant, and especially in case of a wound to keep everything scrupulously clean; as regards poisoning, he regarded the liquid fly poison as dangerous, and spoke of carbolic acid, paris green, arsenic, chloroform and others. As regards burns, he spoke of those from hot water, from fire and from carbolic acid, and to keep the burn covered will save the ugly scar, one of the best ointments for home use was made of equal parts of lime water and sweet oil. Convulsions and fits in a child are like chills in an adult and should be treated the same. Dr. Thomas was given a vote of thanks for his practical talk and was made an honorary member for three years. The next meeting will be with Mr. and Mrs. Irving Sanford, the second Saturday in September and will be a temperance program.

CLUB PICNICS.

Odessa Farmers' Club.

With heavy skies and every indication of rainy weather the Lake Odessa Farmers' Club held its annual picnic in the Bosworth Grove, and in spite of the threatening weather a goodly number were present to enjoy the occasion. Owing to the uncertainty of the weather many did not arrive at the grove until it was about time to serve dinner and the program which was advertised for ten o'clock in the morning was postponed until after the noon hour.

As is always the case with this organization, a dandy picnic dinner was spread, two large tables were necessary to accommodate the crowd. The first tables seated 96 and the second seating numbered 28. The good ladies of the Club came well prepared to satisfy the most hungry heart and the result was of perfect satisfaction to all.

Following the dinner, President Curtis called the gathering to order before a platform, where an interesting program was given. Following the completion of the program, Z. W. Carter opened the discussion of the club enlargement and among other things emphasized the statement that any organization that becomes satisfied with its present conditions soon dies. Mr. Carter's remarks were followed by several suggestions on the discussion that led to the motion of the appointing by the president of a committee of three to act with the officers of the club on the matter of club enlargement. The committee is as follows: John Klaun, M. L. Foght and Frank Aldrich. Following the discussion Miss Carter read a very amusing and interesting reading on the subject "The Financial Difficulties of the Farmers' Wife."

President Curtis announced that the next regular meeting of the club would be held a week earlier than planned on account of the Tri-County Fair, which will bring the next meeting Saturday, Sept. 4, at the home of Mr. and Mrs. William Beard.

Joint Picnic a Success.

The joint picnic of the Marion, Genoa and Howell Farmers' Clubs, at Gregory's Grove, drew a good sized crowd and was very enjoyable. A bounteous dinner at noon was a pleasant feature, of course. In the afternoon, A. M. Wells presided for the program, which was a good one thruout. R. D. Roche gave the address. A ball game, boating and general visiting were in order in the afternoon.

ONE GOOD TURN Tell your neighbor of our great trial offer to January 1 for only 10 cents.

GRANGE

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

THE SEPTEMBER PROGRAMS.

State Lecturer's Suggestions for First Meeting.

Power on the farm and in the home, water, horse, windmill and engine. Presented by a man, discussion led by a woman.

Live stock as a factor of successful agriculture.

Reading of a favorite poem, by the chaplain.

Preparation for the fall fairs.—1. Definite details to be looked after by exhibitors.

2. Definite items to be looked for and studied by spectators.

(Assign a man and woman to each sub-topic).

Entertainment features furnished by boys and girls who are going away to school this fall.

THE POMONA GRANGE PROGRAM.

Mrs. Anna R. Doyle, lecturer of Antrim County Pomona, recently favored the writer with a program of their Pomona Grange meeting and rally to be held this month. There are some features of this program which I desire to notice in this connection. First, the subjects are appropriate and timely. Second, the parties chosen to handle them are fully competent. Third, the work is so distributed as to insure a good attendance from all Granges not too remote from the place of meeting. A reception committee has been appointed to welcome all visitors and so far as I can discover the little details that contribute so largely to the success of any meeting have not been overlooked. One feature of the program is the exemplification of the third degree by a team belonging to the entertaining Grange.

The motive in mentioning this program is not, primarily, to extol Antrim County Pomona. We have designed, rather, that it should serve as a text from which we would write our convictions of what the Pomona Grange ought to be in a general way along the line of its literary work.

The Pomona Master should be a good presiding officer. He should be watchful, tactful and not a bit afraid of work. But after he has done his best, the Pomona will fail to accomplish its object if the lecturer has not done her part. The Pomona Grange program is the one great feature upon which the success of this organization rests. The subjects should be timely to create the largest possible interest. They should be practical in order that the time spent in discussing them may be wisely employed. For example, the management of a winter dairy is not a good topic for a May meeting, and farming in the Argentine Republic need not be discussed at great length until more of the problems on Michigan farms have been satisfactorily solved.

The right persons should be selected to handle the subjects on the program. It is the mission of the subordinate Grange to discover and bring out the talent in the community where it is located. That many of those placed upon the subordinate Grange program should fail is inevitable. That many others should do poorly is but to be expected, for the subordinate Grange is the primary room in the Grange school. Its mission is in part to do a great deal of preparatory work. Here, the diffident member who hitherto has been unable to talk or even think while standing upon his feet in the presence of others, overcomes his bashfulness. Here the man who has farmed thus far without a plan, learns the value of crop rotation, and the discouraged one gets a new inspiration and discovers larger possibilities in the fields he has hitherto tilled with unsatisfactory results. Here subjects pertaining to the home, and question of importance to the neighborhood, are discussed. Here great national questions are handled—sometimes, it is true, by those who know little about them, but there is generally someone among the members who is able and willing to correct errors and, even the conclusions temporarily arrived at are erroneous, the work is always worth doing.

But the work of the Pomona is different. Only those who are fully competent should be assigned places on a Pomona Grange program. It is neither a kindness to the individual nor fair to those in attendance to place one on a program of this kind to discuss a question that he knows little about. The Pomona Grange should command the very best talent in

the county in which it is located. Questions that strengthen public sentiment along desired lines need to be ably discussed. The best music obtainable should be provided for these occasions. The program should be of such a character that people will look forward to it for weeks and plan to attend the meeting. Such a program will make the Pomona of great service as a moulder of public opinion in the community.

But, again, the exemplification of the degrees of the subordinate Grange by competent degree teams should frequently form a part of the Pomona program. The object of degree work is to reveal the Grange to the candidate, and it should be well done. In one year, under a splendid system of supervision, the Granges of Michigan accomplished more in degree work than could have been done in a decade without special effort. It is the privilege of the Pomona to gather up and conserve all the forces that tend to strengthen the organization and make it answer its purpose in the world. W. F. TAYLOR.

MEETING OF MICHIGAN'S LARGEST POMONA.

Charlevoix Pomona, the largest Pomona Grange west of Pennsylvania, met with Maple Grove Grange, Thursday, August 12. About 100 Patrons were in attendance from all parts of the county. The Grange was called to order in the degree of Pomona by Worthy Master Ward in the forenoon and immediately after organization a recess was taken for dinner. On reassembling the different committees were appointed, after which the lecturer's program was taken up. Bro. E. E. Stroud, Master of Maple Grove, gave a hearty welcome which was responded to by Henry Black, treasurer of Pomona.

Bro. D. E. McClure, state speaker, was then introduced. He was at his best and kept the crowd laughing at his many stories which illustrated his splendid talk on the strength and weakness of organization.

The committee on Pomona Granges recommended the securing of traffic arrangements for the 500 Charlevoix Patrons who are going to State Grange and the holding of special meetings for the purpose of conferring the fifth degree. The committee on subordinate Granges recommended the use of special day programs. Reports of subordinate Granges showed the county's total membership to be about 900, with Grange property valued at \$11,000. South Arm Grange was declared the banner Grange of the county.

In the evening the degree of Pomona was conferred in full form on a class of 37 by the crack fifth degree team from Marion Center. Next meeting will be held with Pine Lake Grange in October, Worthy Master Hull being chosen as state speaker.

Maple Grove Grange, with which the meeting was held, is one of our newer Granges but has property valued at over a thousand dollars, located in one of the beauty spots of Northern Michigan, and is composed of hustlers, as was demonstrated by the splendid entertainment given Pomona in the way of good-fellowship, good music and good meals. August 28 this Grange will hold its second annual picnic, Bro. John A. Ketcham being the principal speaker.—Glenn M. DuBois.

AMONG THE LIVE GRANGES.

Peninsula Grange is trying the experiment of holding its summer and fall meetings at the homes of members rather than in its hall as it is believed that in this way a better attendance can be secured during this busy season, which is more than usually busy for people in the fruit sections.

Maplewood Grange.—A Grange of 32 members was organized Aug. 18 at the Fuhrman school, Delta Co., by State Deputy Wilde. The following are the officers: Master, S. S. Snell; overseer, Joseph Schultz; lecturer, Clara Snell; steward, Lowell Thibault; ass't steward, Edward Fuhrman; lady ass't steward, Rose Thibault; chaplain, Sarah Schultz; treasurer, Geo. Fuhrman, Sr.; secretary, James Snell; gate keeper, Robert Snell; Ceres, Edna Snell; Pomona, Mrs. J. Mero; Flora, Florence Fuhrman.

Grain Topics compose the program planned by Grand Traverse Grange for its Ceres meeting. They are stated as follows: The annual corn contest and the benefits that we are deriving from the same. Michigan vs. Illinois as a corn producing region. Does it pay for us to try to raise wheat? Grain crops other than corn and wheat. Grain farming vs. potato farming. Grain farming vs. fruit farming.

COMING EVENTS.

Pomona Meetings.

Western Pomona (Ottawa Co.) with Tallmadge Grange, Friday, Aug. 27. Emmet Co., with Pickerel Lake Grange, Friday, Sept. 24.

Kent Co., with Paris Grange, Wednesday, Oct. 27. Miss Ida Chittenden, state speaker.

Grand Traverse District Grange, with Silver Lake Grange in Monroe Center lodge hall, Wednesday and Thursday, Sept. 1 and 2.

Picnics and Rallies.

Charlevoix Co. Granges will hold second annual picnic with Maple Grove Grange, Saturday, Aug. 28.

MARKETS

DETROIT WHOLESALE MARKETS.

August 25, 1909.

Grain and Seeds.

Wheat.—The margin between the high and low prices for cash wheat was narrower last week than for the week before. Futures, on the other hand, showed more variation and did not respond to the same influences that the cash trade did. A bearish feeling has crept into the trading circles and so strong is it that there is no organized effort on the bull side of the trade to check the movement. Railroads leading from the spring wheat sections are preparing to move a big crop and every condition seems present to supply the long wanting market with the cereal. The shorts on Tuesday were a little excited, however, over reports of rain in the harvesting and threshing districts. Liverpool is not giving the deal much support. Reports from Michigan farmers who have threshed shows the yield to be about what was anticipated. One year ago the price for No. 2 red was 95c per bu. Quotations for the week are:

	No. 2	No. 1	No. 3	Red	White	Sept.	Dec.
Thurs.	1.08 1/2	1.08 1/2	1.05 1/2	1.08 1/2	1.06 1/2		
Fri.	1.08 1/2	1.08 1/2	1.05 1/2	1.08 1/2	1.06 1/2		
Sat.	1.08 1/2	1.08 1/2	1.05 1/2	1.08 1/2	1.06 1/2		
Mon.	1.07 1/2	1.07 1/2	1.04 1/2	1.06 1/2	1.05 1/2		
Tues.	1.07	1.07	1.04	1.06 1/2	1.05 1/2		
Wed.	1.07	1.07	1.04	1.06 1/2	1.05 1/2		

Corn.—There has been little news to disturb conditions in the corn belt. Rains aided the growing crop in many sections and but few places are suffering from drought or excessive moisture. The demand and supply kept prices on last week's basis and the movement of grain is small. One year ago the price for No. 3 corn was 49 1/2c per bu. Quotations for the past week are:

	No. 3	Yellow
Thursday	71 1/2	73 1/2
Friday	71 1/2	73
Saturday	71 1/2	73
Monday	71 1/2	73
Tuesday	72	73 1/2
Wednesday	72	73 1/2

Oats.—Many farmers are complaining that the yield from their oat fields is not as large as was promised, altho this condition may not be generally true. Despite the fact that threshing time is at its height over a large section of the oat producing part of the land, and that prices are holding so well, it is almost certain that from the best information, the crop will support high prices for another season. Last year at this time we were paying 49 1/2c per bushel for No. 3 oats. Quotations are as follows:

	No. 3	White	Sept.
Thursday	40	39 1/2	
Friday	40	39 1/2	
Saturday	40	39	
Monday	39	38	
Tuesday	39	38	
Wednesday	39	38	

Beans.—An excellent crop of beans is growing, but it will take a good harvest to replenish the supply, since the last crop was a short one. There is no trading to speak of and nominal quotations for cash goods have dropped a nickle during the week. October continues at the price reported a week ago. Prices for the week are:

	Cash	Oct.
Thursday	\$2.25	\$2.00
Friday	2.20	2.00
Saturday	2.20	2.00
Monday	2.20	2.00
Tuesday	2.20	2.00
Wednesday	2.20	2.00

Cloverseed.—The approach of hulling season has caused prices to take a dip downward—a decline of about 15c being noted during the past week. Prime alsike is selling around \$7.60 per bu. Quotations for the week are:

	Oct.	March
Thursday	\$7.35	\$7.40
Friday	7.40	7.45
Saturday	7.30	7.35
Monday	7.20	7.25
Tuesday	7.25	7.30
Wednesday	7.25	7.50

Rye.—A moderate demand and a good supply has lowered values. But trade is steady at the decline. Cash No. 1 is selling at 68c per bu., which is 2c below last week's price.

Visible Supply of Grain.

	This week.	Last week.
Wheat	8,584,000	8,283,000
Corn	2,243,000	2,124,000
Oats	3,413,000	2,442,000
Rye	173,000	154,000
Barley	108,000	205,000

Flour, Feed, Provisions, Etc.

Flour.—Market active, with prices 40c to 50c lower than a week ago. Quotations are as follows:

Clear	\$5.25
Straight	5.40
Patent Michigan	5.85
Ordinary Patent	5.50

Hay and Straw.—Market for both hay and straw is unchanged. Carlot prices on track are: No. 1 timothy, new \$13@14; No. 2 timothy, \$12@13; clover, mixed, \$11@12; rye straw, \$7; wheat and oat straw, \$6 per ton.

Feed.—Bran and coarse middlings are lower. Bran, \$25 per ton; coarse middlings, \$26; fine middlings, \$30; cracked corn, \$30; coarse corn meal, \$30; corn and oat chop, \$28 per ton.

Potatoes.—Market is being quite well supplied with home-grown tubers. Supply fair and demand good, with prices ranging from 60@65c per bu.

Provisions.—Family pork, \$21.50@22.50; mess pork, \$21.50; light short clear, \$21; heavy short clear, \$22.50; pure lard, \$13 1/2c; bacon, 15@16c; shoulders, 11c; smoked hams, 14c; picnic hams, 11c.

Dairy and Poultry Products.

Butter.—What happened this past week

in the creamery butter deal has been expected by dealers. The production is not as large as usual and the demand continues brisk. Dairy butter, also, enjoyed an advance. Quotations are: Extra creameries, 28c; firsts, 27c; dairy, 21c; packing stock, 20c per lb.

Eggs.—Values have not shifted, leaving the market unchanged and steady with last week's quotation maintained. Fresh firsts, case count, cases included, are quoted at 22c per doz.

Poultry.—There is not a great deal of activity in poultry trading just now and prices remain on the same basis as a week ago. Quotations are: Hens, 13 1/2c; roosters, 9@10c; ducks, 10@15c; geese, 8@9c; turkeys, 16@17c; broilers, 16@17c.

Cheese.—Steady. Michigan full cream, 15@16c; York state, 16 1/2c; Limburger, 16 1/2c; schweitzer, 20c; brick cream, 16 1/2c per lb.

Calves.—Choice to fancy, 10@11c; ordinary, 9@10c per lb.

Fruits and Vegetables.

Cabbage.—Lower. Home-grown, \$1 per bbl.

Tomatoes.—Declined and now selling at \$40@50c per bu.

Onions.—Domestic offerings, \$2 per bbl; Spanish, \$1.50 per crate.

Pears.—Bartlett, \$1.25@1.50 per bu; common, 75c@\$1.

Grapes.—Delaware, 40c; Niagara, 35c; Concord, 30c per pony basket.

Apples.—Home growth, 85c@\$1 per bu.

Peaches.—Michigan grown, baskets, \$1 @1.75; pecks, 25@30c.

Blackberries.—Lower at \$2@2.50 per bu.

Huckleberries.—Higher, \$3.50@3.75 per bushel.

Vegetables.—Beets, 75c per bu; carrots, 75c per bu; cauliflower, \$1.25 per doz; cucumbers, 15@20c per doz; eggplant, \$1.25@1.50 per doz; green beans, 75c per bu; green onions, 12 1/2c per doz; green peppers, 75c per bu; lettuce, 50c per bu; mint, 25c per doz; parsley, 25@30c per doz; radishes, 8@10c per doz; spinach, 60c per hamper; summer squash, 50c per box; watercress, 25@50c per doz; wax beans, \$1 per bu.

OTHER MARKETS.

Grand Rapids.

No radical changes are noted in the grain market this week. Wheat is off 1c, oats 1c, while No. 2 yellow corn has advanced 3c. In dairy products, creamery butter went up 1 1/2c, dairy 1c. The egg market is unchanged. While dressed hogs remain at 10@10 1/2c, the market is easier. Spring ducks are off 2c. First early Crawford peaches have arrived, selling at \$1.50. First plums are also in, ranging from \$1@1.50. Early apples are selling for 50@85c, Dutchess bringing the outside price. Home-grown muskmelons are bringing \$1.25@1.50 per bu. Tomatoes were higher, bringing 90c@\$1. Seeds are weaker, alsike now retailing at \$9, while clover is off to \$7.80. Potatoes are selling around 60c.

Quotations follow:
Grains.—Wheat, \$1.01; oats, 39c; corn, 75c; busk wheat, 55c per bu; rye, 60c.
Beans.—Machine screened, \$1.90.
Butter.—Buying prices, Dairy, No. 1, 22@23c; creamery in tubs, 28c; prints, 27@28 1/2c per lb.

Eggs.—Case count, 21@22c.
Potatoes.—60c per bu.
Peaches.—\$1.25@1.50 per bu.
Huckleberries.—\$1.75; blackberries, \$1.25; apples, 50@85c.

Vegetables.—Tomatoes, 90c@\$1 per bu; sweet corn, 10c doz; cabbage, 25@30c doz.

Cattle.—Cows, \$2.50@4 per cwt; steers and heifers, best quality, 3@5 1/2c; dressed mutton, 9@10c; dressed veal, 6@9c; dressed beef, cows, 5@6 1/2c; steers and heifers, 7 1/2@9 1/2c.

Hogs.—Dressed, 10@10 1/2c.
Live Poultry.—Fowls, 10@12c; roosters, 7@8c; turkeys, 14@15c; spring chickens, 14@16c; spring ducks, 11@12c.

Chicago.

Wheat.—No. 2 red, \$1.03@1.05; Sept., 97 1/2c; December, 94 1/2c; May, 98 1/2c.
Corn.—No. 2, 69@71c; Sept., 66 1/2c; December, 56 1/2c.

Oats.—No. 3 white, 36@37 1/2c; Sept., 36 1/2c; December, 36 1/2c.

Butter.—Stronger and higher. Creameries, 24@28c; dairies, 21 1/2@25 1/2c.

Eggs.—Higher with fresh firsts, case count cases included, 22c per doz.

New York.

Butter.—Firm and higher. Western factory firsts, 20@22c; creamery specials, 29@29 1/2c.

Eggs.—Irregular. Western first to extras, 22@25c; seconds, 20@21c.

Poultry.—Dressed. Higher butt quiet. Western broilers, 15@21c; fowls, 16 1/2@17 1/2c per lb. Live.—Steady. Western chickens, 18@19c; fowls, 17@17 1/2c.

Grain.—Wheat, No. 2 red, \$1.07 per bu; corn, No. 2, 81c for old; oats, mixed, 42@48c for new.

Boston.

Wool.—The outlook for the woolen fabric trade is very promising and manufacturers are scouting for raw material to keep up with the demand. The amount of trading the past week was heavy and prices continue firm. The following are the leading market quotations: Ohio and Pennsylvania fleeces—XX, 35@36c; X, 33@34c; No. 1 washed, 40@41; No. 2 washed, 40@41c; fine unwashed, 27@28c; half blood, 35@36c; three-eighths blood combing, 35@36c; quarter blood combing, 34@35c; delaine washed, 39@40c; delaine unwashed, 33@34c. Michigan, Wisconsin and New York fleeces—Fin., unwashed, 25@26c; delaine unwashed, 31@32c; half blood unwashed, 34@35c; three-eighths blood unwashed, 34@35c; quarter blood, 33@34c. Kentucky, Indiana and Missouri—Three-eighths blood, 34c; quarter blood, 32@33c.

Elgin.

Butter.—Market firm at 28c per lb., which is an advance of 1 1/2c over last week's price. Sales for last week amounted to 83,400 lbs., compared with 939,200 lbs. for the previous week.

THE LIVE STOCK MARKETS.

Buffalo.

August 23, 1909.
(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, 9,600; sheep and lambs, 8,000; calves, 1,200.

The cattle market today was fairly active and the best cattle on the market sold steady at last week's prices. Butcher cattle sold from 10@15c higher and stockers from 25@30c higher than last week. The best fresh cows and springers sold about \$2 per head higher.

We quote: Best export steers, \$6.50@6.75; best 1,200 to 1,300 lb. shipping steers, \$5.85@6.10; best 1,100 to 1,200 lb. do., \$5.60@5.85; medium 1,050 to 1,150 lb. steers, \$5@5.25; light butcher steers, \$4.50@4.75; best fat cows, \$4.50@5; fair to good, \$3.75@4; light cows, \$3@3.25; trimmers, \$1.75@2; best fat heifers, \$5@5.50; fair to good, \$4.50@4.75; common, \$3.75@4; best feeding steers, 800 to 900 lb. dehorned, \$4.50@4.75; 700 to 750 lb. dehorned stockers, \$3.75@4; light stockers, \$3.25@3.50; best bulls, \$4@4.50; bologna bulls, \$3.50@3.75; stock bulls, \$3@3.25; best fresh cows and springers, \$47@57; fair to good do., \$30@40; common, \$20@25.

The hog market opened fairly active on all the good grades but slow and draggy on the common kinds. The good hogs are all sold but there is some common stuff unsold. We would advise caution in buying grassy hogs.

We quote: Medium and heavy, \$8.45@8.55; mixed, \$8.40@8.45; best yorkers, \$8.35@8.40; light yorkers and pigs, \$8.25@8.30; roughs, \$7.10@7.15; stags, \$5.75@6.25.

The lamb market today was active and everything is sold. We think the prospects steady for the balance of the week.

We quote: Best lambs, \$7.65@7.85; fair to good, \$6.50@7.60; culls, \$5.25@5.75; skin culls, \$4@4.75; yearlings, \$5.25@5.50; wethers, \$5@5.10; ewes, \$4.40@4.75; cull sheep, \$2@3.25; best calves, \$9.50@9.75; fair to good, \$7@9; heavy, \$4@5.

Chicago.

August 23, 1909.
Cattle. Hogs. Sheep.
Received today 23,000 30,000 28,000
Same day last year, 31,183 25,961 27,230
Received last week, 51,992 88,703 110,912
Same week last year, 52,489 95,928 91,002

Cattle were marketed quite freely last week, with supplies consisting to a great extent of plain to pretty good steers and on Monday and Wednesday, much the biggest days, good supplies of good to choice steers, but buyers would have been better pleased if receipts of western range cattle had been on a larger scale. The most striking feature was the stiff advance of strictly prime heavy beefs, with two transactions at \$7.80, or 25c higher than any trade of the previous week. Thus the long predicted advance in choice corn-fed beefs has taken place, and a rise to \$8 is being talked of now. The poorer grassy native steers sold at \$4.02@5.10, and the course of prices for all except really good fat cattle was in a downward direction. In fact, after Monday even very good cattle sold at 10@15c lower figures. Cows and heifers went at \$3.30@6, a few selling at \$6.25@6.50 and firmness confined to good lots. Canners and cutters sold at \$2@3.25, and bulls declined sharply, going slowly at \$2.50@5. Calves were active and still higher, selling at \$3.50@9. The demand for stockers and feeders was better, and prices advanced largely 10@20c under limited offerings of good cattle, sales ranging at \$2.75@5.25. Stockers of superior quality that averaged 742 lbs. brot \$4.60. Wyoming range cattle sold up to \$6.25, being fully 35c higher than such steers brot a week earlier. Range steers sold all the way down to \$4.50, while range cows and heifers were taken freely at \$3.40@5.50. Prospects are better for range cattle than for native grass-fed stock, and feeders are bound to sell higher.

Cattle were in good supply and demand today, (Monday), the receipts embracing about 4,000 range cattle from the northwest. Good cattle were active at steady prices, but others were slow and largely 10c lower.

Hogs were marketed so sparingly most of last week that prices were usually kept advancing, despite the efforts of packers to hold them down. Eastern shippers were much smaller buyers than usual, taking less than 6,000 hogs Monday and far less other days, while local buyers satisfied their wants by purchasing the cheaper grade of heavy packing swine. Hogs went at the highest prices seen in this time for years, and it was interesting to recall the fact that thirteen years ago sales were made at \$2.55@3.37 1/2. The range of prices has been contracting, and the average price has risen to the highest point in three weeks, with rather light weights selling the highest. The recent receipts have averaged in weight 231 lbs., compared with 226 lbs. a year ago and 250 lbs. two years ago. Pork has had sensational advances, and packers were good buyers. Hogs should be marketed whenever ready to come, but pigs should be fattened, for the big corn crop means lower prices for feed. A large part of the hogs go for the fresh meat trade, which is very large. Today's market was 5c higher, and the best went 7 1/2c higher. Sales were at \$7.25@8.20.

Range lambs came forward for the first half of last week with a rush, about 63,000 sheep and lambs showing up Monday and Tuesday, and there was such a big break in prices that by Thursday receipts underwent a big falling off. Receipts came largely from the ranges, with Idaho furnishing the principal share, and the percentage of sheep and yearlings was so small that they failed to sell off much. In fact, on Wednesday only two lots of yearlings were offered. More range lambs have arrived this year than in the same period last year, and plenty remain to come, but much lower prices would

cause many flocks to be held back. Some of the feeder lambs from the range were much poorer in quality than previous offerings and sold slowly at much lower prices. Lambs declined during the week 50@75c. Today's market was active at steady prices, lambs being salable at \$4@7.65, with feeders at \$6@6.75. Wethers were salable at \$4.50@5, ewes at \$2@4.50, rams at \$2@4, and yearlings at \$4.75@5.50. Breeding ewes went at \$4.25@6, feeding wethers at \$4.45@4.65 and feeding yearlings at \$4.75@5.35.

Horses are as active as could be expected during the latter part of August, with a better demand than that of a year ago, but trade is hampered by moderate offerings of desirable kinds. Before long the fall trade will open, and better prices are looked for. There is an active inquiry for choice feeders at \$165@225 per head, several Illinois dealers competing with eastern buyers. More activity is seen in small southern chunks at unevenly higher prices, sales ranging at \$60@110 and upward.

Michigan State Fair
Detroit, Mich.
SEPT. 2-10

Great Educational Exhibit.

No farmer can afford to miss this great show, where the best products of farm and factory will be shown in profusion.

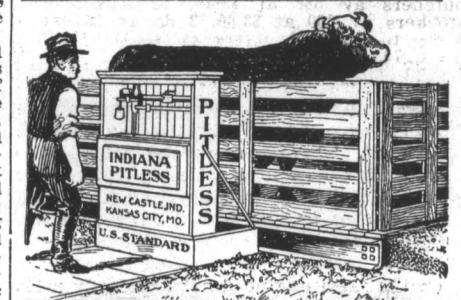
The best live stock and the choicest products of the soil will be on exhibition and will afford unequalled opportunities for study and comparison, while the exhibits of farm machinery will be larger than ever, and most of it can be seen in operation.

Choice Entertainment Features.

The free entertainment features offered will also be of a high class, including the best of racing programs, a grand exhibition race between the world's two fastest harness horses, air ship races every day, the choicest music, and a grand evening entertainment which will close with magnificent fireworks.

Take a Needed Holiday.

It will prove a relief from the hard work of the summer. Bring your family with you; they need the change. Bring the boys and girls, it will give them an inspiration and help to keep them on the farm. COME NOW! Throw off farm cares for a day or two and enjoy yourselves. Railroad rates will be low and you can see Detroit as well. COME ON.

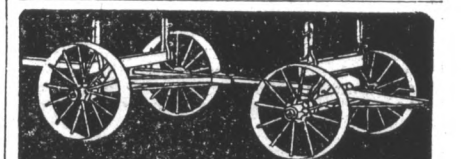


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Department 10, Kansas City, Mo. Station A.



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Several hundred thousand farmers say that the best investment they ever made was when they bought an

Electric Handy Wagon

Low wheels, wide tires; easy work, light draft. We'll sell you a set of the best steel wheels made for your old wagon. Spoke united with hub, guaranteed not to break nor work loose. Send for our catalogue and save money. ELECTRIC WHEEL CO., Box 58, Quincy, Ill.

STUMPS—Farmers having stumps and stones to blast should write for prices on dynamite, caps and fuse. Meredith Powder Co., Richmond, Ind.

THIS IS THE LAST 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.
August 26, 1909.

Cattle.
Receipts, 693. Market 5@10c higher on all grades.

We quote: Dry-fed steers, \$5.50@5.65; steers and heifers, 1,000 to 1,200, \$4.25@4.75; steers and heifers, 800 to 1,000, \$3.75@4.25; grass steers and heifers that are fat, 800 to 1,000, \$3.75@4.25; grass steers and heifers that are fat, 500 to 700, \$3.25@3.50; choice fat cows, \$3.75@4.50; good fat cows, \$3.25@3.50; common cows, \$2.50@3; canners, 1.50@2; choice heavy bulls, \$3.50@3.75; fair to good bolognas, bulls, \$3.25; stock bulls, \$2.50@3; choice feeding steers, 800 to 1,000, \$4@4.35; fair feeding steers, 800 to 1,000, \$3.50@4; choice stockers, 500 to 700, \$3.50@3.75; fair stockers, 500 to 700, \$3@3.35; stock heifers, \$3; milkers, large, young, medium age, \$4@6; common milkers, \$2.50@3.50.

Roe Com. Co. sold Smith 3 bulls av 1,090 at \$3.50, 1 do weighing 880 at \$3.25; to Sullivan P. Co. 2 do av 1,260 at \$3.60; to Rattkowsky 4 butchers av 760 at \$4, 1 heifer weighing 430 at \$3; to Schlischer 2 butchers av 730 at \$3.50, 3 do av 566 at \$3; to Goose 1 cow weighing 1,100 at \$3.50; to Rattkowsky 3 butchers av 710 at \$3.60; to Sullivan P. Co. 1 bull weighing 1,060 at \$3.50, 6 butchers av 650 at \$3.50; to Mich. B. Co. 3 cows av 1,166 at \$4, 2 do av 1,000 at \$3.50, 2 do av 1,035 at \$3.50, 19 butchers av 925 at \$4.25, 20 do av 811 at \$4.15; to Sullivan P. Co. 15 do av 740 at \$3.75; to Thompson 11 do av 700 at \$3.75; to Newton B. Co. 13 steers av 1,180 at \$5.65.

Bishop, B. & H. sold to Mich. B. Co. 13 butchers av 870 at \$3.80; to Goose 3 do av 386 at \$3, 2 cows av 900 at \$2.50, 3 heifers av 423 at \$3; to Austin 4 stockers av 605 at \$3.40, 7 do av 604 at \$3.40, 7 do av 643 at \$3.65; to Bresnahan 2 do av 675 at \$3.50; to Smith 3 bulls av 1,016 at \$3.75, 1 do weighing 820 at \$3.25; to Bresnahan 5 heifers av 550 at \$3.50; to Markowitz 9 steers av 1,075 at \$4.50, 1 do weighing 1,150 at \$4.50; to W. Smith 3 bulls av 1,016 at \$3.75; to Newton B. Co. 2 cows av 710 at \$2, 11 steers av 960 at \$4.75, 3 cows av 890 at \$3.75; to Bresnahan 2 stockers av 510 at \$3.25; to Regan 14 butchers av 586 at \$3.40; to Austin 4 stockers av 660 at \$3.60, 3 do av 666 at \$3.25; to Cooke 5 steers av 886 at \$5, 2 do av 795 at \$4.25; to Goose 2 butchers av 610 at \$2.50; to Thompson 9 do av 944 at \$3.70.

Spicer, M. & R. sold Goose 2 bulls av 426 at \$3; to J. W. Smith 10 feeders av 882 at \$3.90, 2 bulls av 665 at \$3.15, 1 do weighing 960 at \$3.50; to Regan 5 heifers av 464 at \$3.25; to Dombitke 2 butchers av 585 at \$3.40, 13 do av 583 at \$3.25; to Caplis 1 cow weighing 780 at \$2.60, 1 heifer weighing 700 at \$3.75, 10 butchers av 663 at \$3.50; to McDonald 3 stockers av 616 at \$3.60, 2 do av 440 at \$3.25, 4 do av 690 at \$3.50; to Mich. B. Co. 3 steers av 690 at \$4, 7 cows av 940 at \$3.50; to Rattkowsky 2 do av 950 at \$3; to Thorborn 13 stockers av 602 at \$3.60. Sharp sold Thompson 3 butchers av 853 at \$4.

Long sold Kamman 4 butchers av 805 at \$4.20.

Haley sold Schlischer 2 bulls av 700 at \$3, 2 cows av 850 at \$3.10, 15 butchers av 576 at \$3.55.

Lewis sold Gerish 19 butchers av 855 at \$4.40.

Waterman sold Marx 11 butchers av 910 at \$4.15.

Robb sold Mich. B. Co. 2 cows av 900 at \$4.25, 2 heifers av 765 at \$3, 11 butchers av 911 at \$4.

Johnson sold Regan 3 heifers av 506 at \$3.50.

Same sold Gerish 9 steers av 832 at \$4.40.

Haley sold same 4 steers av 790 at \$3.90.

Haley sold Sullivan P. Co. 9 butchers av 760 at \$3.75.

Long sold same 2 bulls av 1,005 at \$3.50, 2 do av 650 at \$3.60.

Waterman sold same 2 cows av 990 at \$3.30.

Same sold Gerish 3 steers av 1,100 at \$5.10.

Veal Calves.
Receipts, 387. Good calves \$1@1.50 higher than last week. Best, \$9@10; others, \$5@8.50; milch cows and springers steady.

Bishop, B. & H. sold Parker, W. & Co. 15 av 160 at \$8.50; to Goose 2 av 175 at \$4; to Austin 7 av 155 at \$8.50; to Hammond, S. & Co. 8 av 145 at \$9.25; to Fitzpatrick Bros. 2 av 260 at \$6, 9 av 140 at \$9; to Parker, W. & Co. 2 av 185 at \$10, 1 weighing 220 at \$9.50; to Friedman 2 av 125 at \$9; to Newton B. Co. 9 av 145 at \$8.75; to Fitzpatrick Bros. 9 av 160 at \$9; to Parker, W. & Co. 14 av 155 at \$9.50, 22 av 180 at \$8.50.

Spicer, M. & R. sold Mich. B. Co. 3 av 155 at \$8, 2 av 205 at \$4, 1 weighing 220 at \$5.50, 5 av 160 at \$8.25, 2 av 125 at \$8.95; to Goose 2 av 255 at \$6; to Mich. B. Co. 2 av 220 at \$5.25, 7 av 145 at \$9, 3 av 150 at \$9, 1 weighing 220 at \$5.25; to McGuire 8 av 150 at \$9.

Johnson sold Mich. B. Co. 2 av 115 at \$7.50.

Sharp & W. sold Sullivan P. Co. 7 av 140 at \$8.

Clark & McK. sold same 8 av 150 at \$8.50.

Waterman sold Burnstine 9 av 160 at \$8.50.

Snyder sold same 9 av 155 at \$8.75.

Groff sold Newton B. Co. 9 av 150 at \$9. Roe Com. Co. sold Hammond, S. & Co. 10 av 146 at \$8.50, 1 weighing 110 at \$6, 2 av 120 at \$6, 4 av 150 at \$7.50; to Mich. B. Co. 7 av 155 at \$8.50; to Hammond, S. & Co. 11 av 170 at \$9. Haley sold Newton B. Co. 11 av 170 at \$4.50.

Cheney & H. sold same 15 av 150 at \$8.25.

Wagner & A. sold Kamman B. Co. 11 av 150 at \$8.

Sheep and Lambs.
Receipts, 2,397. Market active and 25c higher than last week.

Best lambs, \$6.75@7; fair to good lambs, \$6.50; light to common lambs, \$5@5.50; yearlings, \$5; fair to good sheep, \$4@4.25; culls and common, \$2.50@3.25.

Bishop, B. & H. sold Mich. B. Co. 21 sheep av 80 at \$3, 47 do av 90 at \$4; to Parker, W. & Co. 78 lambs av 65 at \$6.25; to Young 26 do av 65 at \$6.25; to Hammond, S. & Co. 7 do av 85 at \$7, 25 sheep av 90 at \$4; to Sullivan P. Co. 41 lambs av 65 at \$6.50, 25 do av 60 at \$6.50, 35 do av 70 at \$6.50; to Mich. B. Co. 17 sheep av 110 at \$4.50; to Newton B. Co. 4 do av 80 at \$4, 38 lambs av 80 at \$6.75; to Sullivan P. Co. 82 do av 65 at \$6.75; to Fitzpatrick Bros. 24 do av 75 at \$6.50; to Hertler 60 do av 50 at \$6.

Spicer, M. & R. sold Mich. B. Co. 15 sheep av 90 at \$4, 71 lambs av 75 at \$7; to Newton B. Co. 15 do av 50 at \$5, 85 do av 65 at \$6.50; to Hammond, S. & Co. 8 sheep av 125 at \$4.25; to Mich. B. Co. 21 lambs av 65 at \$6.50.

Wagner & A. sold Sullivan P. Co. 65 lambs av 75 at \$6.50.

Clark & McK. sold same 20 do av 65 at \$6.50.

Haley sold Newton B. Co. 5 lambs av 60 at \$5, 1 sheep weighing 190 at \$3, 35 lambs av 75 at \$6.50.

Same sold Fitzpatrick Bros. 32 lambs av 60 at \$5.50, 1 buck weighing 180 at \$2.50, 35 sheep av 80 at \$4.10.

Lewis sold same 4 do av 100 at \$4.25, 5 do av 115 at \$3.50, 10 lambs av 68 at \$6.25.

Chase sold same 13 av 70 at \$6.50.

Haley sold Thompson 43 sheep av 75 at \$4.

Clark & McK. sold same 9 do av 105 at \$4.

Roe Com. Co. sold Hammond, S. & Co. 14 sheep av 90 at \$4.75, 11 do av 120 at \$4.25, 2 do av 100 at \$2.50; to Caplis 23 lambs av 60 at \$6.25; to Stoker 26 do av 60 at \$5.50.

Johnson sold Mich. B. Co. 10 sheep av 133 at \$3.50, 21 do av 70 at \$4.90, 119 lambs av 75 at \$6.30.

Hogs.
Receipts, 2,437. Market steady at last week's prices.

Range of prices: Light to good butchers, \$7.90@8.10; pigs, \$7.25@7.65; light yorkers, \$7.70@8; stags, 1/2 off.

Bishop, B. & H. sold Parker, W. & Co. 38 av 150 at \$7.80, 269 av 153 at \$7.85, 157 av 145 at \$7.70, 304 av 160 at \$7.90, 693 av 180 at \$8, 188 av 190 at \$8.10.

Spicer, M. & R. sold same 49 av 180 at \$8.

Bishop, B. & H. sold Sullivan P. Co. 20 pigs av 90 at \$7.25, 33 do av 100 at \$7.50, 50 do av 110 at \$7.60.

Roe Com. Co. sold same 81 av 190 at \$8, 180 av 190 at \$7.90, 109 av 165 at \$7.80, 49 av 130 at \$7.35.

Spicer, M. & R. sold same 30 av 175 at \$8, 88 av 200 at \$8.15, 37 av 200 at \$8.20, 43 av 165 at \$8.15.

Spicer, M. & R. sold Youngs 109 av 170 at \$7.75, 23 av 200 at \$8.

Sundry shippers sold Hammond, S. & Co. 120 av 188 at \$8, 70 av 177 at \$8.

Friday's Market.
August 20, 1909.

Cattle.
There was a fair run of cattle on sale for Friday at the Michigan Central yards when the market opened and all grades sold full steady with Thursday, a few good heavy steers bringing \$5.50. Milch cows and springers were also steady.

Haley sold same 2 bulls av 1,030 at \$3.50, 2 cows av 900 at \$2, 2 do av 775 at \$2.

Spicer, M. & R. sold same 1 do weighing 1,150 at \$5, 1 steer weighing 1,040 at \$5.50.

Roe Com. Co. sold Kamman, B. Co. 3 butchers av 900 at \$3.75, 2 do av 740 at \$3.25, 5 do av 510 at \$3.

Bishop, B. & H. sold same 4 cows av 900 at \$3.25.

Spicer, M. & R. sold same 5 butchers av 792 at \$4, 1 cow weighing 880 at \$3, 1 steer weighing 800 at \$4, 1 do weighing 860 at \$4, 2 cows av 930 at \$3.25, 4 butchers av 870 at \$4.15.

Roe Com. Co. sold Stabler 3 stockers av 536 at \$3.25.

Bishop, B. & H. sold same 5 feeders av 906 at \$3.90.

Sheep and Lambs.
The sheep and lamb trade was dull at Thursday's prices. The quality was very common and bulky lambs are unsalable at any price.

Roe Com. Co. sold Hertler 49 lambs av 60 at \$6, 11 do av 45 at \$5.

Same sold Erban 11 sheep av 70 at \$4.85.

Haley sold same 11 lambs av 58 at \$5.25.

Roe Com. Co. sold same 43 lambs av 70 at \$6.

Roe Com. Co. sold Mich. B. Co. 10 sheep av 126 at \$3.75.

Spicer, M. & R. sold same 9 do av 65 at \$4, 1 buck weighing 130 at \$2.50, 7 sheep av 77 at \$2.25, 8 do av 93 at \$3.50.

Haley sold Hammond, S. & Co. 1 buck weighing 100 at \$2.50, 2 sheep av 110 at \$4, 4 do av 145 at \$3.75.

Hogs.
The hog trade was active and steady. Thursday's prices were paid for all grades. Light to good butchers, \$8@8.25; pigs, \$7@7.50; light yorkers, \$7.25@7.75.

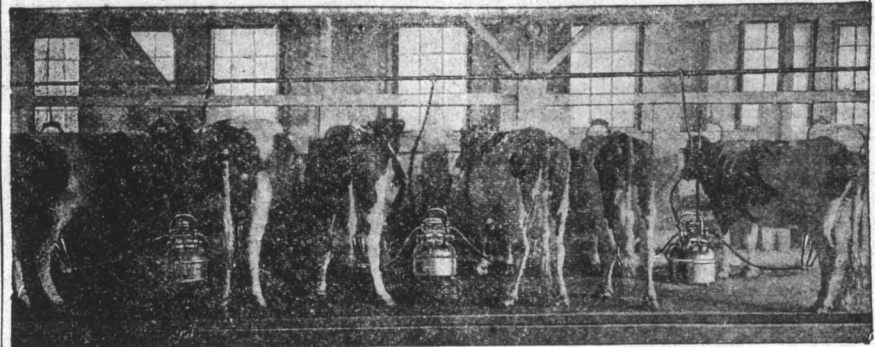
Roe Com. Co. sold Hammond, S. & Co. 6 av 170 at \$8.

Spicer, M. & R. sold same 67 av 160 at \$7.75, 34 av 150 at \$7.90, 74 av 175 at \$8.10.

Bishop, B. & H. sold Parker, W. & Co. 132 av 175 at \$8, 89 av 185 at \$8.10, 32 av 160 at \$7.60.

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HOME AND YOUTH

JIMMY'S GET-AWAY.

BY HOWARD DWIGHT SMILEY.

"Say, Cully, wotcher in fer, anyhow?" The speaker, Red Kelly, a rough, middle-aged hobo, stood with his face pressed against the bars of his cell, gazing across the corridor.

Jimmy Graham, in the cell opposite, raised his head slowly and looked thru the bars at his questioner.

"Speaking to me?" he asked indifferently.

"Yep; I was askin' yer wotcher in fer," answered Red, rough but kindly.

Jimmy rose wearily from his cot and paced several times up and down the narrow confines of his cell before replying.

"As near as I can make out," he said finally, "I'm in because the stiff-necked Johnny Wise that the people of this county use for a judge, wouldn't give me a chance to explain myself. I was pinched for stealing a ride on a freight train."

"Hittin' the road, hey?" grinned the other delightedly. "Dat's wot dey got me in fer, too. De judge gimme ninety days, yesterday."

"I got six months," said Jimmy bitterly.

"Geel!" gasped Red, an expression of horrified surprise overspreading his face; "gee, dat's fierce, ain't it! Wot'd yer do, bust a seal?"

"No, I suppose the judge handed me the extra three months because I tried to tell him that I had a wife and baby to support, and was on my way to a job that had been promised me, in Jackson. He said that every hobo who had been before him since he became a judge had tried to spring that gag on him. Told me I was a liar and a common bum and then handed me the six months, saying he hoped it would be a lesson to me, and that perhaps I'd be willing to settle down and be decent when I got out. I've been in only ten days."

At this juncture the turnkey entered the corridor and handed a letter thru the bars to the young man. He then turned and began unlocking the cells for the purpose of letting the prisoners into the corridor for their daily exercise.

Jimmy seized the letter eagerly and quickly opened and read it. The contents were evidently of a startling nature, for he turned very pale and collapsed on his cot with a groan.

He was aroused a moment later by the voice of Red, who stood in the door of his cell, which the turnkey had unlocked and opened.

"Wot's de matter, pal?" he asked. "Git some bad news?"

Jimmy rose from his cot, thrust the letter into his trousers pocket and stepped out into the corridor. His face was still white and drawn, and he seemed to be almost at the point of bursting into tears.

"This is awful," he said, as they walked slowly down the corridor. "It's the limit. I've got to do something."

"Wot's de rip, anyway?" asked Red.

Jimmy slowly drew the letter from his pocket and handed it to his companion, who read it slowly and laboriously. It contained the following:

James Graham,
Care Collins County Jail,
Collins, Michigan.

Dear Sir:
I have been asked to inform you that your wife is very seriously ill, and practically destitute. Unless you are heard from at once she will be placed in the charity ward of the City Hospital and your child sent to the Foundlings' Home.

Yours truly,
SILAS CHURCH, M. D.

"Geel!" commented Red as he handed the letter back. "Dat's fierce, ain't it! Wot'd yer run off an' leave yere wife an' kid fer? A man wot's got a fam'ly oughter stay home an' take care o' 'em, 'stead o' hittin' de road."

"I had to go. I'd been out of work for four months and everything in Chicago dead, and no show of anything starting up. I have a friend who's foreman of a shop in Jackson, and I wrote him for a job and he wrote back that there was a steady one waiting me there if I could take it within ten days. I gave the wife all the money I had, which was barely enough to keep her and the kid until I could send her more, and as I was broke, I had to beat it. I got along all right until I reached this town, when that confounded constable discovered me in the empty and pinched me."

"Dis town's fierce fer pinchin' boes," commented Red. "Worse'n Godfrey."

"Well, it seems that I've got to do something," continued Jimmy desperately. "I can't stand it to think of Minnie being in the hospital and the kid in the foundlings home. What'll Min do when she comes out? She won't have a cent to live on, and will probably be too weak to work."

"Don't she know where yer is?"

"Oh, sure. I wrote her as soon as I could, and have had one letter from her. She's a game little girl, and said she'd try and get a job somewhere. But there's mighty few jobs in Chicago, just now, and now that she is sick she couldn't work if she did have one. It's awful."

"Tis fierce, ain't it," said Red sympathetically. "But keep yer head up, pal. Mebbe something will turn up. Yer can't never tell."

Just then the door at the end of the corridor, near which they were standing, opened and the turnkey entered with a prisoner. The latter was badly intoxicated, and the turnkey had to support and assist him along. He carelessly left the door unlocked and slightly ajar, and bundled his charge to the end of the corridor, where they turned into another and disappeared.

Both Jimmy and Red noticed the turnkey's carelessness. Jimmy shot a quick glance at his companion and then down the corridor. The other prisoners were walking about or standing in groups, talking, and none had noticed the turnkey's mistake.

Red nodded soberly. "You might make yer get-away," he whispered, "but it'll be risky. If dey ketch yer it'll mean a year."

Jimmy thot fast. It would probably be his only chance and he felt that he must do something for his family at once. In his present desperate state of mind he was ready to try almost anything, and he quickly made up his mind.

"I'm going to make a try for it," he whispered.

The other nodded silently and pressed his companion's hand. "I hope yer make it, an' good luck ter yer," he whispered as Jimmy turned to the door.

He stepped quickly thru and pulled it shut after him. He found himself in a long hall leading to the sheriff's office. The hall was empty, but he could hear voices in the office, and realized that he must be quick. Looking hastily about he discovered an iron door, close to his right, with the key in the lock.

Jimmy turned the key softly and pulled the door open slightly. It led him into the back yard of the jail, and Jimmy slipped out, gently closing the door behind him.

He dodged around the corner of the jail, ran between two long rows of cord wood, past a barn, and into an alley which he followed until he came to a street. He paused here for a second to note that the street was deserted and then dodged across the road and into a back yard.

He continued this for some distance, keeping to back yards and tumbling over fences until, finally reaching the outskirts of the town, he crossed a railroad track and ran diagonally thru a large field towards some woods. Reaching these he found himself on the bank of a large river, and turning down stream continued his flight, casting frequent glances over his shoulder to see if he were pursued.

He continued thus until he had put fully six miles between himself and the town of Collins, and then suddenly found his way blocked by a large swamp.

His first impulse was to go around this, but on second thought he waded straight into it. The water was not deep and he felt that the swamp would be an excellent place of concealment. He was without hat or coat, and realizing that he would be bound to attract attention, and perhaps suspicion in this condition, he decided that it would be best to remain out of sight until the darkness could cover his lack of apparel. Beside this, his long run had exhausted him and he felt the need of rest.

After wading in for some distance, he came to a small island, covered with trees and underbrush, and crawling onto this he threw himself down to wait until night should fall.

It seemed an age to him that he was compelled to remain on the little island but night finally came, and after waiting until it was quite dark, Jimmy crept out of the swamp and continued down the river.

He had proceeded for about a mile when he came to a grove of large trees beside the river. The ground here was

cleared of underbrush and leaves, and Jimmy concluded that it was some sort of a picnic ground.

A short distance farther he came suddenly upon a building. It was dark and evidently deserted. After a moment's hesitation Jimmy advanced toward it.

The building was a low round affair, without windows, and Jimmy followed the wall around until he came to a door, which stood open. He paused here for a minute, peering into the dark interior wonderingly.

"Hardly large enough for a dance hall," he mused. "Still, it must be something of that sort. Guess I'll take a look inside and see what I find. I might run on to an old coat or hat that some one has left behind."

He stepped inside and groped half way around the walls without encountering anything. Then he stumbled onto what seemed to be several empty packing boxes. He was about to pass these, when he was startled to hear the sound of voices and footsteps approaching. They were apparently coming toward the building.

The first impulse was to dash out of the door and run, but the voices were already so near that he realized he could not do this without being seen and probably captured. Turning to the packing boxes he groped among them until he found one lying on its side, and into this he crawled just as a number of men entered the building, conversing and joking in a manner which at once assured him that they were not a pursuing party.

A moment later a faint gleam penetrating the side of the room where Jimmy was concealed, told him that a light had been struck. He discovered a small knot hole in the side of his box, and placing his eye to this, he saw that the light came from a large oil lamp hung low in the center of the building, directly over what appeared to be a small pit surrounded by a railing. The lamp was fitted with a huge green shade, which concentrated the rays upon the pit, and left the rest of the room in gloom.

The men were scattered about, in groups, conversing and joking. Two of them approached Jimmy's place of concealment and, seating themselves on the box in which he was hidden, commenced talking.

"Well, Judge," one of them was saying, "you've a pretty snug little layout here. Makes quite an addition to your hunting and fishing lodge, don't it?"

"Yes," replied the other; "this ought to be private enough to allow us to indulge in a little sport occasionally without Buck finding it out. The sheriff's so blamed conscientious in the performance of his duties that it isn't safe even to own a bird any more."

At the sound of the last voice, Jimmy started. It was a peculiar deep guttural tone, and he recognized it instantly as belonging to the judge who had sentenced him.

"Buck does keep the lid clamped down pretty tight. He won't even stand for a quiet little game of poker in a back room any more. They say he has it in for you, too."

"Yes. I exerted all my influence toward preventing his election, and he knows it. He'd jump at a chance to get even with me, and therefore we've got to be mighty careful about this place. I had it built ostensibly for a billiard room, and have a table which can be moved over the pit to conceal it. Outside of my man, John, you fellows are the only ones who know anything about the purpose of this building, and of course I can trust you not to let Buck get wind of it."

"You certainly can. We are all just as interested in the game as you are, and are just as anxious to see the sport. Guess we don't need to worry about Buck getting next to us, however; he isn't so wise. I hear he let a prisoner escape from jail today."

"Yes," answered the judge. "It was that young bum I sent up for six months, the other day. I sized him up for a bad egg right on the start, and when he tried to hand me that old gag about a wife and baby to support, it made me so tired that I soaked him good."

"By the way, where is your man John?" asked the other, who was apparently not interested in the misfortunes of Jimmy.

"That is what I'm wondering," answered the judge. "I sent him out this afternoon to open up the building and move out the table. I haven't seen him since we arrived; but he is probably around somewhere, and will show up soon."

"That accounts for the door being

open," mused Jimmy. "It's lucky I didn't run right into John's arms."

At this moment the missing John appeared, somewhat flustered, and with abject apologies for his prolonged absence. He made some explanation to the judge which Jimmy could not hear, was sharply reprimanded by his master, and ordered to fetch the birds.

John hurried out to execute this order, and shortly reappeared bearing a number of wicker covered baskets which he placed on the floor. The door was then closed and the men gathered expectantly around the pit.

Jimmy, who had been taking all this in thru his knot hole, saw two of the men turn to the baskets and select two of the fowls, which Jimmy recognized as game cocks. The men jumped into the pit with the cocks, and the others pressed closer around the railing.

This was the nearest that Jimmy had ever come to witnessing a cock fight, and while he could not see the actual battle, the actions of the men, their excited waging among themselves, and their exclamations of joy or dismay as their respective birds gained or lost ground, interested him in spite of his precarious position.

The fight was soon over, and Jimmy wondered as he heard the victorious rooster crow. He did not know that this was necessary in order to decide the battle.

Two more birds were quickly taken from the baskets and made ready to fight, and during this interval two of the onlookers stepped over to Jimmy's side of the building and picked up one of the packing boxes, carrying it to the side of the pit and sitting down on it. Noting this, two other men carried over the second box.

This was naturally very disconcerting to Jimmy. There were still over half the men standing, and at any moment they might come for boxes, and, as there was but one other besides his remaining, he would inevitably be discovered.

He hadn't given much thought to his position, so far, feeling that he was quite safe in his place of concealment; but now it occurred to him that, even if he were not discovered, when the men left, the building would very probably be locked, and as there were no windows, except those in the roof, he would be virtually a prisoner again.

He peeped out at the men. They were all excitedly watching the second fight, and were crowded closely around the pit. It'd be a pretty good plan for me to get out of here right now, he told himself.

Crawling noiselessly from the box he tiptoed to the door. To his dismay he found this barred with a heavy piece of oak set in iron cleats on either side of the casing.

When he tried to raise this bar it stuck in the cleats so that he had to exert considerable upward force to move it, and when he finally did succeed, it came up so suddenly that he lost his hold and it fell with a loud thud to the floor.

Several of the men turned at the sound. Seeing Jimmy frantically trying to pull the door open, they sprang forward and seized him just as he succeeded in his efforts and was about to plunge into the darkness outside. He was jerked back into the light, where they viewed him with mingled surprise and consternation.

"How did you get in here?" several demanded.

Before Jimmy could reply the judge strode forward, seized him by the shoulder and whirled him around so that the light fell full on his face.

"You're the young fellow that escaped from the jail today," he said after a minute's scrutiny.

Exclamations of surprise came from the other men.

"Are you sure, Judge?" one asked.

"Sure!" snapped the judge savagely.

"Of course I am sure! Didn't I send him up? This puts us in a pretty mess!"

"Looks to me like a good joke on Buck," laughed one of the men. "He lets a prisoner escape, and his arch enemy, Judge Butler, captures the prisoner. Ha, Ha!"

"It's not so funny as you think," retorted the judge. "If Buck gets hold of this fellow again, what's going to happen to our little cock-fighting rendezvous? You don't expect the prisoner to keep his mouth shut, do you?"

The laughing one subsided suddenly. "That's right," he agreed. "We can't let Buck get him. What in thunder will we do?"

"That's what I want to know," answered the judge. "What were you doing in here, anyway?" he demanded,

turning to Jimmy. "What did you want to break out of jail for?"

Jimmy took the letter from his pocket and silently handed it to his questioner. A surprised expression came into the judge's face as he read.

"Then you really have a wife and child?" he said.

"Certainly. I tried to tell you so before, but you wouldn't believe it."

The judge folded the letter up thoughtfully and handed it back. "Well, what are you going to do?" he inquired.

"That's for you to say," Jimmy answered, shrugging his shoulders. "You've got me."

"Why don't you let him go?" suggested one of the men.

"That's a bright idea," growled the judge. "Then if Buck caught him we'd have a double charge against us: running a cock fight, and aiding a prisoner to escape. The last is a mighty serious charge, I can assure you."

"Perhaps if we give him a chance to get away he will promise to keep his mouth shut about what he has seen here tonight," suggested one.

"How about that?" said the judge to Jimmy.

But a great light had dawned on Jimmy. He had been thinking fast while the others were trying to decide on what to do, and had arrived at a very definite conclusion: If the judge had him, he likewise had the judge.

"I guess I'll stay," he said quietly. "Stay!" gasped the judge in dismay. "What for?"

"Oh, there doesn't seem to be much use trying to get away. A man can't run around the country dressed as I am without exciting suspicion, and, as it must be pretty generally known by now that I have escaped, they'd spot me in a minute."

"If it's a coat you want, you can have mine," said one of the men, of about Jimmy's build, peeling off the garment and emptying the pockets.

"Yes, and you can have my hat," said another.

Jimmy accepted the gifts silently and donned them.

"Now get out of here, and don't stop until you are out of the state," said the judge, moving toward the door.

"I believe I said I was going to stay here," said Jimmy nonchalantly.

"But, what for? Don't you want to get away and take care of your family?"

"Doesn't seem to be much use trying. I'm out of a job and broke and couldn't help them if I did get home. I guess I might as well go back to jail and serve out my time. I'll have the satisfaction of seeing some of you fellows in there with me, or of knowing that you all paid big fat fines."

"Now, see here," said the judge in a coaxing tone, "you don't want to get us into trouble, do you? These fellows here are all prominent business men in Collins, and their arrest on the charge of participating in an cocking main would be a complete disgrace to them. And besides, it would put me out of business and ruin me, were it known that I was at the head of it. Now be a good fellow and get out of the state."

"If you get into trouble it'll be your own fault," answered Jimmy coolly. "If you hadn't been so Johnny Wise that you sent me up for six months without giving me a chance to explain my circumstances, I'd be working now and in a position to help my wife, instead of being a fugitive. I'll be mighty glad to see you get soaked to the limit."

"Oh, throw him out and take a chance," growled one of the men. "He's only bluffing and has no intention of giving himself up. He's just trying to work us out of a bunch of coin."

"If you put me out I'll hike right straight back to the jail and tell the sheriff all I know," declared Jimmy.

The men stared at each other in consternation. The situation was obviously beyond them.

"Heavens, let's make up a purse and present it to him," said one of them. "He's got us dead to rights and don't propose to let up until we dig."

"How much do you want to get out of the state?" demanded the judge, turning to Jimmy.

Before he could reply there came a sound from outside that froze them all.

It was the long drawn bay of hounds. The judge turned white as a sheet and listened breathlessly until the sound was repeated, this time closer to the building.

"Great Scott!" he gasped. "Buck has got the bloodhounds on the trail! Fasten that door, quick!"

Two men sprang back and placed the

bar in position. They were not a second too soon, for at that instant the dogs arrived outside and commenced to howl and scratch at the door. A second later the voice of the sheriff was heard.

"Open up, Graham, and surrender," he called. "We know you are in there, and you can't get away."

The judge seized Jimmy's arm and pulled him to the opposite side of the building.

"See here," he whispered, "you're caught and can't escape. But Buck must not know that the rest of us are here. You'll have to go back to jail, but if you'll slip quietly out and give yourself up, and keep your mouth shut, I'll give you two hundred dollars toward taking care of your family, and will do what I can to give you your freedom at once. Make up your mind quick!"

"I'll agree to that," Jimmy whispered promptly.

The judge thrust a roll of bills into his hand. "There's two hundred or more there," he whispered. "Now get out quick before Buck smashes the door down, and be sure to close it after you," and with that the judge sprang to the side of the pit and blew out the lamp.

The sheriff and his men had been keeping up a clamor outside and were now pounding heavily on the door. Jimmy quickly stepped to it and called out: "All right, sheriff, I give in. Stand back; I'm coming out."

He removed the bar, and opening the door just wide enough to permit him to pass thru, he slipped out, closing it quickly behind him.

He was immediately surrounded by the sheriff, three deputies and two huge bloodhounds. The men carried lanterns.

"I thot we would get you," said the sheriff exultantly. "We had to telegraph to Jackson for the hounds or we'd caught you before this."

"Where'd you get that coat and hat?" demanded one of the deputies suddenly. "You didn't have them when you left the jail."

"Why, I—I—" began Jimmy confusedly. "Who is in that building?" asked the sheriff suspiciously.

"Not a soul," lied Jimmy faithfully.

"I don't believe it. I thot I heard someone whispering before you came out. Guess I'll take a look."

To Jimmy's dismay the sheriff stepped to the door, but he had barely crossed the threshold when his lantern was kicked from his hand and some one struck him violently in the face, knocking him down.

Instantly all three of his companions and the dogs sprang to his aid; but the men inside were determined not to be recognized and aimed kicks at the lanterns in the hands of the deputies, quickly extinguishing them, and in a second the place was in darkness and a turmoil of shouting and fighting men and barking dogs.

Jimmy was for the moment left alone and seeing his opportunity he turned and ran as fast as he could across the fields.

From the direction of the town he could hear the heavy puffing of a locomotive and about a moment later the headlight swung into view around the curve about half a mile away.

He knew that the railroad must be somewhere close by, and he could tell by the labored puffing of the engine that the train was on an upgrade. Hopefully he ran toward it.

He reached the tracks just as the engine passed him, and, as he had surmised, the long heavy freight train was having all it could do to top the grade, and he saw that it was moving slowly enough for him to catch it.

He let fully half the train pass him before a box car with the side door open came along, and then by running, as fast as he could he managed to catch hold of the side of the door and swung himself inside.

A few minutes later the train was over the grade and rolling down the other side, carrying him away from his persecutors and toward his destitute family at a rate of thirty miles an hour.

"Mighty lucky I hit that grade," he soliloquized as he closed the door and sat down in a corner of the car. "They'll never dream that I caught this train, and will hunt all over the county for me. I'll make Hammond by daylight, and I'll walk home from there. Once in good old Chi, I guess I'll be safe from capture by any country sheriff."

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A HAND EMBROIDERED CORSET COVER.

BY MAE Y. MAHAFFY.

One of the most useful phases of the present day craze for handwork is the possibilities which it opens for inexpensive, yet attractive underwear. The muslin, nainsook, cambric or linen foundation, as the case may be, is never a costly item, but the dainty laces and embroideries bring up the expense of such garments to no small sum. And it is just here that the woman capable of placing tastefully a few lace or embroidery stitches can aid greatly in keeping the contents of her purse well nigh intact, and at the same time be the possessor of garments far more valuable than those made with shop trimmings.

To make a corset cover use the circular form of cut, making the cover seamless, and finish it with a plain belt. The top and fronts are scalloped simply in buttonholing with a coarse luster cotton. These scallops are easily marked out around one edge of a spool. An inch below the scallops, half inch buttonholes are worked across the front and back in groups of two, thru which the ribbon is afterward run. This ribbon is brot up and knotted in a bow on each shoulder, doing away with other shoulder straps.

The fronts are embroidered in scattered daisies of French laid work, and intermingling with them in haphazard fashion are small eyelets. The design is so simple that any one can readily lay out a similar one in a few minutes.

The eyelets are outlined in the row of stamping, then punched with a still-eto and overcast. The centers of the daisies are eyelets made in the same manner. The petals are covered first with a few rows of lengthwise stitches to serve as padding, and are then worked solid straight across this padding. The eyelet centers should be placed first, as it will then be an easy matter to join the petals neatly. A tiny bow or two of the ribbon gives a pretty finish to the fronts. It may be laced thru buttonholes if desired.

KITCHEN CONVENIENCES.

BY E. E. R.

The kitchen being the workshop of the home should be provided with as many conveniences as possible, in order to assist the housewife and her helpers in saving time and labor. Any one of the little things to be had at the five and ten cent counters cost a nickel or a dime, yet these are as indispensable in their way as the larger or more expensive utensils. Cooking spoons, forks, strainers, covers, sauce pans of various sizes, basins, eggbeaters, can-openers, and others too numerous to mention all come at the popular price. Few kitchens are any too well provided with all these and often the lack of a single one causes inconvenience and annoyance. I knew a badly cut finger to result from an attempt to open a tin can with a knife. The can opener which would have avoided the accident had never been purchased, needless to say the next visit to town brot one.

Tin covers for all sizes of sauce pans are a necessity. Burned fingers are caused by a lack of the right one which exactly fits the cooking dish. There is a kettle, made in granite as well as heavier ware, which has a clasp holding the cover tightly in position when draining. Any one who has ever spilled food or scalded their hands when trying to drain a mess of potatoes, knows how exasperating it is to have the cover slip, causing such an accident. A wire basket in which the potatoes are placed while boiling is still better. It can be lifted with its contents from the kettle.

The heavy iron pots and pans of olden times have largely given place to those of aluminum and agate. However, there are still uses for the ironware, and one of them is, when pan-broiling a steak. For this an old fashioned cast-iron spider is better than any lighter ware, as the heat will not warp or break it. For frying fish an iron pan-cake griddle is better than anything else as it has more surface and holds the heat evenly.

A kitchen cabinet combines many excellencies. The best ones are expensive but as a saver of steps they hold first rank, combining in small space what, in the average kitchen, is spread over considerable ground. To be able to stand in one place and reach every article needed in baking, relieves the necessity of repeatedly crossing the floor, when every step means added expenditure of strength.

The thin, wide-bladed knife known as

a spatula is not commonly found among the utensils of the kitchen. This little article soon becomes indispensable when once possessed. It is so pliable that it can be slipped under a cake or a pie without breaking either one. In cooking omelet it is better than a knife for lifting and turning the egg, and is excellent for spreading icing or meringue.

No workman can do his best unless equipped with tools, neither can a woman when she acts in the capacity of housekeeper and home-maker, with the multitude of demands upon her time and strength.

MOTHER'S SAGE BED.

BY MRS. NETTIE NEDRIDEK.

True, many mothers nowadays raise this herb, as did our grandmothers, and it is recognized as a valuable plant, both for its medicinal qualities and its general use in the culinary department.

Many of the home-mothers depend on the druggist for their supply and invariably receive an inferior quality. There is no plant more easily grown in the garden. Select a mammoth broad-leaved variety. An ounce of seed will grow enough plants to make nine or ten dollars' worth of dried leaves.

Seeds should be planted early in the spring in a hot-bed or a shallow box in a sunny window. Transplant so as to form stalky plants, before setting in the garden. The bed should be of rich, soft soil, enriched well with the best fertilizer—hen manure. Keep soil well worked up and free from weeds. A spadeful of fertilizer put on before a rain will give good results.

All flower buds should be plucked. Gather on a bright day, clipping the large leaves with sharp shears. Dry in a warm, dark room, or in a high warming oven over the kitchen range. The plant is a perennial; so, if carefully handled and covered with loose straw in winter, the plants will give you a good crop the second year. Quite a little sum can be earned each year by raising it to sell. The ladies will be glad to buy the fresh article of you at five cents per package. The second year your orders will come to you readily. The sage bed can occupy an out-of-the-way corner, and be a source of income to the wife, or to the children.

FROZEN Dainties FOR HOT DAYS.

BY G. A.

Frozen Chocolate.

Melt two squares chocolate, add one-half cup sugar, a few grains salt and one cup boiling water; boil until smooth and then add three cups scalded milk. Cool and freeze. Serve in glasses with beaten cream.

Coffee Ice Cream.

One quart cream, one and one-half cups milk, one-third cup coffee, one and one-fourth cups sugar, one-fourth teaspoon salt, yolks of four eggs. Scald the milk with the coffee, add one cup sugar; mix yolks of eggs with one-fourth cup sugar, and salt; combine mixtures, cook over hot water until thickened, add one cup cream and let stand on back of range twenty-five minutes; cool, add remaining cream, strain and freeze.

Brown Bread Ice Cream.

Three pints cream, one and one-fourth cups dried brown bread crumbs, one cup sugar, one-fourth teaspoon salt. Soak the crumbs in one quart cream, let stand fifteen minutes, rub thru sieve, add sugar, salt and remaining cream and freeze.

FILLINGS FOR SOFA PILLOWS.

BY LAVILLA W. MACOMBER.

Did you ever make a pot-pouri pillow? If not, now is the time to begin collecting flower petals, etc., to fill one.

Where roses are abundant, their petals alone may be used as a filling, but most roses have no particular odor after they are dried, and it is well to sprinkle over some good satchet powder, or powdered orris root, after drying, then shake well together and the filling is ready.

Petals of sun flowers, both the old-fashioned and hybrid varieties, also golden glow, have a slightly resinous odor which is very agreeable to some people, and would make a good filling for a pillow. The flowers and leaves of swamp gum weed also have this odor, that is what gives the delightful sweet smell to wild hay cut on meadow lands.

Any kind of flower petals may be used and mixed with leaves, which have perfumes of their own. Petals of daisies, violets, roses, lavender, etc., may be mixed with the dried leaves of lemon vermena, sweet briar, rose geranium or rosemary and all together make a sweet-smelling pot-pouri.

By the way, let me tell you how to

make an inexpensive powder to mix with the dried petals: Take a small handful each of dried lemon and orange peel, broken stick cinnamon, a little powdered orris root, coriander and caraway seeds; pound these in a mortar until well broken and mixed together, then sprinkle over the petals. Tiny rose jars filled with dried rose petals with a little of this powder sprinkled over them, make very dainty Christmas gifts.

For an invalid or nervous person, a pillow filled with dried hops is especially good, as the odor is soothing to the nerves, and is said to be a cure for sleeplessness.

A light, dainty filling is found in the pods of the common milk weed, which is generally found along the road sides. The pods should be gathered while a little green, as the fluffy filling will soon scatter after they burst. This filling is quite as light and elastic as leathers.

Dried clover blossoms, especially the small white kind, make excellent pillows and may be used alone with a sprinkling of violet powder, or they may be mixed with other flower petals.

Last summer, while I was compelled to remain indoors by illness, many of my friends sent me large bunches of roses. I set about drying the petals, after they had lost their freshness, and by mixing with them heads of white clover and leaves of rose geranium, I had enough for a small pillow.

Cushions for the floor or porch may be filled with pine needles, chopped hay or old newspapers cut in long, thin strips.

SEALING FRUIT JARS AND THE USES OF GLYCERINE.

BY EMILY L. RUSSEL.

In these busy canning times every intelligent housewife gladly avails herself of the experience of others. It may be generally known that the jars, after being filled and the tops screwed as tightly as possible, should be stood on their heads until the next day to detect any leakage. While cooling, the tops may be tightened more if needed, but never disturbed after cold. A neighbor complained of the number of her cans, whose contents had spoiled. One morning, happening in her kitchen when she was "trying" her can tops—after standing all night, perfectly cold, and no signs of leaking, we told her the probable cause of her "bad luck." But, being of the "always-done-this-way" kind, we doubt if she changed. It is a good plan to partly fill the jars with hot water, adjusting rubbers and tops, then snake well or stand on heads, and any imperfections will be discovered before the fruit is put in.

It is said that if before sealing the jars five or six drops of glycerine is added the fruit will not mold. Druggists preserve their fruit syrups in this way.

Speaking of Glycerine.

Its uses in the household are numerous. In the best regulated families accidents will happen to the table linen, in the way of stains. Those caused by tea or coffee can be treated by soaking the fabric in cold water; wring, spread out and pour a few drops of glycerine on each spot. Let stand several hours, then wash with cold water and soap.

Coffee and milk stains may be removed from woolen material by painting the spots with glycerine, then wash with pure luke warm water applied on a clean linen rag. Afterwards press on the wrong side.

A cement made by adding a teaspoonful of glycerine to a gill of glue is a great convenience in the kitchen, especially good for fastening leather, paper or wood to metal.

It also has its various medicinal uses—some may not be well-known. When the baby has a stomach-ache, caused by wind, two or three drops of glycerine will relieve it; and half a teaspoonful every half hour has cured summer cholera, water brash, etc.

It is said on good authority that the very best things for burns are glycerine and epsom salts. Lime water and linseed oil are most widely used, but glycerine and epsom salts are superior. Moisten the salts with water enough to dissolve, add an equal amount of glycerine as of salts used. Soak cotton in the liquid, place on burn, bandage so as to keep out the air, keep moist, and the injured part will be well in a remarkably short time. Relief from pain is almost immediate.

The word glycerine is derived from the Greek and means "sweet." It was discovered by Scheele in 1779, who called it "the sweet principle of oil."

The usual method of obtaining it on a small scale is from olive oil.

Three Reasons Each with Two Legs and Ten Fingers.

A Boston woman who is a fond mother writes an amusing article about her experience feeding her boys.

Among other things she says: "Three chubby, rosy-cheeked boys, Bob, Jack and Dick, aged, 6, 4 and 2 years respectively, are three of our reasons for using and recommending the food, Grape-Nuts, for these youngsters have been fed on Grape-Nuts since infancy, and often between meals when other children would have been given candy."

"I gave a package of Grape-Nuts to a neighbor whose 3-year-old child was a weakened little thing, ill half the time. The little tot ate the Grape-Nuts and cream greedily and the mother continued the good work and it was not long before a truly wonderful change manifested itself in the child's face and body. The results were remarkable, even for Grape-Nuts."

"Both husband and I use Grape-Nuts every day and keep strong and well and have three of the finest, healthiest boys you can find in a day's march."

Many mothers instead of destroying the children's stomachs with candy and cake give the youngsters a handful of Grape-Nuts when they are begging for something in the way of sweets. The result is soon shown in greatly increased health, strength and mental activity.

"There's a Reason."

Look in pkgs. for the famous 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.

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The present price for this wonderful, rich, black soil is \$15 to \$25 per acre. It will double or triple in value in three years. Think of the once worthless bottom lands in Illinois and Indiana that are now drained and sold for \$100 to \$200 per acre. Yet the best land in these states doesn't compare with the wonderful productive-ness of Southeast Missouri drained land for farming, fruit-growing, truck or stock-raising.

29 immense dredges are working; over 36 miles of ditches are completed every month. 200,000 acres are already drained, and producing marvelous crops. Soon the price will go up. Why not investigate now, while you have a chance Location of Little River Drainage District to buy low?

WRITE TODAY for free 60-page illustrated booklet, "Southeast Missouri: Its Advantages and Opportunities." Address The Little River Valley Land Co., 207 Himmelberger-Harrison Bldg., Cape Girardeau, Mo.

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THE SPICES WE USE.

BY IRMA B. MATTHEWS.

Pepper.

As most housewives are now using many spices in canning and pickling we thought a series of articles on spices would be of especial interest. This is the first in the series of five articles which will appear each week until concluded.

Every one that cooks uses spices, although some use many more than others, but I was surprised one day in a gathering of ladies when the topic came up to find how few knew anything about them. What part of the plant was used, how prepared and where they grew.

Acting on this knowledge I have designed this series of articles to give the information regarding these that all should possess. I have chosen pepper as the first because it is one of the oldest spices known to mankind. We find mention of it before Christ's time and at one time it was so highly prized in the city of Rome as to be worth its weight in gold. As one may well imagine, only the wealthy used it at that time, but now it finds its place in every household.

Black pepper is the fruit of *Piper nigrum*, a rambling sort of a shrub which is a native of the East Indies but is now cultivated in nearly all tropical countries including many of the New World. The fruit is borne in clusters, each individual pepper being about the size of a pea and when ripe, of a beautiful bright red in color. It is, however, gathered as soon as it begins to turn as it is stronger then than when it is fully ripened.

The pepper in the wild state grows in a moist leafy soil, and the natives often gather this, but when cultivated it is grown from cuttings, and is usually planted about six feet apart. It is supported by poles or by trees set for the purpose, for it really likes shade and the young plants begin to bear in three or four years, and continue until they are twelve years old.

The berries, when picked, are dried in the sun and then rubbed by hand to separate them from the stalks.

Taken in small quantities, pepper is very beneficial as a stimulant, but it is a fact that it is hard to find a reason for that the people living in the warm countries use it in much greater quantities than the people of the north and seem to be benefited by it rather than otherwise, as one might suppose. It was the one thing that I found difficult to get used to in southern cooking, although in our own country I believe the red pepper is used more than the black.

In California they raise a shade tree that is a species of pepper, although nothing could be more beautiful than they, with their drooping leaves and clusters of scarlet berries, they are not as many suppose, the pepper of commerce, although sufficiently pungent I assure you, even the leaves having the pepper flavor.

THE SPARE ROOM.

If you are obliged to use the room regularly which you would like to keep as a spare-room, try this plan. Avoid having the room cluttered up with useless toilet ornaments—family pictures or mottoes, such as "God Bless Our Home," or "What is Home Without a Mother," etc. Keep the room neat at all times. Have a covered box—a shoebox makes a convenient size—in the closet, and in this—keep a pair of clean towels and wash cloth, a pair of clean sheets and pillow covers, a fresh bedspread, blankets, dresser and wash stand covers, have these always ready. Then when unexpected company comes, and you have to provide sleeping accommodations, there will not be a grand scurry and a chasing hither and thither getting the room ready. All you will have to do is to remove the covers that have been in use and replace with the clean ones, make up the bed and your "spare room is ready."—E. J. L.

A CURE FOR BILIOUSNESS.

Chronic biliousness, of which so many women complain, is nothing more than chronic toxemia or poisoning, resulting from the putrefaction of food in the alimentary canal, and is relieved by free use of water as a beverage. Eight or ten glasses a day would be none too many.

Copious use of water is an internal bath, and purifies the body. An excess is to be avoided. Frequent use, rather than a large quantity at one time, is recommended. You will find that the person with a good complexion is generally addicted to the water habit.

Water thins the blood, and increases its volume. It is an effective means of relieving an ordinary cold, aiding as it does the elimination of the toxic matter in the blood which, more than exposure to the dreaded "draught," causes the symptoms known as "a cold."

Water is useful in cases of rheumatism and constipation. Few of us drink enough of it.

Elderberry Pie Recipe.—One cup of sour cream, one cup of sugar, one cup of elderberries, two tablespoons of flour. Bake with two crusts.

The man who invents a machine that will save the woman two minutes in the preparation of a meal will do infinitely more to conserve humane power than he who invented the reaper or the threshing machine.

Michigan Farmer's Club List.

For the benefit and convenience of our subscribers we have arranged the following list of papers on which we can save them money. Besides the money, they save the trouble and expense of sending each order separately.

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It will be useless to send us subscriptions for any daily—except the Times—at Rural Route prices. If you do not give number of your route publishers will only accept them at first column prices.

If you want the MICHIGAN FARMER TWO YEARS and the other papers one year add 45c to the second column price. For the Michigan Farmer 3 years add 75c. We do not send samples of other papers. Address the publishers direct.

Send all orders to the Michigan Farmer or through our agents.

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News Grand Rapids, Mich.		3 00	3 50	1 75
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Tribune, Bay City, Mich.		3 00	2 35	1 65
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Reliable Poultry Journal, Quincy, Ill. (m)		50	1 05	35
Shepherd's Criterion, Chicago, Ill. (s-m)		50	1 05	35
Swine Breeder's Journal, Indianapolis, Ind. (s-m)		50	1 05	35
Popular Magazines.				
American Magazine (m)		1 00	1 50	75
Cosmopolitan, N. Y. (m)		1 00	1 50	1 00
Century Magazine, N. Y. (m)		4 00	4 30	3 75
Harper's Magazine, N. Y. (m)		4 00	4 30	3 75
Harper's Bazar, N. Y. (m)		1 00	1 50	1 00
Lippincott's Magazine, Philadelphia, Pa. (m)		2 50	3 00	2 50
Metropolitan Mag., N. Y. (m)		1 50	1 50	1 50
Pearson's Magazine, New York (m)		1 50	2 00	1 50
Review of Reviews, N. Y. (m)		4 00	3 00	4 00
McClure's, N. Y. (m)		1 50	1 50	1 50
World To-day, Chicago, Ill. (m)		1 50	1 50	1 50
Ladies' or Household.				
Housewife, N. Y. (m)		35	1 05	30
Housekeeper, Minneapolis, Minn. (m)		1 00	1 45	60
Home Magazine, Atlanta, Ga. (m)		1 00	1 40	80
Ladies' World, N. Y. (m)		50	1 10	40
McCall's Magazine, N. Y. (m)		50	1 10	40
Mother's Mag., Elgin, Ill. (m)		50	1 10	40
Vick's Family Mag. (m)		50	95	35
Woman's Home Companion, Springfield, O. (m)		1 55	1 40	1 25
Religious and Juvenile.				
American Boy, Detroit, Mich. (m)		1 00	75	75
Little Folks, Salem, Mass. (m)		1 00	1 00	1 00
Sunday School Times, Philadelphia, Pa. (w)		1 00	85	85
St. Nicholas, N. Y. (w)		3 00	2 85	2 65
Young People's Weekly, Elgin, Ill. (w)		75	75	75
Youth's Companion, Boston, Mass. (m) (new or old)		1 75	1 75	1 75

(w—weekly; m—monthly; s-m—semi-monthly.)

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MANAGING THE WASHING.

BY MRS. G. HOWARD SMITH.

When I first started house-keeping, nothing bothered me quite so much as wash day. I dreaded Monday! I almost believe I made every one around me dread it, too. I want to tell you how I have managed to remove a great deal of the worry and strain of the dreaded wash-day—for it still is my hardest day in the week, but so much easier than it used to be.

Saturday I plan to have plenty of bread to last over Monday. Often while doing my baking I make a steamed graham pudding, which will keep several days and is easily steamed on Monday. Last wash day I prepared a rice pudding while getting breakfast, and put it in the oven to bake. It was very quickly done and required very little attention while baking.

I always plan an easily and quickly prepared breakfast and dinner, so I can have all my strength and patience for the hardest part of the day.

By Saturday night my soiled clothes are all together and sorted. Sunday night I put the finest into the boiler, the remainder of the white clothes I put into a tub and cover with cold water. Before I start breakfast Monday morning I fill the boiler and let it remain thus till I have breakfast ready to serve. Then I put enough of the following preparation into the boiler to make a good suds: One bar of soap shaved, three tablespoonfuls of borax, two tablespoonfuls of kerosene, about one quart of water. Let it boil until soap is all dissolved.

This is the finest washing preparation I know of. It removes the dirt and stains and whitens the clothes without injuring them in the least. After once trying it, I am sure you will not want to be without it. I keep a jar of it on hand.

Let the clothes in the boiler heat slowly to boiling point, then boil 25 minutes—longer boiling will not hurt them. Remove the clothes from boiler, add a little more soap preparation and then put the clothes that are soaked to boil while the rest are being washed. Drain out as much of the boiling suds as possible, and if adding cold water to clothes makes them too cold, have some clear water heated to warm it, but do not use the hot suds.

I find that I have scarcely any rubbing to do to the first boiler full—only to get the suds out. Wring as dry as you can and blue. Have a large tub for blueing and as full as possible.

As soon as the white clothes are done I put the colored ones in, and let them soak a few moments unless it is a piece I think might fade.

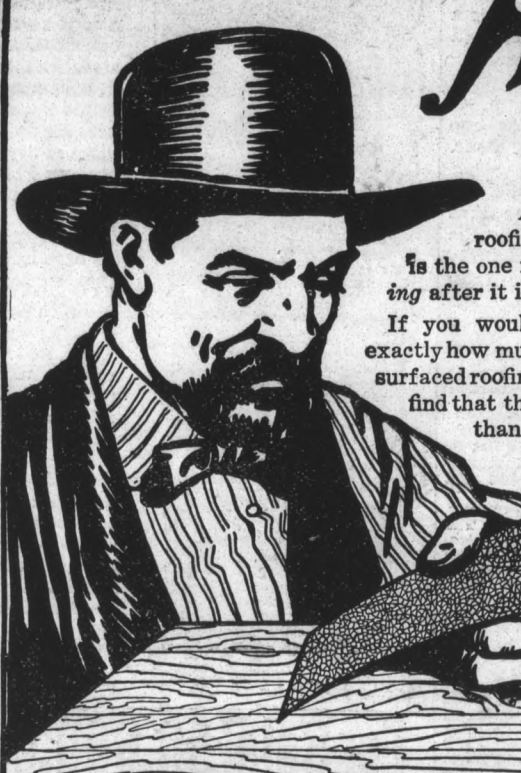
I find that by washing colored clothes in a cold suds (not a fresh clean one), and rinsing well in two waters, they keep their colors better.

In wringing and hanging up my clothes I save most of the ironing. Every woman knows how hard it is to iron wrinkles out of linen, especially when one uses a wringer. If napkins, towels, lunch cloths, etc., are folded before putting thru the wringer, over half the work of ironing is saved. It can be easily done, and they do not need to be unfolded in the blue water. I fold towels twice lengthwise, napkins the same, and leave them all folded until I hang them up, then each piece is unfolded. Wrinkles iron easily from cotton pieces if one will take a little care and shake them thoroly. My dish towels, dusters, and gauze underwear, I never iron. I fold all my clothes as I take them from the line and those I do not iron I place in the hot closet to become perfectly dry.

There is no one on our street whose clothes are whiter than mine, and few, if any, have them on the line earlier. This sounds like boasting, but it is only of the method I have learned in doing my washing.

THE KITCHEN FLOOR.

If you have an old kitchen floor which you wish to paint—all farm kitchen floors should be painted, and the paint renewed frequently—and the floor is full of cracks, the following mixture is a good one for filling up the cracks, preparatory to painting. Tear old newspapers up into very small bits, pour over this boiling water and let it soak for 24 hours. By that time it should be thoroly soft. Pick it and mash it well and stir it into flour paste, into which a little glue has been stirred. Clean the dirt out of the cracks and fill with this mixture a day before you are ready to do the painting.—E. J. Lynch.



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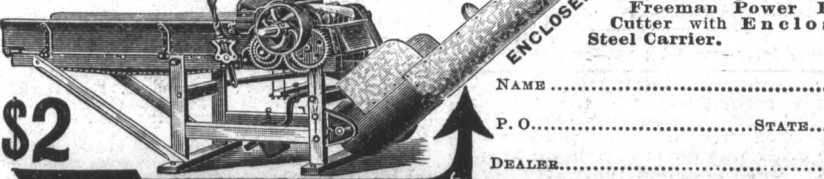
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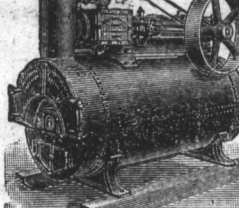
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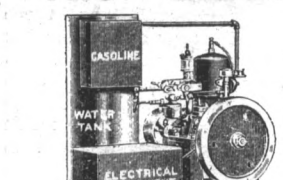


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