

# MICHIGAN FARMER

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## FARM NOTES.

### Important Autumn Work.

At this season of the year the average farmer is likely to be engrossed with the securing of his corn crop, and after this work is over to feel that the active farming campaign is closed, and that there is little in the fields that needs his attention until spring. There are, however, some little things which may have escaped the notice of the less observing of our readers which need attention upon a great many farms. One of these is the matter of soil erosion. This is probably one of the greatest wastes to which a rolling or broken farming country is subjected. Who among us has not noted the deep, ugly gullies which are to be seen somewhere on far too many rolling farms and many times in places where it would have been easy to prevent this costly washing of the soil which not only spoils the land from which it is washed, but that upon which it is washed as well, in many cases. Every one of these big gullies had a small beginning and might have been easily checked at the start if the owners of the farms upon which they are an eyesore had been observing and awake to the danger which confronted them. Some of this washing will occur in mid-summer, when it is more or less unavoidable in case there should be a cloudburst sufficient to wash the freshly plowed or cultivated fields. But far the greater portion of the damage from erosion which occurs upon our farms occurs during the spring of the year, when the frost is going out of the ground and the snow is going off with a rush. At that time the soil is soft and easily washed, and where a small gully has been started the summer previous it is almost sure to be converted into a large one by the spring freshets if no precautions have been taken against such a result.

Some may offer the objection that the owner of the land has no power over the spring freshet, and must accept damage of this kind as inevitable. But this is a poor excuse for a neglected problem, and this problem is perhaps more often neglected upon farms subject to soil erosion than almost any other. A little timely attention at this season of the year will often avert any such loss, and no work done on the farm will compare with this in profit to the owner.

Of course, the farmer whose land is rolling generally plans to have some crop growing on his rolling fields over winter, even if it is nothing more than a catch crop, but this is not always practicable and sometimes the catch crop does not get sufficiently well developed to be of much service in preventing soil erosion, especially where that process is already started. Hence the safe thing to do is to prevent it by some other means. This can be done by applying almost any kind of coarse litter where there is a little wash started. This will serve to keep the frost in the ground until comparatively late in the spring at this point, and the litter used will tend to hold the particles of dirt which wash into the depression made by previous washing, thus filling it somewhat and forming a rather firm mat of vegetable matter and fine dirt, which it will take unusual conditions to move. Various substances may be used for this purpose. On the writer's farm the potato vines are raked from the level portions of the potato field after the vines have become well dried out and these are applied liberally whether there is any prospect that a small wash may occur. Even quite large gullies can be stopped and partially filled in this way if treated with an application of this coarse vegetable matter each year. In case the potato vines are not available for the purpose, any other coarse vegetable matter

may be used, such as straw, marsh hay, clover chaff or, in fact, anything which will act as a mulch and bind together firmly when the surface soil washes into it by the action of the spring rains.

### Wood Ashes As a Fertilizer.

In reading your valuable paper I see ashes referred to as a fertilizer. I would like to know the real value and use as a fertilizer and the best way and time to apply them. If for corn or potatoes and the supply was limited, would a handful to each hill be a benefit and should the ashes be placed on top of the surface of the soil?

Kent Co.

G. DIETDERICH.

The value of wood ashes depends not a little upon the kind of wood from which

to the land. They should preferably be thoroughly harrowed into the soil some little time before a crop is planted in order to secure the best results from their use. It is not a good plan to use them too liberally on land intended for a potato crop as ashes encourage the growth of the scab fungus on account of the large amount of lime which they contain.

The amount desirable to use per acre will depend altogether upon the condition of the soil and the crop which is to follow the application. Where the supply is limited, it would doubtless be more profitable to scatter them thinly and cover a large area, but where the supply is plentiful,

a new insect, altho it has not been troublesome in Michigan for some years.

About 15 years ago the damage wrought by the clover root borer was so extensive that it practically destroyed the clover over large sections of the state, making such a thoro job of it that there was little if any clover left for it to feed upon. Since that time the insect has been reported in a few localities but has not become a serious pest, partly, we believe, because more farmers are practicing a short rotation of crops than was the case a few years ago. A short rotation is unfavorable for this beetle, as will be noted later.

The clover root borer is a very small beetle, not exceeding one-eighth of an inch in length and of a dark brown or black color. There is but one brood a year, the eggs being laid in May or June in small cavities in the roots gouged out for the purpose by the female beetle. The young grubs burrow down toward the branches of the roots and the insect may often be found in both stages of development in the crown of the same plant. Owing to their habit of feeding exclusively on the interior of the root it is impossible to destroy them with insecticides, the best preventive remedy being to plow the infested fields in June or July after the hay is secured. This exposes the grubs to the sun and also soon deprives them of their supply of food.

For some reason the borer does not attack the roots of new seedling to any extent the first fall after the seed is sown and if old seedlings are plowed after they have been cut for hay one year, the clover root borer will not prove very troublesome and preventive remedies need not be resorted to. Mid-summer plowing is probably as good a remedy as can be used where a crop of these beetles has matured at the expense of the stand of clover in which they multiplied.

### Old Insect Enemies Troublesome.

There has been quite a general complaint this season with regard to beetles that worked in the maturing corn crop, eating the kernels from the tips of the ears, and from grubs which were found working at the roots of potatoes, strawberries and other crops. Several samples have been sent in for identification. The beetles were submitted to Prof. Pettit, entomologist of the Michigan Experiment Station, who stated that they were an old pest, commonly designated as the bumble flower beetle, on account of close resemblance of the noise which they make in flying to that made by the bumble bee. These beetles are fortunately less common than when the country was new, as there seems to be no weak point in their life history where they can be successfully attacked. The grubs complained of in a majority of cases appear to be the larvae of the same beetle, of which there are two broods each year, one in the spring and another in the autumn. Late fall plowing of badly infested ground would probably be as good a remedy as could be employed, altho these insects are not likely to give serious trouble in the average season, their prevalence at this time doubtless being due to particularly favorable conditions for their multiplication.

### The Cost of Sowing Wheat.

What is it worth to fit ground for wheat per acre in Michigan, and seed it, not putting in cost of seed wheat and grass seed? What is it worth per acre to cut and shock same, calling labor \$2 per day of 10 hours, and the same amount for team?

Lenawee Co.

"MOSSBACK."

It is impossible to answer this question intelligently from the data given. In a proposition of this kind so much depends upon the conditions which have to be met in the individual case that it is hard to even imagine what an average case might be. For instance, the cost of fitting land



A Good Type of General Purpose Horse—First Prize Winner at a New York Fair.

they are made. Good hard-wood ashes contain from 4 to 7 per cent of potash in one of the best forms for the use of plants, about 2 per cent of phosphoric acid and besides this they contain a high percentage of lime which adds to their value as a fertilizer, especially upon a soil which is inclined to be acid or which would be benefited for any reasons by an application of lime. This applies only to hard wood ashes which have been kept dry. Leached ashes contain only one to two per cent of potash and soft wood ashes are also poor in potash.

Good ashes at the current price for the valuable ingredients that they contain, are worth from \$6 to \$10 per ton to apply

20 to 40 bushels per acre could be used to advantage on many lands. Even where a small quantity is to be applied it is better to have it thoroughly mixed with the soil than to scatter either on the surface or on the hills of corn or other crop upon which the ashes may be used.

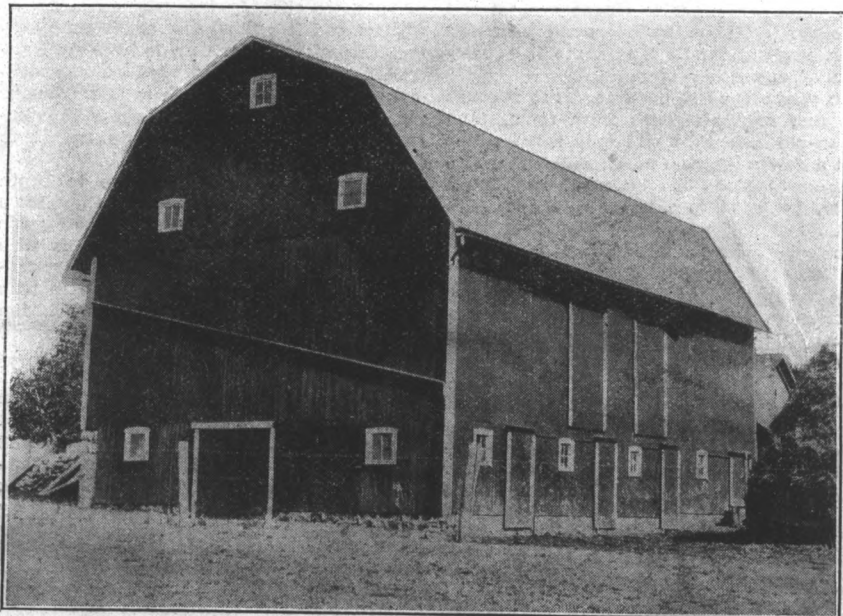
### The Clover Root Borer.

Enclosed you will find some June clover roots which have some kind of a bug in them. The bug works in the clover roots and kills the clover. It works only in the June clover, of which it kills whole fields. I would like to know what it is and how to get rid of it.

Gladwin Co.

FLOYD EMERY.

The clover roots received were infested by the clover root borer, scientifically known as *Hylastes obscurus*. This is not



Farm Barn of Chas. S. Ingalls, of Clinton Co., Mich. (For description see page 350).



that was summer fallowed would necessarily be greater than if the crop was stubbled in, and the cost would be greater in the latter case than where it is sown after some cultivated crop. Then again, if the season is very dry the cost would be greater than in a normal season and under normal conditions, etc. The cutting and shocking would also depend largely upon conditions. If the grain is light or medium and stands up well the cost will be materially less than where it is heavy or down, both in the cost of the labor and the twine. In practically every neighborhood there is an established price for the cutting of grain with a binder, which can safely be taken as a basis to figure on, and by adding the cost of twine and of a man to shock the grain, a very close estimate can be made. But if simply the labor is to be taken into consideration, eliminating the value of the machine for cutting or the twine for binding, the cost at the prices stated and under average conditions would probably range from 50 to 75 cents per acre.

#### GRAIN NOTES.

I believe I have reported in *The Farmer* my method of putting in wheat and oats, and the rotation followed, but had not reported the results.

It may be well to state that one piece of nine acres was half corn ground and half a clover sod that had been cut for hay, then for clover seed, and then turned under for wheat. This made the wheat a little late and the season was so dry last fall that this piece grew a very short top during the autumn and did not look very promising early in the spring. However, it picked up rapidly with warm weather and rains, and the clover sod half made a good growth and yielded well, but contained some shrunken heads. The corn stubble wheat did not do as well as usual, but the whole field averaged up pretty well, giving a yield of 31 bushels per acre. This field is now re-sown to wheat and has made a good growth. I believe it will yield a better crop than last year.

The other field of 9½ acres was in the third year of the rotation, corn, wheat, clover. This had a good uniform stand, tho a part of it was lodged badly. The heads were large, and the grain plump. This field yielded 41 bushels per acre. The variety is Winter King. The field now has an even catch of clover which has afforded much pasture during the past two months.

The oats were on land recently purchased; land that had been cropped quite heavily without returning much to the soil, and was in what might be termed a semi-run-down condition. Two years ago half of this was clover and half a seeding held over a second year, and as a consequence was nearly all timothy. This was well manured and plowed for corn the following spring, but did not produce a heavy crop chiefly on account of the work of the white grub, aided by the dry weather. Last spring this was disked with a single action cutaway harrow, lapping half, then cross disking, and harrowing once. One and one-half bushels of seed was drilled to each acre with a shoe drill. Altho there were many dire predictions as to what the crop would be it was quite satisfactory, yielding 60 bushels per acre. The field now contains an even stand of wheat.

We have just finished, October 20, sowing rye on the bean ground. It is not the intention to let the crop mature for grain, but to plow it under and set to trees in the spring, growing a hoed crop, probably corn, between the trees. The object is to keep a growing crop on the soil to take up the plant food that is released during the fall and winter, and to catch the snow, and furnish humus to turn under. I believe the rye will pay for itself in manurial value alone. If it is not too late when we get the potatoes out of the ground we may sow rye after them. The vines are dead, but the potatoes need to be left in the soil awhile to harden up and toughen the skin.

Corn husking has begun. We have one field of Pickett's Yellow Dent, and one of White Dent. The former has smaller stalks and ears, but small cob and long kernel, and while it will not yield as many baskets of ears to the acre, it will give a good percentage of shelled corn, and a nice lot of fodder. The corn has dried out quite well, and is in good condition to crib in an open crib. As yet we can not tell what the yield will be, but it is much more satisfactory than last season. There is very little immature corn this year. One of these fields contains wheat, which is looking well for corn ground wheat at this season; the other we will leave for oats, as it is rather low, and

wheat would be likely to kill out considerably during the winter. I do not like to leave ground bare in this way, tho the corn stalks, which were cut high, will be quite a help in holding snow. A good many are topping corn in this section now, and from the standpoint of furnishing a mulch and something to loosen up the soil it is a good practice. Where one has plenty of stock to turn in there is not so much loss as one would think, and the tops are nice to feed. Some have tried topping a part of the field and cutting the balance, and found that better crops were obtained on the part where the stalks were left below the ear.

Calhoun Co.

S. B. H.

#### A GOOD FARM BARN.

The first page illustration is from a photograph of a barn built by Charles S. Ingalls, of Clinton county, in 1902. This barn is of heavy timber frame construction, a great many of the timbers being 12 inches square. The posts are 16 ft., with purline posts of the same length supporting the gambrel roof, the peak of which is some 40 ft. from the ground. The barn is 68 ft. long, by 36 ft. wide. The basement is arranged with a driveway thru the center lengthwise of the barn with horse and cow stables on one side and sheep pens, box stalls and granary on the other side. There is a water tank on one side 7 ft. wide and as long as the stabling is deep, making ample storage for water in the barn, so arranged that all the stock can be conveniently watered inside. The basement is 8½ ft. high and the wall is of field stone. The main floor of the barn has two 14 ft. driveways, with a mow on either side, but there are no mow girls so that machinery or anything desired can be stored in any part of it when empty. Altogether this barn is one of solid and convenient construction and well adapted to the needs of the general farmer.

#### KEEPING THINGS IN THEIR PLACE.

I was forcibly impressed with this idea, when I stopped at a farm house to obtain a bit and brace, which I had occasion to need for a few minutes. The proprietor, altho he had nice buildings and seemingly places for everything, could neither find a bit or brace anywhere. Now it is a great deal quicker, after using a tool to put it in its place, than it is to find it if left where last used, for it is hard to remember where that was. I can go in the dark and put my hand on any tool I want, unless, as is sometimes the case, someone has borrowed it. And, in this connection, I would say that if borrowers would always return what they borrow when they are thru with it, it would save lots of trouble.

Shiawassee Co.

B. S. FOSKET.

#### DRAWING MANURE FROM TOWN.

Whether it will pay to draw manure from town depends somewhat on how far one has to draw it. Our 40 acres is about 1½ miles from the county seat.

I have drawn some manure, when I had the time, the year round, more in winter than in summer. Where I spread it on timothy meadow it made two to two and one-half tons to the acre. Two rods from where the manure was spread there was only about half as much hay. The meadow is as good a place to spread it as anywhere, in the long run. If one can keep up a heavy sod, when he plows it for corn he will get a good crop, under favorable conditions.

It takes no longer to fit the ground and care for corn on rich ground than on poor, run-out land. The same is equally true of any other crop.

To prove that it pays to draw manure one and one-half miles from town, take a run-out field that will only raise stalks and a few nubbins (with good care), and put on 20 loads to the acre, such as I draw, loads 14 feet long, four feet high and three feet wide, well tramped down. The corn would probably go 75 to 100 bu. ears to the acre. The strength of that manure is not all used up with the corn crop. Plow that field next spring and sow to oats and seed to clover and you will stand a chance of getting a good catch. If I miss getting a good catch of clover I claim I lose \$5.00 an acre and how much more I don't know.

In a bulletin from our experiment station I read that a good crop of clover was worth from \$8 to \$12 a ton to the land on which it is raised.

A man at Grand Rapids who is running a green-house, pays \$1.00 a day, 365 days in the year, for the manure from a feed barn where 100 horses are kept. The truckers make yearly contracts for all the manure made in the city, that is, they

buy it. I am told that they consider it worth \$2.00 a load to keep up their land so as to raise profitable truck crops. Why not the farmer? If it is worth \$2.00 a load any stirring farmer can draw 100 loads during the winter, thereby making \$200. If you are so situated that you can get manure in a nearby city or town for the drawing, or at a nominal price, try it and see if it doesn't pay and pay well.

Clinton Co.

M. A. DUNNING.

#### EFFECT OF ROTATION OF CROPS ON THE COMPOSITION OF SOIL.

Over the Potomac river, opposite the Washington Monument, on the Virginia shore and below the bluff on which stands Arlington Cemetery, the nation's graveyard, is a portion of the vast estate of General Lee, now used by the department of agriculture for experimental purposes.

A considerable area of the Arlington farm is used by the Bureau of Soils and devoted to crop rotation for the purpose of learning the effect of rotation on the production of the soil. Over eighty distinct experimental areas are involved in this work.

It is the general impression thruout the farming sections that rotation of crops gives the soil a rest, that is, the plant food needed by the different crops varies, one crop removing one set of substances one year and a different crop a different set of substances the next year, thus giving the soil a chance to build up for a certain crop between the years it is called upon to produce such a crop. According to this contention, if a certain soil is called upon to produce the same crop or class of crops for a number of years it becomes exhausted of the particular kind of plant food needed by those crops, and small yields are the result. In spite of the fact that this view is generally accepted, it is in the main doubtless incorrect. The elements of plant food which are likely to be lacking in the soil, are nitrogen, phosphoric acid and potash. According to the generally accepted theory, when a soil ceases to be productive it is because it has become exhausted of the available portion of one or more of these substances.

According to experiments conducted by the Minnesota Experiment Station, it was found that more of the life-giving elements are removed by the rotation than by the continuous cropping to wheat.

With a five-year rotation of first, wheat, second, meadow, third, meadow, fourth, oats, and fifth, corn, 196.6 pounds of nitrogen, 197.5 pounds of phosphoric acid and 465.2 pounds of potash were removed, as against 148 pounds of nitrogen, 84.6 pounds of phosphoric acid and 148 pounds of potash removed by continuous cropping for five years with wheat.

From other experiments the conclusion was drawn that where a naturally fertile soil is kept in good condition the necessary plant food is made available by decomposition and disintegration, and they also illustrated the fact that rotation puts the soil in the desired condition for promoting these chemical and biological changes. The experiments make the fact quite evident that one of the chief benefits of a rotation is, as has been stated, in its favorable influence upon the condition of the soil, so as to prepare the way for other changes.

Much stress is placed on the value of vegetable matter in the soil because the experiments indicate conclusively that a reasonable supply of vegetable matter will materially increase the yields. Vegetable matter may be added to the soil much more cheaply than commercial fertilizers and it will at the same time correct the mistake once made by New England farmers who depended on commercial fertilizers until their soils no longer responded sufficiently to pay for the fertilizers applied and then were forced to abandon their farms.

A number of people hesitate to begin the rotation of crops because they have the idea that it necessitates dividing the farm into small fields. While it is true that a certain number of fields are necessary to carry out rotation, it is also true that on the average farm a good rotation will provide fewer fields and better shaped fields than are used at present under the less definite systems of cropping.

When a plan of rotation is adopted the view of the farmer is changed. Instead of thinking only of the one crop he is seeding, he is looking ahead and planning to have that field prepared for crops one, two, or even ten years ahead. By knowing what will be sown on a field for several years in advance, labor may be saved, the yield increased and arrangements made for making the best use of the crops grown.

Washington, D. C.

G. E. M.

#### Have You a Crippled Horse?

Some time ago I wrote you in regard to my two-year-old colt having a bunch on his shin. Some called it splint and some said it was where he had cuffed himself. He was so lame I could not use him. I purchased a can of Absorbine, used it by rubbing it on two or three times a day. Have taken the bunch off and last night drove him and he is going sound as a dollar. Absorbine, a splendid preparation for bog spavin, thoroughpin, curb, shoe boil, capped hock, puffs and swellings, etc., is sold at druggists for \$2.00 a bottle, or sent express prepaid, upon receipt of price. Write for further information. W. F. Young, P. D. F., 268 Temple St., Springfield, Mass.

#### How to Judge a Range.

A booklet sent out free by the Arcadian Malleable Range Company, of Milwaukee, Wis., will be of great interest and value to every one who intends to buy a range, because this booklet, without fear or prejudice, betrays all the secrets of range making, and clearly shows the points you should carefully consider in selecting a range. A careful reading of this interesting booklet, undoubtedly will help you avoid ranges that are expensive fuel hogs, which also are always hard to keep clean, and unsatisfactory bakers. The Arcadian Malleable non-breakable range made by this company, received highest commendation from range authorities at the Seattle Exposition, and it is reasonable to believe that the Arcadian is such a thru and thru quality range, that the company need have no hesitancy in laying bare all the defects often found in ranges and to teach you how to avoid ranges which have them. The booklet is sent free to anyone on request, and it will save money for you if you are going to buy a

#### New Light on Rubber Shoe Making.

Crude rubber is sap from trees that grow in tropical countries, mostly South America. There are many grades of rubber. The best is pure Para, which comes from the valleys of the Amazon and Orinoco. The poorest grades come from Guatemala, in South America, and Borneo in the East Indies. When the crude Para rubber sap is taken from the trees it is smoked over burning nuts. It then gains a consistency which makes it of commercial value. It arrives in this country in large "biscuits," many weighing over 100 pounds each. These are put thru crushing and grinding mills and then thoroly washed and cleansed. When wholly dry it is properly compounded and made in rubbers which are then vulcanized to obtain the right wearing power. Altho pure Para rubber must be used to make the best rubber boots, etc., they could not be made of it alone. A rubber boot would not last, if made of Para rubber alone, because in its raw state it has no wearing quality. So rubber for boots and arctics has to be mixed with a compound in order to give it strength, just as an alloy of metals is used to strengthen and increase the wearing quality of gold. And while pure para must be used, much also depends on the method of compounding. This is done in the Mishawaka factory by only the highest priced experts to be had. Pure Para rubber is used by the Mishawaka Woolen Mfg. Co., of Mishawaka, Ind., in the making of their "Ball-Band" rubber boots, arctics and rubbers, which are famous for their unequalled quality and wear. This costs the manufacturers \$1,000,000 more every year than it would to buy the cheaper grades of rubber. In all these ways the Mishawaka Woolen Manufacturing Company has established and kept up the great reputation of the "Ball-Band" goods and made them known as the standard of rubber footwear quality, so that there are now eight million wearers of "Ball-Band" footwear, and 45,000 dealers who handle the line.

Officers of the Champion Potato Machinery Company report a very brisk trade on OK Champion Potato Diggers. Their large stock accumulated during the spring and summer months is now entirely exhausted. They are unable to fill the late orders for these popular machines. Their twenty transfer houses are at this writing entirely out of diggers. Many hundreds more could have been disposed of. The only source of supply is their daily output at the factory, and many of these are now being forwarded by express, as the farmers must have their crops out before the frost sets in. The company is now contemplating adding another addition to their factory, and have recently acquired two additional acres of ground. It has been the banner year for this enterprising firm. They have a neat catalogue, which will be sent to any and all inquiries.

The Sherwin-Williams Company is putting out a very handsome little portfolio of color plates entitled, "An Ideal Plan of Home Decoration." These color plates illustrate the complete color scheme for the decoration of an eight-room house, not only are correct color harmonies suggested as shown, but detailed specifications are given as to just how to secure these. This portfolio cannot help but be of interest to any of our readers who are building a new home or who are planning to remodel the old one. This Ideal Plan of Home Decoration was worked out by the decorative department of the Sherwin-Williams Company. This department which was originated a little over two years ago, is made up of a corps of expert decorators who are prepared to give free suggestions for interior and exterior decoration to anyone who is interested or who is building a home. The service is entirely free, and any reader of the Michigan Farmer can obtain the help of this department in their painting and decorating problems by simply writing to the Sherwin-Williams Company, Decorative Department, Cleveland, Ohio. In accepting the services of this department you do not put yourself under any obligation to buy Sherwin-Williams products, and it is well worth while to write to them and have them explain their plans of offering assistance.



## LIVE STOCK

### FEEDERS' PROBLEMS.

Will you please advise a beginner in regard to feeding shredded corn fodder as a winter roughage to breeding ewes and fattening lambs?

Hillsdale Co.

A READER.

Shredded corn fodder makes an excellent feed for breeding ewes but should not be used as the exclusive roughage ration. If the ewes are given one feed a day of corn fodder, all they will eat up clean, and one feed a day of clover hay or perhaps bean fodder, if it is available, they will need only a minimum amount of grain to keep them in a thrifty condition. A few roots are also an excellent thing for them to add succulency to the ration. If the roots are not available, a little bran or oil meal in the grain ration will prove beneficial.

Shredded fodder may be used for fattening lambs in much the same way but they will eat proportionately less of it on account of the heavier grain ration which is given them. Corn fodder is a palatable roughage and is liked by all kinds of live stock. Like corn, however, it is not a well balanced ration and should preferably be fed in connection with clover hay or other roughage which has a higher content of protein.

Shredded fodder is apt to heat and be injurious as a roughage unless the stalks are dry and well cured when shredded, but when properly cured it is a most valuable roughage for any kind of live stock.

### THE FARMER'S HOG.

In these days of high priced grain foods, the farmers and growers of market hogs are finding it very important that they feed a type of hogs that are capable of returning the largest profit possible on the food required to grow and condition them for market.

One of the first points to be observed in breeding hogs that will meet the requirements is uniformity, a class of pigs that will fatten up smoothly in connection with their growth and be ready for market at any time after they are six months of age. The large, coarse pig of the big-boned type and the little chunky fellow that stops growing and adds only fat, are two types of pigs that should be avoided by the farmer who expects to realize a reasonable profit from feeding his farm feeds to market hogs.

The whole problem may be summed up as follows: How shall we go about it to produce a type of hogs that will grow and fatten and at the same time attain a fair size, (and still retain quality), and shrink as little as possible when dressed for market. This type of a hog is only found among the improved breeds of swine and it is a waste of time and opportunity to look for it elsewhere.

The profitable market hog must possess a good, strong constitution, for without this no hog can make profitable gains and develop into a good market hog. The hog that possesses a good strong and vigorous constitution, is invariably extremely good thru the heart and chest, and here is where he lives, and he cannot be strong and vigorous if he lacks in this essential of development. He should have a good strong back, be broad and strong thru the loins, for it is a mere chance if we ever find a profitable market hog that is weak and poorly developed thru the loins.

The next point to be observed is the quality of the bone. Here is a point that I want to emphasize and bring out very clearly, for the fact that there is such a difference in the size and quality of the bone in various members of the porcine family, that it is a question in my mind if it is not of more real importance than any other point that I might discuss in connection with the farmer's hog.

Many farmers who are buying breeding hogs are demanding size of bone, they want large, coarse-boned hogs and will insist on having these or none. These men are making a serious mistake, as many of the most broken-down pigs we see are those big, soft-boned fellows. Buyers of market hogs avoid the big-boned hogs and select those with good, even bodies, with as neat bone as possible, and light offal as can be had, and this, they find in the hogs that possess medium bone.

After deciding upon the most profitable type of hogs to consume the products of the farm the next important question is, how are we to go about to produce such a hog, and here is the grand question of all. A question that has puzzled breeders

and farmers for many years and many of our eminent breeders have felt short of the mark in their efforts to produce an ideal type of a farmer's hog.

At the present time when good pure-bred hogs can be purchased for a little more than pork prices, it is utter folly to try and accomplish these ends by breeding anything but pure-bred hogs. No matter which breed you may select, the best individuals are none too good to produce the ideal type of farmers' hog.

In selecting breeding sows, keep in mind the type we have discussed and avoid animals that are closely inbred. The sows may be somewhat coarser and more rangy than the breeding boar; in fact, it is preferable that they be coarser and more roomy, for many experienced breeders believe that sows of such a type are better mothers than the smaller and more compactly built animals.

The next important step is the selection of a breeding boar that is suitable to mate with our herd of sows, and here is a matter that should be given careful study and attention as he represents fifty per cent of the breeding power of the herd concentrated in one animal and there is no other way than to accept this fact and select him accordingly. Keep him until you fatten some of his progeny and perhaps then you would not want to sell

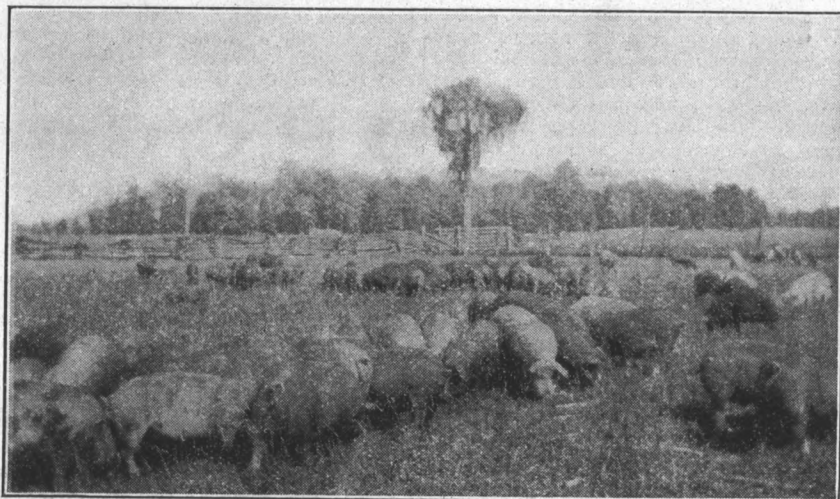
strength of bones, the two principal bones in each leg of each animal were removed and broken in a machine. There were four pigs fed in each lot, making the figures given the average of the breaking of 32 bones in each lot. The average breaking strength per 100 pounds, live weight of hogs after 22 weeks' feeding was as follows:

Lot 1, corn .....	325 pounds
Lot 2, corn and shorts .....	396 pounds
Lot 3, corn and skim-milk .....	509 pounds
Lot 4, corn and tankage .....	580 pounds
Lot 5, corn and ground bone .....	681 pounds

Washington, D. C. G. E. M.

### FEEDING CORN WITHOUT HUSKING.

It has long been the custom in this vicinity to husk all the corn some time in the fall, including both the large and small ears, to be fed to cattle, either whole or ground. This, of course, necessitates considerable labor which, at the present time is scarce and high. In view of this fact, and perhaps some minor considerations it does seem as if a better way might be practiced, especially where cattle are kept. I think there is actually more loss, waste and expense in disposing of the corn crop than any other cereal grown in the north. From the time the ground is fitted in the spring until the farmer shovels the finished grain



A Bunch of Good Hogs on Feed in an Ohio Clover Field.

him at any reasonable price. We cannot place an accurate estimate upon the value of a breeding boar until we see how his progeny mature.

With good-sized, smooth sows belonging to the large class of mediums and a breeding boar of compact build and good proportions, we will be able to produce as profitable a type of hogs as can be produced for farmers and feeders, providing, of course, that we give our breeding animals and pigs good care and plenty of nutritious food.

Another point in breeding the profitable type of farmer's hog we must give our breeding animals sufficient time to develop sexual powers, so that they may reproduce themselves in form and constitutional vigor and abandon the practice of hurrying the breeding sow into the fattening yards as soon as their pigs are weaned and placing another bunch of youngsters in the breeding pens to take their places. This practice is carried on by thousands of farmers who are complaining about the quality of their hogs and still they go on, year after year, breeding money out of their pockets instead of in. Such a system of breeding cannot produce a profitable type of a farmer's hog.

When we have a good sow that has proven her ability to raise and properly nourish a good-sized litter of the right kind of pigs, we should keep her as long as she is a profitable breeding animal, and not sell her and put a young and untried sow in her place. If we make a practice of gradually disposing of the old sows and keeping a few of the choicest gilts from the best sows to replace these old sows, we can keep our herd up to a high standard. The same may be said of the breeding boar, if he proves himself a good and reliable breeder, keep him as long as possible without inbreeding. Good strong pigs from well matured sires and dams will make better gains in the feed lot than pigs from immature breeding animals.

New York.

W. MILTON KELLY.

### EFFECT OF FOOD ON STRENGTH OF BONE IN PIGS.

Experiments conducted at the Nebraska Experiment Station show very marked increase in the strength of bone when tankage or ground bone is fed to pigs in addition to corn. In determining the

product to the cattle or hogs, there is one continual round of labor and expense, and we might add, anxiety. The grain is left too long in the shock before being husked and drawn under cover or perhaps a portion is left uncut so long that it has so withered away by the action of the sun, wind and frost as to be practically worthless. It is so left either because the owner is negligent or because in his judgment some other duty is more urgent. But having cut the corn it is up to us to get the maximum profit at the minimum outlay for labor.

I have for several years made a practice of husking only the large or fair sized ears, leaving the balance to be fed in the stalk. A little grain is, of course, lost in the droppings but most of this is picked up by the hens, or sometimes pigs are kept for this purpose. This not only saves much labor but gives the stock a better balanced ration as they eat the husks along with the grain. I do not claim that cattle will necessarily fatten on it as rapidly as ground cob meal, but so far as the small immature corn is concerned it is certainly better than to husk it when it may still further be lost from shrinkage, mice or other agencies before reaching the animal's palate.

I usually have a part of my corn field planted too thick to ear much, then have it cut with a harvester and if there are any light spots in the regular field I cut and bind it by hand. Then, by getting the fodder under cover in good season—not too early or it may heat, but late in fall or early in winter and stowed away in a loose mow, it ought to give good results in feeding. Better still, to stand the bundles on end in a shed or barn floor as in this way there is less danger of heating.

Ohio.

H. E. WHITE.

A fine crop of corn is reported in all parts of northern Nebraska, even extending into the sandy regions, and it is learned that cattle feeding promises to be as large as usual, the only drawback being the scarcity of stock hogs to follow the cattle. The prevalence of sickness has resulted in a small supply of hogs, while the high price of corn has had a tendency to curtail hog breeding.

Reports from Fort Collins, Colorado, are that the outlook for lamb feeding is very poor. There is not two-thirds of the hay that was cut last year, and the third cutting of alfalfa was almost nothing, the grasshopper having eaten it. Corn is high, and so are feeder lambs.

The doctor says you have got to take Cod Liver Oil—if so, why not take it in the easiest and best form—why not take

## Scott's Emulsion

That is what the doctor means. He would not force you to take the crude oil when he knows the Emulsion is better—more easily digested and absorbed into the system—and will not upset the stomach like the plain oil.

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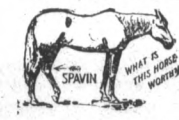
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REG. TRADE MARK



No promise of result impossible to perform or false testimonials to mislead you. You cannot mistake the certainty of its unflinching and unequalled power or the security of our guarantee.

I used bottle of "Save-the-horse," which I got through Mark Cross Co., New York, and our horse that was lame for a year with spavins is now sound. Kindly send two bottles by express C. O. D., soon as you can. Very respectfully, JOHN LANCY,

175 So. 12th Street, Tacoma, Wash., June 24th, 1909. Troy Chemical Co., Binghamton, N. Y.—I used your "Save the-horse" on my horse, a valuable driving animal, for a spavin of two years' standing and the horse now shows no signs of lameness and is perfectly sound even with hard work on paved streets. It is surely a great remedy and did great work for me. Very truly yours, FRANK ALLYN, JR.

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

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## PRESERVING THE MORGAN HORSE.

If there is any animal which is the friend of the small farmer, it is the Morgan horse, which, not so long ago made good from drawing the entire family to church on Sunday to hauling the big loads of hay from the meadows on a week day. In 1904, the late Senator Redfield Proctor, chairman of the Senate Committee on Agriculture, called the attention of officials of the Department of Agriculture to the necessity of saving the Morgan horse from extinction.

Morgan breeding was arranged for in co-operation with the Vermont Experiment Station in the following year on the farm of the station, but no purchases were made, however, until June, 1906, when seven mares and two fillies were purchased from various persons in Vermont by Mr. Cassius Peck, of the Vermont station, Professor Curtiss and Geo. M. Rommel, Animal Husbandman of the Bureau of Animal Industry. In making the selection for the Morgan stud the effort was made to get the true Morgan type with an increase in size and quality over that possessed by the old Morgan. However, type was not sacrificed to size. After this purchase in Vermont, two mares were purchased in Kentucky as an experiment, its idea being based on the belief that a careful outcross would give increased size and quality without being violent and likely to destroy desirable type characteristics. The Kentucky purchase caused considerable comment on account of its novelty, one critic going so far as to say that the department was attempting to restore the Morgan type by the same method used to destroy it. The officials of the department claim, however, that if the Kentucky breeders of fifty years ago found it to their advantage to go to Vermont for Morgan horses of good type to use on Kentucky stock, and if the use of those horses proved valuable, two things were made clear. First, that the Morgan blood is of the greatest value to the horse industry of the country; and second, that the restoration of the Morgan can be greatly furthered by taking back to Vermont and other New England states some of the best of the descendants of the original New England stock and restoring the system of breeding to type which was abandoned with the development of the speed-at-any-cost idea.

The stallion, General Gates, and a filly out of one of the original mares were purchased July 1, 1907. General Gates was purchased after due consideration; the selection was made not only on his own individuality as a modern Morgan, but on his ability as a sire of the type desired. Mated to mares of various types, he produces foals that are easily recognizable as being sired by him. His son, Shakespeare, was the champion Morgan stallion of all ages at the Louisiana Purchase Exposition, and his daughter, Carrie Gates (now owned by the department), was first at that show for two-year-old mares. Men who were well acquainted with Vermont Black Hawk, one of the greatest Morgan horses of his time, declare that General Gates resembles him to a remarkable degree.

The work in Vermont was given a great impetus early in 1907 by the presentation to the department by Mr. Joseph Battell, of Vermont, of a 100-acre farm, on which the work could be carried on to better advantage than on the farm of the Vermont Experiment Station at Burlington, where the soil is very sandy and not entirely suited to horse breeding. Since the department acquired the property considerable fencing has been done, paddocks have been built and the buildings standing at the time the gift was made, remodeled and repaired. All the horses are now located at this farm, the plant at the Vermont station being held in reserve as a possible substation in the future.

"The aim of the stud at Middlebury," states Mr. George M. Rommel, Animal Husbandman of the Department of Agriculture, "is to preserve the Morgan type at its best, keeping the splendid conformation, spirit, and endurance for which these horses are famous, and eliminating the tendency to coarseness, heavy withers and low backs. A careful effort will also be made to improve the action by getting away from the chopiness and irregularity in gait, and particularly by eliminating the tendency to pace and mix gaits. Size will be increased carefully by selection, but it is not our purpose to make the Morgan a big horse. A size ranging from 15.1 to 15.3 hands is sufficient, with about 15.2 as the ideal. However, this will not by any means disqualify a 15-hand horse or one even somewhat smaller, provided he has desirable characteristics of conformation, quality and action. It should

be clearly understood that the work with the Morgan is not to be merged into that with the American carriage horse. Altho the Morgan has always been and probably always will be a prime factor in the production of carriage horses, the type should be kept distinct."

Washington, D. C.

G. E. M.

## GOING INTO SHEEP.

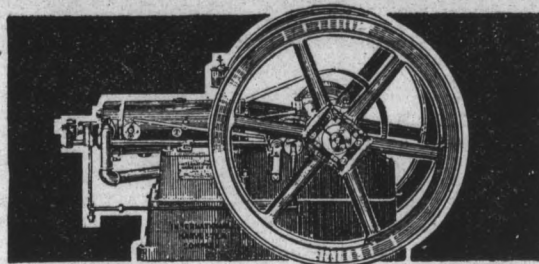
When the tide is high, and the prospects bright, it is a prominent characteristic of the American people to dash head-long into the sea of enterprise without full consideration of their terminative end, depending to a large measure upon faith to successfully return them to harbor. Experience has been said to be a most excellent teacher, but there is something peculiar about Americans that does not permit of their reaping the full benefit of so fruitful a harvest.

Going into sheep is a question that has been gradually taking on new life. A few years ago the country was flooded with sheep. It was almost impossible to look in any direction in progressive farming communities without seeing large flocks pasturing upon the green meadow and hills, but today conditions have changed decidedly. Those once symbols of prosperity have gradually given way to the production of crops. We are now, just awaking from a second Rip Van Winkle dream and comprehending where we are "at." It always has, and will take time to judge the past and receive the lesson it teaches. We now say the farmer is fortunate who has "stuck" to it and retained his sheep. That is the way things generally terminate. The man who follows his occupation because he loves it is the man who wins out every time. So it is with the present sheep situation. A great many farmers are asking themselves the question, "Shall I go into sheep?" High prices always stimulate new interest and influence thousands of people to enter upon work they have no particular adaption or love for. It has been said, that the love for an occupation is half the battle of accomplishing success. When an old enterprise takes on new life, a great many farmers dash head-long into the business without stopping to consider whether they are adapted to successfully pursuing that particular line of work.

In every line of work there are certain periods of prosperity and depression. If an enterprise is pursued without consideration to these facts, there is a time coming, when on account of low prices, one loses faith in the work. The result is, he goes out and into something else. The man who enters upon his work for the enjoyment he may derive from the enterprise, accompanied by what it will return financially, is the one who will stick to the business and reap bountifully of the harvest.

In solving this problem of going into sheep, then, there are several factors of influential importance that should be carefully considered before action is taken. In the first place, make certain that you are adapted to the work. Then if your conditions are favorable and you have a love for the work of handling and caring for the flock and have the intention of staying in the business for years to come, go ahead, exercising every precaution to select nothing but the best for your foundation stock. Every farm is not adapted to profitable sheep husbandry. Some are far better adapted to other lines of live stock production than sheep. The mode of farming and arrangement should be taken into account. The kind of crops grown and the nature of the soil relative to their production. Sheep, in order to be at a maximum production, must be well grazed during the summer months. If the nature of soil is such that a large percentage of moisture can not be retained for production of green, succulent forage for pasture, then sheep raising for profit is decidedly handicapped. Sheep are liberal grazers and require such to prove profitable. Soils of the light sands or gravelly nature are frequently productive of poor results. There are numerous other influences entering into the solution of going into sheep that should be well considered before taking up the enterprises. Every farmer must settle this matter for himself. There is no better state in the union than ours for the production of sheep products. Let us all, who feel we are adapted to the work and have a love for the golden fleece, endeavor to make Michigan the foremost sheep raising state. We have the climate, the soil, the pasture and perseverance if we will unite them in the accomplishment of one purpose.

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"Prosperity for all"A RELIABLE POWER  
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Sit down and figure the price of labor by the year; calculate what it costs to feed a man; include your losses when you could not find help in busy seasons; and it won't take long for an International agent to sell you an,

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one of the farmer's own line. When he explains its varied uses; its simple construction; how cheaply it can be operated; and how long it will render service, it won't be a question as to whether you can afford one, but how you ever got along without it.

Go to our local agent and look over the line. It includes an engine for every section and every problem; of all sizes and all costs, for all farm uses—vertical and horizontal (both stationary and portable); engines on skids; sawing, pumping and spraying outfits. It also includes I. H. C. gasoline tractors—first-prize-gold-medal winners—the best all-around farm tractor by test. Information regarding I. H. C. engines will be cheerfully given by the local agent; or, if you prefer, write to us direct for catalogue, prices and details.

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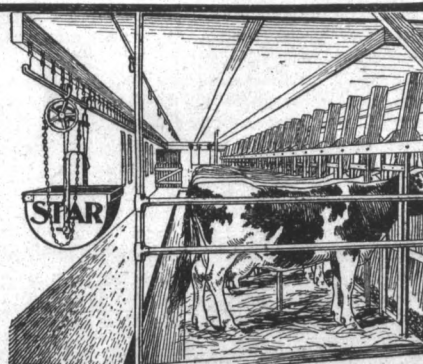
Also increases value of manure by preventing waste of liquids. You say, "Yes, I need a Litter Carrier, but I don't know what it will cost." Well, if you will write us, we will tell you what the cost will be.

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## WHITEWASH THE STABLES.

It is generally understood that many of the most disastrous diseases that come to our herds of live stock are caused by germs of one kind or another that may remain dormant for years in litter about the stables. Such are hog and calf cholera, lump jaw, navel ill, infectious abortion, tuberculosis, etc. There are also parasites that infect the barns which cause barn itch, scab, mange and kindred diseases. It is, therefore, of the utmost importance that the barns be made clean and kept as clean as possible.

In cleaning the stables, go over the boards and walls with a stiff brush or broom to remove the cobwebs, dirt and litter that it attached to them. I have seen stables where the ceilings were so festooned with cobwebs that the boards above were almost hidden from view. Such accumulations are filled with millions of germs, many of which are disease promoters.

After having cleaned the boards and walls, then they should be given a thorough dressing of some dependable sheep dip, and then one of lime and salt.

A spray pump is an ideal implement with which to apply the lime and salt mixture, but a cheap brush or an old broom will answer the purpose very well. Lime and salt are cheap, and one should not be stingy with them. I would suggest slacking at least half a bushel of fresh lime, with hot water, in a barrel and afterward add sufficient water to the mixture so that it will spread evenly and easily. The addition of a half gallon of salt will make the whitewash stick to the boards and stone walls. It is an advantage to apply the lime and salt mixture while it is still hot, especially during cold weather.

It is very necessary that the barns and out-buildings be given this cleaning before the live stock go into winter quarters. It will add to the appearance of the buildings and also be of very great assistance in maintaining the health of the live stock.

Illinois.

W. H. UNDERWOOD.

## LIVE STOCK NOTES.

A live stock authority points out that the supply of young hogs is so greatly lowered that high prices are assured for another year. Holding young hogs back will, by minimizing supplies in the markets of the country, greatly aid in holding up prices for swine. Keeping corn on farms and utilizing it for fattening hogs will reduce the available supply of the grain in the markets, and thereby assist greatly in sustaining the price of that portion of the crop sent to market. Corn cannot be maintained at a high price with the big end of the crop marketed. It is still high, yet cash corn has had a drop of about 20 cents a bushel from top prices of a few months ago.

A veteran hog seller in the Chicago market says that he has no doubt that hog receipts will increase materially in November and December, but he still looks for much smaller supplies than a year ago. He adds that between now and the holidays concerted action upon the part of the packers is likely to force the top price down to \$7 per 100 lbs. and he expects to see packing droves hot for \$6.75. Around these figures he is confident that competition will be very keen, and this will embrace the large number of independent packers, as well as the eastern shippers, and when the advance starts he predicts that prices will be run up much faster than the Chicago hog sellers will relish.

Hundreds of western farmers are making the serious blunder of selling off their light-weight hogs at a time when there is the biggest kind of a premium paid for fat, heavy swine. Future prospects are such that it is the best policy to hold the hogs that are putting on fat, and selling lots that weigh under 190 lbs. is a grave error, for they are the worst of sellers, buyers clamoring for weight. Even if hogs that weigh well under 200 lbs. are fat, buyers insist upon securing them at a liberal discount, and consignments weighing below 190 lbs. have been poor sellers in the Chicago market recently at anywhere from \$7.40@6.90, while the best hogs with plenty of weight were quick sellers around \$7.80@7.90. Leading live stock commission firms at the Chicago stock yards have been advising farmers to hold their light hogs at least until next January, and they advise feeding thin old sows for thirty days or so, these having sold recently at \$7.30 or thereabouts. Grassy underweights in both western and eastern markets and thin grassy sows have been forming a greatly increased percentage of the offerings at a time when they are not wanted. Even with corn selling around 60c a bushel, farmers should not hesitate about feeding it to their hogs. Brood sows at this time should be given the best of care, for hogs are the biggest money-makers on the farm, and farmers cannot get rich any faster than by having from fifty to one hundred fat heavy hogs for marketing every year. There is good reason for hogs selling at the highest prices recorded in twenty-seven years, for there is a material falling off in the supply of young hogs everywhere, and from all directions there are demands for stock hogs, with hardly any offered for sale. It will be seen readily that this state of things does not end with hogs, but farmers will be inclined to feed fewer cattle, with no hogs to follow.

## 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.

Inflamed Udder.—I have a heifer that is due to calf Nov. 16; her udder appears to be caked. I would like to know what to put on it. H. E., Montague, Mich.—Reduce her food supply about one-third. Keep her bowels a little active by feeding her plenty of salt or epsom salts, but do not purge her. Apply hot vaseline or camphorated oil to udder once a day.

Indigestion.—I have a mare that has just foaled and lost her colt. She is very thin and weak, but has a good appetite and seems to eat plenty. What can I give her to bring her up and improve her condition? P. T. H., Decatur, Mich.—Give ½ oz. powdered quassia, 1 dr. ground nux vomica, ½ oz. ground gentian and ½ oz. powdered charcoal at a dose in feed three times a day.

Cow Dislocated Stifle by Getting in Mire.—A week ago I found one of my cows in the mire with a stifle out. I called our local Vet. who replaced the bone and blistered it, thinking it would strengthen the ligaments, but she is no better. Is there anything I could do that will help her? J. L. T., Brighton, Mich.—The stifle bone should be put into place, the cow placed in a position with the hind feet five or six inches higher than fore; besides, a collar should be placed on the cow, or a surcingle, the hind foot tied forward so as not to get beyond an upright position. Also apply cerate of cantharides to stifle often enough to keep the eparts blistered.

Mare Had Miscarriage.—I have a mare that foaled last spring; was bred again in due time and so far as I know got with foal. A short time ago she aborted; since then has had a white discharge. I am unable to account for her having a miscarriage. What had I better do? L. V. J., Walled Lake, Mich.—Your mare should have good care, be fed a good quality of food and plenty of it. Also give 30 drops carbolic acid in a quart of water daily for 30 days. Also inject her with the following lotion: Put a tablespoonful of carbolic acid in ½ gal. of tepid water and wash out uterus and vagina thru a soft rubber hose with funnel on end, once a day. Before doing so you had better wash out the parts with tepid water at a temperature a little warmer than the body.

Colic—Indigestion—Cough.—I have a 6-year-old horse that has had frequent attacks of colic since I turned him on grass. He also has sick spells when fed much grain; he also breathes a little heavy. I wet his hay and give him condition powder, but he is troubled with a cough and is inclined to be colicky. J. M., Whittemore, Mich.—Your horse should be fed a good quality of easily digested food. His colicky pains are the result of indigestion or a fermentation of the food he eats. Now the best way to overcome a difficulty of this kind is by feeding food that is not so likely to ferment after it is eaten. Give 1 oz. powdered charcoal, ½ oz. ground ginger and ½ oz. ground gentian at a dose in feed two or three times a day. Very little can be done to prevent an ailment of this kind when a horse is running on pasture; however, you must remove the existing cause if possible, which consists in changing the food supply.

Snagged Foot—Swollen Pastern and Fetlock.—I wrote to you some time ago but did not sign my name. I failed to notice a reply to my letter, which is proper according to the head lines of your veterinary department. I have a 2-year-old filly that snagged her foot July 6, which caused the sole of foot to slough out; however, the foot healed nicely, but has left the pastern and fetlock swollen. When she stands in stable over night the lower part of leg stocks considerable. I have tried to feed her powders, but with poor success. F. H., Allen, Mich.—The veterinary department of this paper is published for the sole benefit of our subscribers and our only means of knowing who they are is by them giving their full name and postoffice address. We never publish more than the initials of their name, but must insist that the name and address be given us; this will insure you a reply, otherwise they are not answered. You deserve credit for having treated the case so successfully. When the sole of a foot suppurates and sloughs out it is no easy matter to bring about a recovery. The stocking that takes place in pastern and fetlock is only local and in time that will disappear. You had better give ½ dr. iodine potassium and a tablespoonful of powdered rosin in feed once a day. The colt should be exercised daily and fed food of a laxative nature. Dissolve ¼ lb. sugar lead in a gallon of water and wet the part of leg that stocks, night and morning.

Leucorrhea—Ewe Ejects Food.—I have a mare that I wish to breed, but she is troubled with a white discharge which I think must be the whites. What can I do for it as I am anxious to breed her this fall. I also have a ewe that spits her cud out; she seems to be lively, but somewhat thin. O. B. P., Ypsilanti, Mich.—Give your mare a tablespoonful of bicarbonate soda and a tablespoonful of powdered sulfate iron at a dose in feed three times a day. Wash out the womb and vagina, using a soft rubber tube with a funnel attached, thru which pour warm water at a temperature of 115 degs. until it comes away clear. You should make sure that the treatment reaches the

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womb. Dissolve 6 drs. sugar lead in 1/2 gal. of tepid water and use this quantity to flush out uterus and vagina. Try and have her retain this solution for ten minutes. This is best done by elevating her hind quarters about a foot higher than the fore, then in order for her to get rid of it change positions with the fore quarters the highest. After using the lead lotion two or three days, use carbolic acid and water. Put three table-spoonfuls of carbolic acid in 1/2 gal. of tepid water, but use this quantity daily, but before doing so you had better wash out the parts with warm water; however, the water should not be hotter than 115 or 120 degs. It is needless for me to say that it is important to feed the mare a good quality of food and plenty of it; besides, it is important to keep the bowels open and try and get your mare in a thrifty condition, for so long as she has a vaginal discharge she will not get with foal. Now, regarding your ewe that ejects food from mouth. If you will examine the mouth you will perhaps find something wrong with her teeth, or there may be some foreign body lodged in back part of mouth which, when removed, will correct this trouble at once. Drugs will not help such cases for it is usually the result of an existing cause such as I have mentioned.

Sitfasts.—I have a 3-year-old colt which when working last July got a sore neck and shoulder. There are now several small bunches on his shoulder, but none of them raw. His mane is not very heavy and I have not used a sweat pad. I have applied salt and water once a day and used vaseline to grease with. I have not consulted a Vet, but the colt bothers me a great deal when I hitch him. He is so annoyed and nervous that one of my men knocked him down a short time ago, but that did no good. J. P. C. Munith, Mich.

Some horses are exceedingly sensitive when they have sore shoulders or neck and there is no better plan than to be kind to them, for the horse cannot avoid it. Such bunches as you speak of should be removed with a knife then the shoulder will get well, for the bunches act as an irritant and are doubtless painful when pressure is applied. However, if you are so situated as to require his work at present it might be well enough to delay cutting these bunches out. However, in my practice I usually cut them out and find the animal gets instant relief for there is very little pain from a skin wound and this is all you have to make in removing them. So, all things considered, cut them out and apply the following lotion three times a day: Apply a small quantity of peroxide-hydrogen to sores; ten minutes after each application apply equal parts iodoform, oxide of zinc and powdered alum.

Acute Indigestion.—I have a 9-year-old horse which I purchased about three months ago. When I bot him he was thin; turned him out on grass and gave him two quarts of oats twice a day, but he has failed to gain in flesh as rapidly as he should have done. About five weeks ago I drove him to town and while there was taken very sick; every one that saw him said he would die. He acted as if he had been choked on something, panted and stood with head down and nose discharged about two quarts of a foamy substance; had to leave him with the Vet. until next day. About a week ago drove him again and was taken sick the same as before. The first symptoms noticeable is panting and he is inclined to lie down, but the Vet. tries to keep him on foot for fear he would never get up. The Vet. says he has indigestion and a little heart trouble. What had I better do with him? F. E. D. Lyons, Mich.—Your horse no doubt suffers from acute indigestion, the result of what he is eating. A change of food will perhaps help him. It is important that you feed him easily digested, clean grain and his fodder should be well cured. Give him a tablespoonful of ground ginger, a tablespoonful of ground gentian, a tablespoonful of bicarbonate soda and two tablespoonfuls of powdered charcoal at a dose in feed two or three times a day and when you are going to drive him don't feed him any grain the morning you drive him. He should be watered always before feeding him grain and not closer than an hour or two afterwards; besides, when he is on a journey avoid watering him and if you do, stint his allowance. It is possible that he has had similar attacks before you purchased him.

Swollen Sheath—Dropsy.—I have a horse that must be about 14 years old that is troubled with a swollen sheath and considerable swelling on lower part of belly; besides, his legs appear to stock when standing in stable, but the swelling in the limbs appears to leave after he is driven awhile. His appetite is fairly good, but he does not lay on flesh. I have given him several different kinds of condition powder, but fail to see much benefit from them. J. F. H. Bad Axe, Mich.

It is possible that you should change the feed. Also give a tablespoonful of the following compound powder: One part powdered sulfate iron, 1 part ground gentian, 1 part ground ginger, 1 part fenugreek and 1/2 part ground nux vomica by weight. These drugs should be mixed together thoroughly and a full tablespoonful given at a dose three times a day. Also give a tablespoonful of powdered salt-peter at a dose in feed once a day for ten days.

Pigs Have Stomach Worms.—We have lost several young pigs below three months old and their death is no doubt the result of stomach worms, altho they may have some bowel worms for I have noticed worms pass them a foot long. These pigs are in fairly good condition, but there are days when they do not eat as well as they should. E. P. M., Unionville, Mich.—Give your pigs 10 or 15 drops turpentine in 1 oz. castor oil once a day for a few days until their bowels move freely, or you may give them 1/4 oz. fluid extract spigella and senna every four hours until it causes purging, then discontinue its use for ten days or two weeks, then treat them again. You will find benefit from feeding pumpkins to wormy hogs, also feeding carrots has a tendency to destroy worms.

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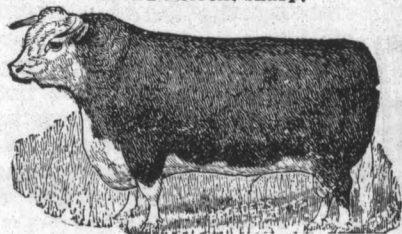
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18 fresh cows with calves at side, 5 bulls, 19 heifers. One of the best Dual Purpose Herds in America; Cows that carry plenty flesh and are extra milkers. Most of the cows are sired by Imp. Bapton Magna, 206889. The heifers and calves by Mara Victor 261383. Remember I bred the best milking S. H. cow in the World's Fair Dairy Test at St. Louis, 4th and 5th at Chicago. Every Shorthorn in the herd was bred by me except 2 cows and the herd bull Mara Victor. You can buy them at your own price as every one will be sold. Write for catalog to CALVIN LOVETT & SONS, 1009 James St., Kalamazoo, Mich. AUCTIONEERS—Col. G. M. Isenhamer, Col. E. K. Conrad, Col. F. B. Lawrence.

## AUCTION

I will sell at Public Auction, at my farm in Maples Grove township, Barry Co., Michigan, on  
Tuesday, Nov. 2d, '09

At 11 o'clock, sharp.



## 20 Reg. Hereford Cattle

Some good young cows with calves at foot, others safely bred. These calves are from my show bull Keep On's Ideal, by Keep On 26th; he by Imp. Keep On. Cows are bred to him, and are good ones. Also 4 REGISTERED HEREFORD BULLS, from 14 to 18 months old, good ones, sired by Keep On's Ideal. This stock is in good condition and is very nicely bred. They will be sold regardless of prices. LOUIS NORTON, P. O.—Quimby, Mich., R. F. D. 1. R. R. Station—Nashville, Mich. Citizens Phone—4-16, Lacey, Mich.

## TUESDAY, NOV. 2, AUCTION SALE

of SIBLEY BROS., on Alfred Peterson farm, 1/2 mile north and 1 mile east of Custer, Mason Co., Mich., at 10 o'clock. 200 pure bred and registered Rambouillet ewes; 50 Shropshire ewes; 25 Hampshire Rambouillet ewes; 25 lambs; 1 Hampshire ram, registered; 1 Rambouillet ram; 1 Shropshire and 3 Hampshire Rambouillet rams; 2 milk cows and 1 Shorthorn bull calf. We got our sheep from the Baldwin Sheep Co., of Hay Creek, Oregon. They are healthy and acclimated to Michigan.

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JERSEY BULL CALF born Mar. 13, '09. 2nd calf of a heifer that gave 8224 lbs. of milk in 1 year; first calf as 2-year-old, fine individual. THE MURRAY-WATERMAN CO., R. 6, Ann Arbor, Mich.

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Have a fine lot of spring pigs, both sexes. The type for profitable pork production. Vigorous and strong and of best blood lines. Satisfaction guaranteed. F. A. BYWATER, Memphis, Mich.

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Two Boars, do for fall service. A few Glits left. Also a fine lot of fall pigs ready for weaning. Either sex or pairs no kin. A. A. PATTULLO, Deckerville, Michigan.

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

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## THE DAIRY

CONDUCTED BY COLON C. LILLIE.

### THE FOURTH NATIONAL DAIRY SHOW.

The Fourth National Dairy Show which opened on Thursday, October 14, in the city of Milwaukee, in the new auditorium, began under very favorable circumstances. Governor Davison, of Wisconsin, presided at the opening exercises. The governor, during the afternoon, had gone thru the entire exhibit and was very much pleased with the show. He stated that he had no idea that the National Dairy Show had such a comprehensive scope and was so extensive and covered such matters of interest to the general public. In his opening remarks as chairman, he expressed a desire to have the Show become a permanent fixture to Milwaukee and Wisconsin. He said if the people of Wisconsin and Milwaukee thru their non-support, allowed the dairy show to locate in some other city in the country, they were not living up to their best interests. Wisconsin being a great dairy state in the Union, Milwaukee being the metropolis of that state, and Milwaukee and Wisconsin surrounded by a great dairy section, that the National Dairy Show Association ought to be located permanently in Wisconsin.

Judge Carpenter was introduced as representing his Honor, Mayor Rose, who was unable to be present. Judge Carpenter gave a very fitting address, welcoming the Dairy Show to Milwaukee. He said some of the best men in the country came from the farm and they became our best men, largely because they received proper training on the farm. The Dairy Show would furnish an opportunity for these former citizens of the country to renew their affiliations in part with agricultural life. But the Dairy Show meant much to the city of Milwaukee and ought to be supported heartily by her citizens and he had no doubt but it would.

Governor Davison then introduced President of the National Dairy Show, Colon C. Lillie, who responded to the address of welcome by Judge Carpenter. President Lillie stated that on behalf of the National Dairy Show Association and on behalf of the allied interests of the dairy industry which supported the Dairy Show, he desired to express their appreciation of the kind welcome which Judge Carpenter had given to the Dairy Show Association. He said the Dairy Show Association came from Chicago to Milwaukee and he wanted to state that the atmosphere in Milwaukee seemed to be more congenial for dairying and the dairy industry than it did in Chicago. Ever since the headquarters of the National Dairy Show Association had been located in Milwaukee the business men and the citizens of Milwaukee had done everything possible to advertise and assist in making this the banner meeting of the Association. He complimented and thanked the press of Milwaukee for the stand it had taken. Never before had the Dairy Show received the support of the local press like it had in Milwaukee. The newspapers had done their duty and he believed the forthcoming dairy show would be the most successful of any ever held. Governor Davison, in his introductory remarks, expressed a desire to have the Dairy Show permanently located in Milwaukee. If Milwaukee and Wisconsin wants the dairy show, it is up to them. The board of directors considered carefully the location of Milwaukee before they left Chicago. They realized that the state of Wisconsin, being a great dairy state the state of Ex-Governor Hoard, who had probably done more for dairying in this country than any other living man, that they would receive a warm welcome from Wisconsin. They did not know, however, about the welcome they would receive from the business men of Milwaukee. To make the Dairy Show a success there must be local attendance, and there must be a popular sentiment in its favor. Ever since the headquarters had been located in Milwaukee, the management of the Dairy Show had no reason to complain. The citizens' business league and the merchants' and manufacturers' association have done everything possible so far to help create a local interest in the Show. The attendance that evening showed that their efforts had not been in vain, for at no time in the history of the show was the opening so well attended.

President Lillie said that the Dairy Show was worthy of the support of Wisconsin and Milwaukee. The exhibition

which they saw before them there was but a beginning of what might be accomplished. An industry which produced annually over \$800,000,000 of goods could make a show, if properly aroused, that would make any city proud of it. If Milwaukee and Wisconsin would be loyal to the National Dairy Show Association, the National Dairy Show would be as great an event to the city of Milwaukee as the international is to the city of Chicago. The National Dairy Show will make Milwaukee the Dairy Capitol of the country, the Mecca of the Dairy industry. He also stated that a certain product manufactured in the city of Milwaukee by an enterprising company had made Milwaukee famous, but if Milwaukee and Wisconsin will be loyal to the Dairy Show, the Dairy Show will bring to Milwaukee even more fame than has Schlitz.

### COTTONSEED MEAL OR OIL MEAL WITH COB MEAL AND CORN STOVER FOR ROUGHAGE.

I will be shy of clover hay this winter. Will Mr. Lillie advise which is preferable to feed, cottonseed meal or oil meal with cob meal and middlings, and how much of each by weight? Corn stover will be fed for roughage. I consider bran too high at present price for part of the ration.

Montcalm Co. D. DELEHANTY.  
As long as you have no corn silage or clover hay, I should certainly feed oil meal in preference to cottonseed meal, because most all of these feeds are slightly constipating and cottonseed meal would make the ration much more so, therefore, I would use oil meal, which is really a little laxative and would give you better results. I would mix the grain in the proportion of 2 lbs. of oil meal to 5 lbs. of corn-and-cob meal and then feed in proportion to the amount of milk which the cows give. For ordinary dairy cows about 7 lbs. of this would make a ration. For real good cows you could increase this just as long as it is possible, and no one can tell how much, only a careful feeder.

### OATS AS A GRAIN RATION, WITH CORN SILAGE AND CLOVER HAY AS ROUGHAGE.

Would you please answer the following questions thru your paper? I have good corn ensilage with plenty of grain in it, good clover hay and ground oats. Can I with this make a good balanced ration? And how much of the mixture should be fed at a time?

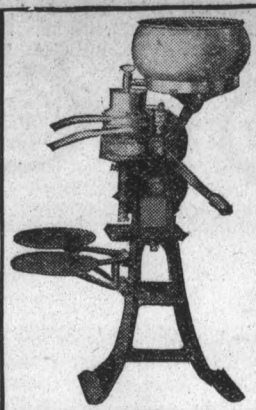
Osceola Co. L. K.  
Cows will do very well upon this ration, but it is not a model ration. It does not contain enough protein. You cannot balance a ration of corn silage and clover hay with ground oats as a grain. The oats are not rich enough in protein, altho they are a splendid food for animals. I would advise feeding 2 lbs. of cottonseed meal per day for each cow and about 4 lbs. of ground oats. You can mix the cottonseed meal and oats in that proportion, 1 lb. of cottonseed meal to 2 lbs. of ground oats, and then feed about 6 lbs. per day.

If you have extra good dairy cows that will make good returns from their feed, this amount can be increased and you alone can tell how much. At the present price for oats I am inclined to think that it would pay to sell the oats and buy cottonseed meal and oil meal and feed 2 lbs. of cottonseed meal a day and 2 lbs. of oil meal. The 2 lbs. of oil meal a day will more than take the place of the 4 lbs. of ground oats fed in connection with clover hay and corn silage.

### THE KNOW HOW OF DAIRYING.

One of the main causes of failure in dairying is guess work. The amount of butter-fat produced by each member of the herd should be determined by actual test and not by guess. If you have not made a test of your cows there are some surprises in store for you. It is a common experience to find that the most promising looking cow and the one you guessed to be the best, was the worst, while the cow of unpromising appearance proved to be the best. Dairymen who are not making the business pay as it should, do well to apply the Babcock test. Don't have any guess work about the stables. Don't guess that this or that is right, but know that it is right. Know that your help is gentle with the cows. Know that each cow has fresh and dry bedding each day. Know that each cow receives a rubbing down with comb or brush in the morning after being milked. Know that after the cows are milked they are turned out for air and exercise unless it be a stormy day. Know that the stable is thoroly aired and cleaned. Get the habit of knowing, and you will succeed.

S. C.



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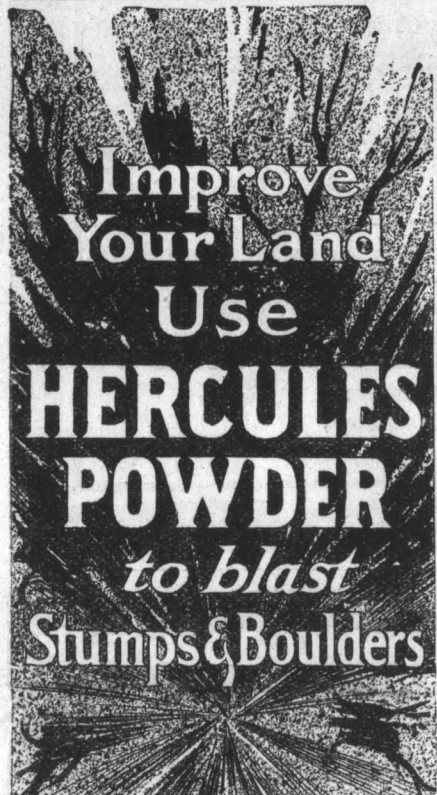
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## THE WINTER CARE AND FOOD OF THE DAIRY HERD.

Since the coming of the modern silo, the problem of providing an abundance of succulence for winter feeding of the herd has been solved and all practical dairymen who have had experience with silo feed, or ensilage know that when it is fed in connection with clover, alfalfa or other proteinaceous fodders it is possible for a dairyman to greatly reduce the cost of producing winter milk. The high price of labor during the summer months and the increased difficulty that farmers are experiencing in hiring competent dairy help for a short time during the summer makes it essential that they devise some plan whereby they may profitably employ their help during the winter months. No good, capable man likes the idea of finding a new place to work every fall, and for this reason many dairymen lose good hands. If the farmers would plan their work so that they could keep more labor during the winter they would have less difficulty in finding competent dairy help.

## A Comfortable Stable Essential to Winter Dairying.

Cows that are producing a profitable flow of milk must have a warm and comfortable stable during the cold weather. Years ago when summer milk production was the sole aim of the dairyman, the stables were usually ventilated with half inch cracks between the boards, but with this kind of ventilation the stables were too cold for producing milk at a profit. Then came the other extreme, and dairymen boarded up their stables with matched material and made them practically air tight, and would not turn their cows out to water. This resulted in lack of exercise, vitiated air, and was followed by debility and tuberculosis. Then dairymen were advised to build stables large and high and to provide each cow with so many cubic feet of air space, and these proved too cold in winter, and otherwise faulty. Some of these stables have proven better than others, owing to different methods of construction and materials used in building, but at the present time the whole problem has been narrowed down to that of providing a good system of ventilation and plenty of light and sunshine. Pure air and an abundance of sunshine are essential to the health of the herd, and if these factors are neglected the stable will be more or less damp and afford an excellent breeding place for disease and vermin.

Animal housing is rapidly approaching a science as regards the dairy cow. The cow will stand a very low temperature when she is kept dry, and it is therefore essential that we guard against damp walls and a saturated atmosphere.

**Maintaining the Health of the Cows.**

The health of the cows is a matter of supreme importance. Suitable food, pure water, good ventilation, proper exercise and good care are all necessary. The great question that confronts us is where to draw the line between the necessities and the luxuries and that must be governed by the intelligence and common sense of the individual and the exigencies of the case. With dairying, the same as with other branches of animal husbandry, there is such a thing as being "more nice than wise," and it is up to the dairyman to draw this line and accomplish the best results at the least expense.

Some dairymen object to using stanchions; but the stanchion is not hard on the cow after she becomes used to it, especially the new and improved steel, swing stanchions. Tying a cow might be considered cruel, but the real inhumanity of the whole thing comes from keeping the cows in the stable all of the time and never allowing her to go outdoors and exercise.

Some dairymen have water in front of their cattle all of the time and personally I have found that it is an excellent thing, but with a large proportion of dairymen it is more of a detriment than benefit, for the reason that they neglect to turn the cattle out in the yard for exercise every day. Such a watering system should not be put in the stable to deprive cattle of their daily exercise. To keep the cows as they should be during the winter involves time and labor, and how to reduce these to a minimum is the problem we must solve.

There are numerous methods of tying dairy cows and all have some particular points of utility, but everything considered, we like the steel, swing stanchion better than anything that can be constructed at a reasonable cost.

The mangers and gutters should be tight and kept neat and clean. The cows should be kept clean, and aside from

cleaning their flanks and udders, they should be groomed once or twice a week. We take an old house broom and run it thru the cutting machine far enough to leave a square, stiff edge, and then cut off the handle about two feet from the broom, thus making a very good brush for use on the cows. This is less harsh than a curry comb, and a man can go over a whole herd while he would be cleaning two or three cows with a brush and comb.

**Feeding the Cows During Winter.**

Good early cut hay and corn ensilage should form the basis upon which we figure the rations for the dairy cows during the winter. This may consist of good clover, alfalfa or mixed hay and ensilage from well matured corn. It is a poor system of winter feeding that does not provide an abundance of good, palatable roughage. When we have good hay and ensilage the amount of grain foods and commercial by-products required to maintain a suitable flow of milk will be reduced to a minimum. However, I believe that under ordinary conditions it will be a paying investment to buy some of these nitrogenous foods to feed with our home-grown dairy foods.

The question of how much grain may be fed with profit must be governed largely by the condition of the cows, the price of milk and its products and the cost of the grain foods that are to be fed. I believe that, as a rule, it will prove more economical to make the home grown foods play a more important part in the rations, especially when we have a good silo full of ensilage and proteinaceous fodders at hand. The cattle will maintain a better physical condition than when they are forced to their utmost capacity on a ration of heavy, concentrated dairy foods.

When we are making a specialty of all the year round dairying we are enabled to carry our cows thru the winter in better shape than when they are allowed to go dry in the fall and kept thru the winter on starvation rations. A cow that comes fresh in the fall and is well fed and cared for during the winter, will go out to pasture in the spring and give very nearly as large a quantity of milk as one that freshens in the spring while she is in a weak and run-down condition. She will be dry during fly time, which is one of the most unprofitable times of the year for dairying, and thus the loss of milk will be less than at any other time during the year. She will come fresh again when dairy products are bringing the very best price, for as a rule, October and November are months of high prices for all dairy products.

It is a sad mistake for a dairyman to allow his cattle to become run down in vitality during the winter. The cow that goes out to pasture in a weak and run-down condition will require the best part of the summer to get back to her normal condition. Self-preservation is the first law of animal nature, and a cow that is in poor condition will put her fat upon her back before she will put it in the rail.

New York. W. MILTON KELLY.

## CONSIGNMENT SALE OF HOLSTEIN-FRIESIAN CATTLE.

The contributors of stock to the public sale of Holstein-Friesian cattle at the state fair grounds at Detroit, October 21-22, were well pleased with the results when the auctioneers had disposed of the last animal. The attendance of stock men was fully up to the expectation of the consignors and all thru the sale the bidding was spirited, during the first half day of the selling an animal was disposed of at the rate of one for every two and one-half minutes time. The number of animals scheduled for the sale was 150. Of these 147 were offered for sale, the others having been detained by accident. Sixty-five animals were just two years old or under, several being but a few months old. The average price paid was a little over \$131 per head, bringing to the association for the whole consignment the grand total of \$19,315. The highest price paid for any one animal was \$380, which was the high bid for Aaggie Canary DeKol, a four-year-old cow of splendid type. Three other animals were "struck off" at the \$300 mark, and 15 were sold at \$200 and above, while 98 of the animals went for more than \$100, and three went at that figure. The support given the sale is encouraging to the movement for holding large consignment sales and it is believed that when breeders come to realize the benefits to be derived from, and expense saved by, such auctions that more of them will be held and all parties both sellers and buyers, will be better pleased and better served by the practice.

## TWO WOMEN

These women start to wash their cream separators. The upper woman has a simple, sanitary Sharples Dairy Tubular Separator—with nothing inside the bowl but the tiny piece here shown in the dish pan—and washes the entire bowl in two minutes.

The lower woman has a common, disk-filled cream separator—with 40 to 60 disks inside the bowl—and spends twenty minutes washing the bowl. She wishes she had a Tubular.

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## POULTRY

### HOW INBREEDING AFFECTS THE FARM FLOCK.

We frequently see the questions asked, "What is inbreeding?" and "Is inbreeding harmful to the vitality of the stock?"

The old farm flock of twenty years ago will answer the first question, where for years no outside male was bot. Year after year a cockerel was saved from the home eggs, to be mated the coming spring with females of every degree of relationship, from sister and mother, to lines of relationship unexplainable.

Is such breeding harmful? The runty stock of all sizes and conditions again answers the question. It mattered not so much in years past when the farm flock was expected to lay only a few weeks in spring and summer. The fowls had sufficient vitality for that, but how would they stand up to the work of present-day feeding and production? They would fall by the wayside.

There are all sorts of arguments brot forward to prove that inbreeding is sane breeding. Some point to wild fowl; others to the Jersey breed of cattle at home; others quote their own experience covering a few years, but the majority of level-headed poultrymen agree that incestuous inbreeding will, if continued, result in lack of stamina and diminished size of fowls. Where a fancier who has studied breeds can, from the appearance of his birds, judge somewhat as to which are fit to use for inbreeding, the common breeder who pays little attention to his flock would be all "at sea."

There is no plausible excuse, either, for a farmer who wants poultry purely for eggs and dressed fowl, to inbreed. What he wants to do is to breed for eggs, and when he wants new blood he must not be afraid to pay two or three dollars for a cockerel from a breeder who breeds for the same object rather than for fine feathers. Early fall eggs are what we who depend upon eggs for our income, want, and no one will deny that this trait of fall laying is or can be bred into the stock. Therefore, I say, choose males from the flocks of breeders who are aiming at the same object as yourself, and not from a fancier who cares nothing for eggs except during the hatching season.

In the October issue of The American Poultry Advocate is an article on the importance of constitutional vigor in the breeding of poultry. The article is illustrated by cuts showing the vigorous, prepotent male and female in several different breeds. No one can study these cuts without learning to apply more knowledge to his own flock, for we all have such specimens but we have not all learned to appreciate the difference in breeding quality in the alert, vigorous fowl as compared with the less thrifty flockmate.

Size is not always to be a guide. Between fowls of nearly equal size one may be much below his mate in breeding value. One must learn to judge by shape and carriage and alertness which is the one that will impress his characteristics upon his progeny. It is something like picking a good dairy cow. One can study rules for doing this, but the most expert buyer is the one who, when he sees the proper combination, knows it and buys the animal. Hens that can stand up to heavy feeding and production are strongly built, with legs well apart and not too long, and with full breasts, indicating capacity for taking large quantities of food and ability to digest it.

It is much better for the farmer not to inbreed his poultry. It cannot benefit him along utility lines and, if persisted in, is detrimental to his flock.

Maine. D. J. RYHER.

### WHAT TO DO WITH CHOICE COCKERELS.

In grading the surplus poultry and dividing it into lots for fattening, after the plan suggested a few weeks ago, farmers having pure-bred flocks will find an occasional cockerel which it seems a pity to send to the slaughtering pen. The owner instinctively feels that more cash would be realized from the sale of such fellows as breeders than in the form of market poultry, and he is tempted to remove them before the lot enters the fattening pen.

For the man thus perplexed there are ways in which he may utilize such fowls in improving his flock and probably in increasing the season's returns. Intelligent poultry keepers are coming to realize the necessity of introducing new blood

into their flocks each season and thus the demand for good vigorous males is steadily increasing. It is likely, if the number of such fowls is not too large, that places can be found for them in one's own neighborhood at prices considerably above their market value. In thus disposing of them one is doing his neighbors who keep this breed a good turn, is, incidentally, helping to build up the breed in that community and is getting rid of the fowls early. Altho better prices would probably be realized by keeping these breeders until the approach of the breeding season, it may not be possible or practical to do this, and anyway, enough cash should be realized from them to pay for the new blood which the owner is probably planning to add to his flock for next season. Or, if there are other good flocks of his breed in the neighborhood, he may simplify the task of securing new blood by exchanging breeding males with some of his neighbors, provided that their flocks are not already closely related to his. Such exchange may apply not only to this season's cockerels but to last year's males as well, for there should be some old fowls in this winter's breeding pens, the best plan being to mate the pullets with males of last year, and to have a sufficient number of old hens to mate with the cockerels.

### Advertising, and Patronizing Shows.

But where it is impossible to dispose of these cockerels in the manner described above there are still several ways open to the man who is determined to get better than market values for them. One of his alternatives is to advertise his stock in some paper which reaches a very large number of that class of poultry owners to which his stock is suited. Another is to shape up a few of his best fowls with a view to showing them at one or two of the local poultry shows within his reach. This should prove a good move from an advertising standpoint, for, whether his fowls win prizes or not, it brings him into contact with a lot of live poultrymen and gives him a chance to determine for himself as to whether his judgment in selecting cockerels which he considered fit for the breeding pen was good or bad. What he sees and hears at the poultry shows will no doubt largely determine the future of the breeders, which he is anxious to dispose of. If they compare favorably with those reserved by other breeders, a little business judgment should enable him to place them to advantage. If unable to turn them over for cash, the shows afford a favorable opportunity for making exchanges with other breeders, and should he return from the shows without having reduced his flock of breeding males he is really ahead if he has succeeded in exchanging them for new blood in individuals of about equal merit. True, he has not yet converted the choice cockerels into cash but he is now in position to fit up a good number of breeding pens and produce pure-bred eggs for hatching. The dangers of inbreeding have been eliminated, and the expense of getting these pens together has not been excessive, so that the eggs should yield a nice profit when sold at prices which farmers are able and willing to pay. A small advertisement in a medium which reaches wide-awake farmers should bring all the orders that can be filled, while honest goods and fair treatment will give this end of the business a start which will render the disposition or utilization of the choice cockerels easier and more remunerative each succeeding year.

### TUBERCULOSIS IN POULTRY.

A large proportion of the diseases to which fowls are subject are related to the respiratory organs. Fowls give off in breathing the moisture which other animals excrete thru the skin and kidneys. Consequently it is the lungs that frequently go wrong when a bird falls ill. The two commonest complaints and also the most deadly (with the exception of cholera), are roup and liver disease or consumption. Roup usually arises from a neglected cold, liver disease from inbreeding and close confinement. It is not fowls alone that are subject to consumption as it is the most fruitful cause of death among all wild animals kept in captivity, and domestic animals in close confinement.

Now these diseases are the cause of a large amount of mortality among poultry, and the remedy should be the same in all cases, namely, a transfer to new quarters in the early stages of disease; later on nothing can save them, nor is it advisable to try to do so, for it is dangerous to breed from them, and the flesh, if they are killed, is unfit for food. If it is the liver and not the lungs which are chiefly

affected the fowl wastes away while to all appearances remaining in perfect health; hence the disease is often called "going light." The liver will be studded with yellow, cheesy nodules or tubercles. These bacilli may reach the oviduct, even be included in the embryo egg so that the chick subsequently hatched will be tuberculous. So dangerous are all the various forms of liver disease and consumption that one hesitates to recommend any attempt to cure. Remove all the fowls from the house in which cases occur, isolate them and, if doctoring is attempted, try one of the advertised remedies. It is very important that the house and run be thoroughly disinfected. The yard should be dressed with lime and allowed to lie fallow for some time. Perhaps the most effectual way to treat the house is to stop up every hole and cranny, put some sulphur on an iron shovel on the floor, set fire to it, close the door and keep it shut the interior, using some disinfectant as for twenty-four hours. Then whitewash well.

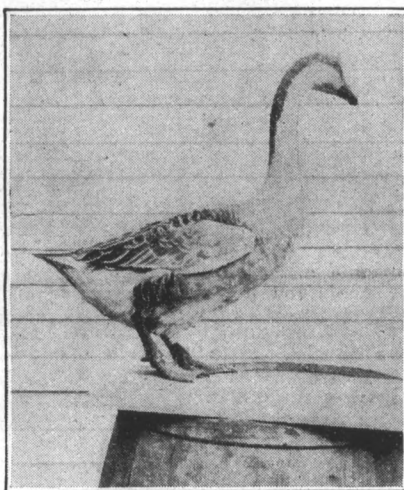
Canada.

W. R. GILBERT.

### THE BROWN CHINA GOOSE.

This breed might be called the Leghorn of the goose family since its representatives are among the smallest and most active of this class of fowls. They are also considered the best egg producers, while their admirers also hold that in quality their flesh surpasses that of most other breeds. However, they average 5 to 6 lbs. lighter than such breeds as Embden, African and Toulouse, which is by no means an unimportant consideration in the minds of those who grow the fowls for market purposes.

The Brown China is hardy and matures rapidly. Being lighter it is less clumsy



Typical Brown China Gander—A Prize Winner at Michigan State Fair, 1909.

than the other breeds. The conformation and markings of the male are well shown in the accompanying illustration. The color may be said to be brown thruout, ranging from very light brown to nearly black. The standard weight of the adult gander is 14 lbs. and of the adult goose 12 lbs.

### MICHIGAN POULTRY SHOWS.

The opening of the annual show season is approaching with the outlook good for a continuance of the unusual interest which has characterized the large number of poultry shows held in this state the past few years. Dates thus far claimed by the various poultry organizations throughout the state are as follows:

Reading, Hillsdale Co., Dec. 1-4.  
Salem, Washtenaw Co., Dec. 1-4.  
Ithaca, Gratiot Co., Dec. 7-10.  
Grand Ledge, Eaton Co., Dec. 14-18.  
South Haven, Van Buren Co., Dec. 14-18.  
Coldwater, Branch Co., Dec. 15-18.  
Harbor Beach, Huron Co., Dec. 15-18.  
Lansing, Ingham Co., Dec. 27-31.  
Hastings, Barry Co., Jan. 3-8.  
Allegan, Allegan Co., Jan. 5-8.  
Detroit, State Poultry Assn., Jan. 8-10.  
Saginaw, Saginaw Co., Jan. 10.  
Sault Ste. Marie, Chippewa Co., Jan. 17-22.  
Three Rivers, St. Joseph Co., Jan. 19-22.  
Howell, Livingston Co., Jan. 19-23.  
Port Huron, St. Clair Co., Jan. 21-24.  
Houghton, Houghton Co., Jan. 27-30.  
Vicksburg, Kalamazoo Co., Feb. 17-20.

### New Rupture Support.

United States Letters-Patent No. 917,376, dated April 6, 1909, for improvements in Rupture Supports, have been granted to F. J. Stuart, Block 72, St. Louis, Mo. This invention is directed to a support, designed to be used alone or in combination with a truss and to adhere to the person to obviate the use of extraneous fastenings and hence prevent possibility of the support slipping. The support is admirably adapted for securely holding the rupture in place and will also supply a soothing and healing remedy thereto, which will be taken up and absorbed by the pores to heal and relieve the parts of pain. From "The World's Progress," Washington, D. C.

### How to Make Better Cough Syrup Than You Can Buy

A full pint of cough syrup—enough to last a family a long time—can be made by the recipe given below in five minutes, for only 54 cents. Simple as 'tis, there is nothing better at any price. It usually stops a deep-seated cough in twenty-four hours, and is a splendid household remedy for whooping cough, colds, hoarseness, bronchitis, etc.

Take a pint of granulated sugar, add ½ pint warm water and stir about 2 minutes. Put 2½ oz. Pinex in a pint bottle and fill up with syrup. Take a teaspoonful every one, two or three hours. It keeps perfectly and the taste is pleasing.

The chemical elements of pine which are very healing to membranes, are obtained in high proportion in Pinex, the most valuable concentrated compound of Norway White Pine Extract. None of the weaker pine preparations will work with this recipe. Your druggist has Pinex or can easily get it for you.

Strained honey can be used instead of the syrup and makes a very fine honey and pine tar cough syrup.



### Horse Blankets

A horse owner, looking for a High Class Blanket at a low price, needn't go further than "A 5A Storm King."

There's five hundred cents worth of value in one of these blankets and your dealer asks but \$2.50. That's because we sell him direct from the factory, thus avoiding the middleman's profit, which would otherwise be added to the price you pay. 5A Storm King Blankets are large (84 x 90 in.) and very warm and strong, actually outwearing other blankets at twice the price.

Buy a 5A Bias Girth for stable use.  
Look for 5A stay under strap.

WILLIAM AYRES & SONS, PHILADELPHIA, PA.

BUFF Orpingtons for sale—Cockerels, pullets and hens, good stock, must be sold at once. Mrs. E. M. Gray, Augusta, Mich. Bell Phone Galesburg Ex.

FOR OCTOBER will sell yearling hens in White, Silver, Golden Wyandottes, S. C. and R. C. White and Brown Leghorns, Light Brahmas, Barred Rocks, at \$1 each in lots of 10 or more. Nothing cheap but price. E. J. HASKINS, Pittsford, Mich.

WHITE and BUFF ORPINGTONS from my prize-winning strains at living prices. Can also furnish B. Rocks, B. B. and R. C. White Minorcas, W. C. B. Polys, Boudans and White Leghorns. H. H. KING, Willis, Michigan.

SILVER Laced Golden and White Wyandottes. A fine lot of young stock all bred from prize winners C. W. BROWNING, Portland, Mich.

BARGAINS in S. C. Brown Leghorns, 100 yearling hens \$1 each, best flock in Mich. First comes gets the pick. Order from this ad. Satisfaction. FRED MOTT, Lansing, Michigan.

White Wyandottes, been breeding them continuously since 1895. A. Franklin Smith, R. F. D. No. 9, Ann Arbor, Mich.

### DOGS.

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of the best English strains in America. 40 years experience in breeding these fine hounds for my own sport; I now offer them for sale. Send stamp for Catalogue. T. B. HUDSPETH, Sibley, Jackson Co., Mo.

TRAINED FOX HOUNDS and Hound Pups for hunting fox and coons. Also Collies & Ferrets. Inclose 2c stamp. W. E. Lecky, Holmesville, Ohio.

### FERRETS.

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4,000 LIGHT and DARK FERRETS Catalog free. C. J. DITZICK, Rochester, Ohio.

FERRETS—Warranted good rat and rabbit hunters. A few choice Fox Terrier Pups. Circular and price list free. Address SHADY LAWN FERRET FARM, New London, O.

4,000 FERRETS—They hustle rats and rabbits. Prices and book mailed free. J. N. A. KNAPP, Rochester, Ohio.

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DETROIT, OCT. 30, 1909.

## CURRENT COMMENT.

Several readers of The Line Fence Law. have recently requested information with regard to certain features of the law relating to line or partition fences in this state, particularly as to how one may proceed to compel the owner of adjoining lands to build or maintain a line or partition fence if he is not disposed to join with the complaining party in such fence construction.

The statute says, "The respective occupants of lands enclosed with fences shall keep up and maintain a partition fence between their own and the next adjoining enclosure in equal shares so long as both parties continue to improve the same." This section of the compiled laws was amended in 1907 by the addition of a provision relating to private ways, requiring the owner of such private ways to maintain his share of the partition fence between such private ways and the adjoining enclosed land.

The means which must be taken to compel the reluctant owner of adjoining lands to comply with this provision are also plainly outlined in the statute which provides that the overseers of highway and the highway commissioners of the several townships in this state shall be fence viewers in their respective townships, provided, that if, in any case there shall not be at least two disinterested fence viewers, either of the two justices of the peace nor members of the township board, or both if necessary, shall act as fence viewers whenever required. Each fence viewer must be paid by the person employing him at the rate of \$2.00 per day for the time he shall be so employed. The law providing for an action to recover, in case such payment is not made.

In cases of dispute over the building of a line fence the fence viewers should be called out by the aggrieved party. These fence viewers will act as a court in deciding whether a fence should be built or maintained, and by whom, when the complaining land owner may, upon this authority, and after due notice, construct or repair such fence as may, in the opinion of the fence viewers, be needed and may recover such cost as provided by Section 2418 on the compiled laws, which reads as follows. "When

any deficient fence built up or repaired by any complainant, as provided in preceding section, shall be judged sufficient by two or more fence viewers, and the value of such repairing or building up, together with their fees, shall be ascertained by a certificate under their hands, the complainant shall have a right to demand either of the occupant or owner of the land where the fence was deficient, the sum so ascertained. And in case of neglect or refusal to pay the sum so due on or before the first day of the next succeeding October, after demand thereof is made, the sum so due shall become a lien on said lands, and the fence viewers aforesaid shall report the same to the supervisor of the township, on or before the first of November next, thereafter, who shall cause the same to be spread upon the assessment roll, in a separate column for that purpose, opposite the description of the land owned or occupied by person or persons neglecting to pay the same, the said taxes to be collected in the same manner that other taxes are collected and paid over to the complainant under the order of the township board."

This law was practically inoperative between the sessions of the legislature of 1907 and 1909 for the reason that the number of overseers of highway was reduced by the new general highway law passed at the session of 1907 to one for each township, while the law provided, as at present, that two or more fence viewers could be called upon to decide a controversy of this kind, the overseers of highway being ex-officio fence viewers. At the session of 1909, the law was amended as above noted so that other officers could be called upon as fence viewers.

There are many features of the fence law which are not plain or generally understood, and which we will undertake to discuss in these columns in future issues, but this will be sufficient to guide those who have sought for information as to how to compel an adjoining owner of enclosed lands to build or maintain a suitable line or partition fence.

Now that two seasons The Highway have elapsed since the new general highway law, changing our system from the labor tax to the cash tax and making the work of highway improvement a township matter, a discussion of the conditions which obtain under the new system as compared with the old will be pertinent and timely. First, it may truly be said that the taxpayers of the state are of as diverse opinion as ever with regard to the desirability of the two systems, and while many believe the plan to be a great improvement over the old highway labor tax, others are still dissatisfied with the plan and with the results which have been secured under it. But from a broad general view of the proposition, it would seem that the consensus of public sentiment is stronger in favor of the cash highway tax at the present time than was the case when the proposition was submitted to the electors of the state and received their approval. If this estimate of the situation is correct, and we believe that the observing reader will agree with us in this respect, it would seem that the new plan must, on the whole, have proven superior to the old, else there would have been a reversal of public sentiment in regard to it. This assumption, too, would appear to be borne out by the observation of conditions in various parts of the state. In traveling thru the state one observes less evidence of wasted labor under the new system than under the old. There are fewer cases in which the road grader has been freely used upon sandy roads with the effect of making them rough and uneven and the sand deeper as they become worn down. There are fewer instances in which clay roads have been worked late in the season, which is sure to leave them in an almost impassable condition thruout the winter. Fewer poorly constructed or installed culverts and sluices are to be seen, and in many ways there is less evidence of a waste of time and money in misdirected efforts at road improvement. True, the results which have been obtained under the new system are in many cases not all that might be desired but in a general way those results show evidence of a system in road improvement which was not apparent under the old plan. There will be a goodly stretch of main traveled road graveled, with here and there a bad hill graded down. Here a crossway has been filled in and perhaps the roadbed widened. There is also less evidence of a waste of money in the purchase of expensive machinery, for which the road districts were commonly exploited in

many sections a few years ago, and which was generally given little care after purchased. There is an apparent tendency to use better material and make the work of road improvement more permanent in many cases, and altho less may actually be done on the roads of a township under the new plan than under the old, it is apparently done to a better purpose and while in isolated cases the needs of rural residents may not be as well served, the general public probably derives more benefit from permanent road improvement, especially in townships where the electors have been fortunate in their choice of highway officers and generous in voting them funds for highway improvement as well as repair and maintenance.

But in some sections the taxpayers have not been generous in this respect, and have appropriated a far smaller amount than was voted in labor under the old plan. In this case the system is not at fault for the failure to improve the roads. There is too often an indifference toward the proposition on the implied ground that the control of the highways has been removed from the hands of the farmers who pay the tax. Such indifference is to be deplored. The people of any township can have just as much or just as little improvement under the new law as they desire or are willing to pay for. Under the new highway law passed by the last legislature, in which several changes were made in the statute as it formerly stood, they can also control its administration to any degree which they may interest themselves. If they do not like the single road district plan, they can simply make this point an issue in the election of a township board, or memorialize the township board at the annual township meeting to the effect that they desire to have the township divided into districts for the application of the road repair tax, which the board and the commissioner may do at their option under the new law. Thus the expenditure of the road repair tax may be practically dictated by the taxpayers of the township or any section of a township in which there is a desirable unanimity of opinion on the subject. Thus one cause of dissatisfaction with the new system would appear to be removed.

But to have good results under the new law, as under any system that might be devised, the voters must be reasonably liberal in their appropriations. Instead of appropriating less money than the equivalent of the labor tax formerly voted, they should appropriate more, as labor is more costly than in years gone by, and the same amount of cash expended will accomplish less on the highway, as well as upon the farms of a community. Naturally it takes time for the adjustment of new conditions, and it is probable that the results under the new highway law will not be entirely satisfactory to all the people affected for years to come, but the more general the interest taken in the problem by the voting taxpayers, the more general will be the satisfaction with the results, and it is not too early to be thinking and talking about the means to the end of making it more satisfactory in any community next year than it was last.

During the busy summer season, and the more strenuous labor of the fall incident to the securing of the last of the crops, there is little time to think about other work. This strenuous work over, the farmer is apt to allow himself needed relaxation and rest and often such relaxation and rest may be better enjoyed by devoting a little thot and a little work to the improvement of the home surroundings.

For some unexplained reason our efforts in this direction are apt to be more active about the spring housecleaning season than any other time, possibly because of the suggestions which that season brings to us, both orally and by example. There are, however, many little improvements that can be better planned in the autumn than in the spring and in many cases more time may be devoted to their execution at this season of the year. In any case a little careful planning in advance will insure the success of contemplated improvements which we intend to make in the spring season. Many of our readers will remember the story, "An Arbor Day with Uncle Ben," which was published in our magazine section previous to the day last set apart for general observance by the planting of the trees for the beautification of our homes. In this story Uncle Ben was pictured as taking the young people to the woods with him and explaining to them how he had prepared the previous season for the transplanting of the trees which had been

selected for that use; how he had dug about them to prune their roots; how he had prepared the ground where they were to be planted, etc., all of which he impressed upon them as contributory to his success in the planting of the trees which added not a little to the beauty and fame of the old home of which he was justly proud.

The moral of this story was one which should have been retained by every reader. It well illustrated the fact that previous planning, accompanied by preparatory work of the right kind, will make the improvement of our home environments a much easier task and at the same time afford us not a little enjoyment in the planting and execution of the work incident to such improvement.

If every farm family would devote a little time to the general planning of a scheme for improving the home environment in the planning and execution of result would be much more satisfactory than any spasmodic effort which might be made to satisfy our periodical spring ambitions in this respect, and the time and effort required for the planning and execution of such a scheme would be many times repaid in pleasure and satisfaction which would be derived from the work itself, as well as from the general improvement effected, by every member of the family.

The preliminary estimate of the total production of wheat for the country for the current year is 724,768,000 bushels, as compared with 664,602,000 bushels for 1908; while the production of oats is estimated at 983,618,000 as compared with 807,156,000 bushels in 1908. The production of rye and barley is slightly under that of last year, while that of hay is considerably below, yet in each of these cases, with the single exception of rye, the production of the present year is estimated at considerably above that for 1907, and is away above the average for any series of years which might be named.

These figures for the wheat crop are considerably higher than was anticipated from an analysis of the crop reports published before the harvest season, yet notwithstanding that fact the price of wheat has remained safely above the dollar mark in the country, and at the present time is close to the ten shilling mark in the Detroit market, and as a natural consequence all talk of cheap wheat has been abandoned. Prices in other departments of the market for agricultural products also remain at a high point, and there is every prospect that not only grain of all kinds but meats for the production of which they are fed will sell at record prices thruout the coming winter.

Figures are not yet available touching the probable production of potatoes in the country, and reports regarding yields are conflicting to a degree. Without question, the crop is yielding very well indeed in some localities, while it is correspondingly short in others, due largely, no doubt, to the uneven distribution of moisture during the growing season. The market for the late tubers has remained closely around the 40 cent mark at loading stations, but the crop has not moved rapidly at the price. The growers evidently believe, and we think, with reason, that with every other foodstuff selling high, there is at least no danger of potatoes going down, even if the November estimate of the aggregate yield for the country should be comparatively high, which is by no means certain. The policy of holding back the bulk of the crop, at least until the November estimates are available, is a good one.

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## HAPPENINGS OF THE WEEK.

## Foreign.

An accident to the representative of the Sultan of Morocco, who had been sent to the Rif to settle with the natives, may result in the return of the Spanish troops in that it will be necessary to move against the place should the Sultan fail to pacify them. Altho the liberals of Spain were against the war originally they now take the position that having begun the war they must be loyal to the country and see the trouble thru.

A severe storm swept over the lower parts of the Gulf of Mexico for some 36 hours up to Sunday evening, and while reports of specific instances have not come to hand, it is generally believed by the character of the storm that much damage has been done.

About 300 yards of the Russian marine cable along the Finnish coast has been removed by some enemy of the government.

While the leaders of the socialists endeavored to stir up public sentiment against the meeting of the King of Italy with the Czar of Russia the people did not respond and most of the meetings called for Sunday were not attended.

The Servian government has a new ministry with M. Pasitch as premier.

Two typhoons recently crossed Luzon. During the 24 hours of the first visit 26 inches of rain fell and during nine of these hours 18 inches of water came to the earth. The wind reached the velocity of 95 miles per hour. It is estimated that several months will be required to get roads in passable condition.

King Manuel of Portugal, is now convalescing from a recent attack of severe intestinal disorder.

The recent big strike in Sweden has left many laborers without work and many are migrating to other lands. But the government not wishing to deplete the country of workmen which are so badly needed in normal times, has started a public subscription to be loaned these people with which they can purchase small farms and repay the government at any time in ten years.

Report comes by way of Brussels that new atrocities have been committed in the Congo country since the investigation of some years ago by the agents of rubber companies, and that the character of these outrages are such that another inspection should be made.

Negotiations for the loan to construct the Hanchow-Sze-Chuan railroad in China have been temporarily terminated due to the disfavor of the Hu-Peh assembly passing unfavorably upon the making of the loan.

Engagements between the rebels and the Nicaraguan troops resulted in victories for the rebels with rather heavy losses for the federal forces. Zelaya, the elected president, is now mobilizing troops in the interior and shows no disposition to give up the struggle even tho these early engagements are against him.

At the opening of the Cortez of Spain there were wild scenes brot about by the republican members urging the recent execution of Prof. Ferrer upon the attention of the assembly.

The British house of lords, after materially amending the Irish land bill passed the measure after the third reading. The government criticised the amendments and stated that in all probability the commons would not allow the measure to become law as it was corrected by the lords.

The war minister of the new liberal cabinet of Spain has informed the public that the army will not pursue further the campaign in Morocco, but will simply hold the present positions, defend Melilla, and pacify the rebellious natives with the aid of the influence of the Sultan of Morocco.

Servian papers are intimating that the meeting of the rulers of that little country and Bulgaria is the forerunner of federation of the Balkan States.

The news has just reached this country of the assassination of Prince Ito of Japan at Harbin, Manchuria. The Prince had gone to the scene of the recent Russo-Japanese struggle to confer with the Russian minister of finance upon matters believed to be connected with the railroads in Manchuria. The assassin was a Korean. Since the war with Russia until a few months ago, the Prince has been the Japanese representative at Seoul and the Koreans considered him oppressive and for this his life was in constant danger, but he was so well protected that until after he was called from that position and sent on the errand to Harbin, there was little opportunity to commit the crime. He was considered the greatest statesman of New Japan, was the drafter of the new constitution and the leader of the government in the ways of the occidental forms of public management. His loss will be keenly felt by the government at Tokio, and the Japanese people in general as well as by foreign powers dealing with that government.

The law recently passed giving the lepers isolated on the island of Molokai one of the Sandwich groups, a physical examination, is resulting in many persons who were imprisoned on the island as lepers, being freed.

## National.

The police of Indianapolis credit the explosions of dynamite in different sections of the city simultaneously to the organized effort of union men who were out for revenge against a certain contractor for employing non-union men.

President Taft, as guest of the Lakes-to-the-Gulf deep waterways association, started on his trip from St. Louis Monday. The commission has arranged for a big demonstration in connection with the entertainment of the chief executive by which means they hope to win public attention to the cause for which they are laboring.

In compliance with the cancelling of the indemnity coming to the United States from China that government has sent 47 students to this country to be educated in our universities.

Nearly all of the first-class mail re-

covered from the steamer Ohio, which sank in Carter Bay, British Columbia last August, has been found to be in good condition and is now in the postoffice at Seattle and is being distributed.

A Mexican attorney and author is being held in Los Angeles, Cal., on charges of being in this country illegally and of anarchy.

A Baltimore merchant was recently fined in the United States courts for sending out medicine that was misbranded. The medicine was said to be a sure cure for certain ailments which did not prove true, and the judgment was made upon this ground, the courts being particular about the application of the law in regard to drugs.

Arrangements are being made for the federal court of inquiry looking into the Brownsville shooting affair to go to the scene of the trouble and give every person a chance to appear and enlighten the court in matters that it might have overlooked.

No action has been taken by this government on the matter of President Zelaya, of Nicaragua, who is refusing Americans permission to go into insurgent territory.

The opponents of the state guarantee of bank deposits are overjoyed at the news from Oklahoma that a certain bank at Bartlesville, of that state, decided to take out a federal charter instead of a state charter. The state law, of course, only applies to the state banks. The bank in question is capitalized at \$100,000.

The Governor of Kentucky has sent troops into the regions where the "night riders" have been most numerous to aid the growers' operating against the wishes of the "riders" to gather their crops.

President Taft has asked the state department to investigate the facts in connection with the Cook caes in Mexico, where Cook, a railroad conductor, claims to have been imprisoned unjustly.

A gigantic federation of ship owners has organized in London. The scope of the organization is world wide and represents a shipping tonnage of 16,000,000 tons. The object of the organization is merely defensive.

Moses R. Taylor, who has been crier of the Michigan Supreme Court for 29 years, died at his home in Lansing at the age of 92 years.

Twenty persons were injured by an electric car running into an open switch on Jefferson avenue, Detroit, last Sunday night.

Justice Peckham, of the United States Supreme Court, died at his summer home near Albany, N. Y., October 27. He was born in that city in 1838. President Cleveland appointed him to the supreme bench in 1895. Unlike most of the federal judges, he gave his full time to the consideration of cases that were brot before the court. Many of the important decisions of the court on corporations were written by him.

## CROP AND MARKET NOTES.

Gratiot Co., Oct. 21.—The drouth of late summer, which so much retarded seeding, was broken Sept. 22, when sufficient rain fell to moisten the ground below the plow furrow. Altho much wheat had been sown prior to that date the bulk was then hurried into the ground. Early seeding on summer fallows has already a heavy growth. Cool weather during early October has retarded the growth of the late sown, tho a good stand is almost universal. Corn that was frosted Sept. 2, when left standing, matured into good hog-corn. The shortening of the ears by not filling out was the chief damage in most cases. Some farmers on the lighter soils report that their entire crop is but hulls and they have been obliged to dispose of their hogs as a result. This week was a heavy shipment in hogs at 6 1/4 @ 6 3/4 c. Much winter apple barreling has been done the past two weeks. The packers pay \$1.15 @ 1.25 per bbl. on the trees. The farmer simply needs to look after the money. Butter sells from 25 @ 32c a lb. Bean threshing will soon be finished; they going onto the market at \$1.75. Potatoes were damaged to some extent by freezing during the cold weather of last week, tho Gratiot did not have the heavy snow that many places did. Beet harvest is well under way, as is husking and all fall work. Wheat sells at \$1.18 per bushel.

Lapeer Co., Oct. 16.—Potato digging is still in progress; yields not heavy in this part of the county. The advance guard of winter struck here the fore part of last week, a snow storm and freeze-up, which made us think that our potato crop was doomed, but everything has come thru all right. We kept at work and pine stumps came handy to fire and keep potato diggers comfortable. The crop is now nearly all secured, and some are husking corn. The rains that came eight or ten days' since, altho light, may redeem the wheat seeding that was suffering so for lack of moisture. Some fields of wheat were over two weeks in coming up; but now the pastures and meadows and clover seeding are all improving. Hay is bringing fair prices; wheat, \$1.14; oats, 31c; corn, 70c; potatoes, 35 @ 40c; sheep, 5 @ 6c; hogs, 6 @ 7c; cattle, 5 @ 6c. Wages too high for farmers to pay. Beans not much threshing done, but \$1.90 is bid when hauled to market.

Kent Co., Oct. 25.—After one week's potato digging, with ground crusted every morning, the writer feels competent to estimate fairly the average yield per acre, within his own immediate township at any rate. From 40 to 100 bushels to the acre will cover the ground nicely, with the emphasis on the 40, the mean average being around 75 bu. About 50 per cent of the crop was dug last week and the balance will be got in the cellar this week. Some few are hauling direct from field to car at 40c. Digging over, 50c will be demanded, we are told. Stock is soaring some. Fat steers sold up to 10c per 100 lbs., alive, last week at Chicago and anything commands 4c. Cut meats here in local shops are selling up, and out of sight prices offered the farmer.

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## HORTICULTURE

### NITROGEN AS A FACTOR IN FRUIT PRODUCTION.

We are generally given to the fault of discussing the qualities of potash in the production of fruit, and leaving the nitrogen question pass with slight reference, when, as a matter of fact, it is fundamentally the important element in the production of the fruit. Results from the other elements depend largely upon getting enough, while with nitrogen it is a question of applying just enough since it is quite easy not only to deprive the soil to its harm but to give too much for the benefit of the trees. The element promotes growth. Where it is lacking the color of the leaves becomes yellowish green and the amount of wood produced during the season is small. If in too large quantities there is likely to be a scarcity of fruit. The wood is produced to the disadvantage of fruit production. In handling any orchard there is a happy balance where the amount of nitrogen and the other elements of the soil are in a proportion to work together to give the maximum of results—a good wood growth and all the fruit that the plant can well support. If this happy adjustment can be made then the grower has obtained an advantage that will take him far toward the goal of economical fruit production.

The applying of this element as well as others, is a matter of acting upon the case. No general rules will do. The particular soil and the particular crop must be considered when nitrogen is to be added. Apples will stand more of the element than grapes to grow maximum crops. Some lands, because of the methods of farming, have been largely depleted of nitrogen and consequently would need more to bring the elements into proper proportions than lands better cared for. The amounts that has helped one man may not help another. This, because of the inability of the average, as well as the educated man to readily determine the amount present, should be left for the decision of the tree where the color of the foliage and the amount of growth are indicative of the need. The source of nitrogen is largely from the growing of leguminous crops. Clovers, vetches, peas, cowpeas, are among the most common used for the purpose. Nitrate of soda is often used with good results. But it is better, generally speaking, to grow a legume, for the reason that the crop begets a better mechanical condition of the land as well as adds the nitrogen. In forming a decision as to rotations for providing nitrogen it is proper that one should consider the future crops from the trees. The yearly growth of wood and storage of plant food are important in laying the foundation for after crops. While to stint in the amount of nitrogen for a season might be profitable for that year, yet in the long run there is every possibility of a partial failure, when the net returns of a number of years are reckoned.

### THE APPLE AND PEACH CROPS.

While the apple crop is not a large one here there are more apples than last year, and as a whole, I believe the quality is better in unsprayed orchards, tho this is far from perfect. Some of the orchards have the San Jose Scale so badly that they can never again produce good fruit unless this insect is checked. It does not seem possible to rid the orchard of the pest by one spraying with lime sulphur even where careful work is done, if the trees are large and badly infested, and where the work is done in a half-hearted way good results are not obtained. From my observations of the orchards that were sprayed with soluble oils last spring I have not found them giving very good results, tho this may have been partly the result of the operator rather than the material. I think we are safe in tying to the lime-sulphur until we are sure there is something better.

Northern Spy is the chief variety this season, in fact, I believe it comprises more than half of the apple crop, and perhaps three-fourths of it. The variety is an old standby, and right at home in Michigan, and more should be planted, but its tardiness in bearing is against it.

We had another example this season of the damage hail could do in a few minutes. During the summer, shortly before harvest, a hailstorm struck one of our orchards from the northwest accompanied by a fierce wind. At picking time we found that wherever the hail struck the

apples they failed to develop, leaving them one-sided and full of hollows on the windward side, in fact, there were few perfect apples on the trees, the best ones being on the side opposite the wind and on the lower part of the tree where they were protected. Trees 80 rods away had the fruit very little injured.

A good illustration of the value of the later sprayings was presented this season. One orchard had so few trees that bloomed that we gave it only one spraying after blossoming. In all cases we found that where the fruit was thin and scattering there was considerable damage by codling moth, but where the trees bore anything near a crop the damage was much greater in the orchard sprayed but once than in those that had the three applications after blossoming.

The peach crop has been quite a large one this season, as most trees came thru the winter in good shape and blossomed full, in fact, too full, necessitating much thinning to get a good size and not injure the trees. We have had a succession of varieties ripening so that peaches could be picked at any time from the middle of August to the present time, October 20, and there are still a few Smock and Salway to pick. The main varieties in approximate order of ripening were Dewey, Yellow St. John, Early Crawford, Fitzgerald, Elberta, Kalamazoo, Gold Drop, Beer's Smock, and Salway. The last, and perhaps the last two, are too late to be sure croppers in this region.

The worst foe of the peach grower is the yellows. In regions where this is prevalent and especially in those regions where there is no inspection or inspection is lax or incompetent, peach growing is about as uncertain as a lottery. The disease seems worse in regions where it has been newly introduced, or perhaps it is because the growers are not familiar with it and many infected trees are left year after year to scatter the disease over the neighborhood. At first there is usually a sentiment against proper inspection and cutting so that it is difficult to get suitable men to take the work up. All these things act as a handicap and make peach growing extremely hazardous along the edges of the peach yellows territory. We are trying hard to keep it in check in our orchard but with little success, as it is scattered over the surrounding territory. I hope that we may soon have inspectors who will clean out diseased and worthless trees, and give those who wish to do so a chance to grow healthy peach trees.

Calhoun Co.

S. B. HARTMAN.

### LESSONS FROM A 1909 GARDEN.

It is surprising, in riding about the country, to see how few really respectable gardens there are on the farms. No doubt a great deal of this state of affairs comes from the disagreeableness to many men of caring for the garden. It is a little out of season to talk garden planting, but lessons are better understood now and, if read, ought to be remembered until another spring.

The old-fashioned way of planting most everything in beds so that there was little chance to use the horse and cultivator, is a mistake. We tho this year to be rid of a good part of the hoeing and weeding, so planted everything in rows a good three feet apart, and the rows where we planted cucumbers, squash and pumpkins are at least eight feet apart.

We planted nineteen rows of peas across the garden, sowing so they were not too thick. These have not been touched with a hand hoe. The horse and cultivator did the work and we have abundance of peas to eat and enough left for next year's seed, besides having canned a lot.

Our beets, six rows across the garden, were the finest I have seen this year. Cultivated with horse power and the twitch grass and weeds pulled when thinning them, gave us beet greens enough so we supplied the whole neighborhood, fed beets to chickens and threw some away, while those left did fine.

Between the rows of vine crops we used the disc harrow to cut out the twitch grass until the vines got too long.

Ten long rows of turnips and cattle feeds for a supply of green feed for the hens next winter and sweet corn for the table did well and with a good supply of all the good things, peas, beans, cucumbers, pumpkins, squash, etc., one can, if like us, live to a large extent for several months from his garden, caring little for meat. A good plump broiler once in a while for variety is very acceptable, along with fresh eggs, milk and cream.

We have done very little hand hoeing this year and we like the above plan of laying out the garden very much. Land is no

object with most farmers so it is better to take a little more and have abundance of fresh stuff, raised largely by horse. Maine. D. J. RYHER.

### TIMELY TOPICS FOR LATE AUTUMN.

How about that manure heap? It is wasting now; and the waste will go on just so long as it lies there exposed to the elements. Why not have it where the wash from the rains will distribute the liquids just where they are needed? The barn yard is rich enough now and a far better use to make of the accumulations would be to cover the fields or garden and fertility will thus be increasing rather than going to the bad. True enough, it is an awfully busy time now with the corn, potatoes, apples, etc., but the wasting manure heap is a costly leak that urgently calls for its share of attention. No matter whether time will admit of plowing it under or otherwise; if it is spread, (not left in piles), out where it is wanted for next year, the valuable portions will be doing their office work. In general, the better plan is to plow it under, and if it be on the garden, plow only deep enough to cover it, then in spring plow deep enough to go below it, and the subsequent cultivation will thoroughly incorporate it with the soil which is far better than having it at the bottom of a deep furrow where it will take half the summer for the roots to get down to the feeding ground. Rotting land ought, by all means to be plowed soon after the manure is spread; but level land will take care of itself and the manure, too, if it only has the opportunity.

### Hot Bed Sash.

It may be that some of the glass have been broken during the summer; and if so, it would save a pinch some time just when the whole glass are badly needed, to have them, and not the holes. So it is a good plan to look them over at the first opportunity and if the "holes" are in evidence, remove them by putting in a whole glass. It often happens, too, that the corners of the cash get loose in the joints and begin to wear or shrink in handling; and the longer they go the worse they become. Corner-irons such as are used for buggy seats, can be got very cheaply at the hardware stores or wagon shops, and these put on to the corners with heavy screws will give years of wear to the sash. Put them on the upper side so that the irons will not prevent the frames from fitting down closely on the bed.

A coat of paint will never come amiss, and if the sash are much weather-beaten two coats will be better. In this case the priming coat should be light as the oil will be what is most needed. Yellow ochre and white lead mixed will make a far more lasting body for the first coat than the white lead alone. If repaired now and stored away they will become thoroughly seasoned and be ready to withstand the racking exposure of the summer season. Now, this sermon will be lost upon the majority of people because so many, many haven't the hot-bed sash. Well, get them and be ready to use them in the spring and then the discourse will not be wasted upon so many delinquents.

### Winter Rhubarb.

Fruits of all kinds have been scarce and ruinously high in price and it is good practice to watch and see where we are at for the winter supply. Of all vegetables grown there is none that so nearly takes the place of apples as does rhubarb. It may be prepared in many ways that are appetizing and wholesome; and as to its medicinal qualities there is no question. A winter supply for family use may be grown so cheaply that the wonder is, why so few grow it while all the rest allow the whole thing to go by default. If you have no thrifty, strong growing roots of your own, very likely some neighbor will have them which, if not to be had for the asking, can be got very cheaply. A dozen roots, if judiciously handled and started to grow at different times, will supply a good sized family from January until April. If dug out before the ground is solidly frozen they can be left out doors or anywhere until required for use. There is no danger of injuring them, only get them dug before they have to be blasted out, and they will then take care of themselves. It will require four to five weeks (owing to the temperature), to grow large stalks, so they can be started at any time after they have been thoroughly frozen, but the freezing is imperative. They can then be set in the cellar or other warm place at various times and the supply may thus be unbroken during the entire winter. It is an easy and inexpensive proposition; so why do without it?

Wayne Co.

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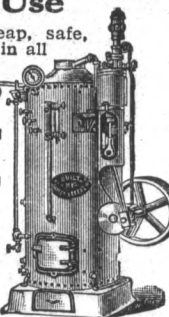
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Address all correspondence relative to the organization of new Clubs to Mrs. W. L. Cheney, Mason, Mich.

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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.

### FARMERS' CLUB FAIRS.

#### Southeast Vernon Club.

With an October day that was fair and balmy the Southeast Vernon Farmers' Club met at the home of Mr. and Mrs. Charles Pryor, three and a half miles southwest of Durand. There was a big crowd present, with a sprinkling of guests. It was the day for the annual fair of the club, at which time specimens of farm and garden crops are exhibited, while the house-wives show samples of canned fruits, fancy work, etc. There was a nice display of stuff, all of which attracted much interest all the morning. Prizes were duly awarded by the red and blue ribbon system.

In the exhibits were noticeable the specimens of smut nose corn by Moses West and some potatoes by Wm. Cook. The corn mentioned looked very good in every respect, and the feature of it was in the fact Mr. West planted this corn but 28 inches apart in the field. Mr. Cook had four potatoes on exhibition, the quartet coming from one hill. The combined weight of the four was seven lbs. and six ounces. The host of the day, Mr. Pryor, had some of his potatoes on exhibition, and everybody knows he has some reputation as being some pumpkins so far as spuds are concerned. There were other nice specimens of products shown, too.

The dinner hour was a featured time, the spread of good things prepared by the hostess being especially fine. So far as the program of the day was concerned, it was much shorter than usual, the spirit of the crowd seeming to be to keep out of doors as much as possible and put in the time visiting and enjoying the weather. A red hot ball game, participated in by the old and young, furnished a lot of amusement for an hour or so in the afternoon. The club will meet with Burns Grange in the latter's hall on Tuesday, Nov. 2, for an all day session.

### CLUB DISCUSSIONS.

**Have Interesting Question Box.**—The Howell Farmers' Club met at the home of Mrs. Alberta Warner, Thursday, Oct. 14. After the usual opening exercises an interesting program was carried out. Mr. VanWinkle gave a very entertaining and instructive talk on the Alaska-Yukon expedition. Mr. VanWinkle's talks are always good and this was no exception. The question box was found to contain ten questions but for lack of time but three were answered. "Which of the two, Cook or Peary discovered the North Pole, if it has been discovered," was assigned to Mrs. A. F. Peavy. She doubted whether it had been discovered at all. "Do you consider it good economy and wise legislation when the great state of Michigan has to borrow money to pay the salary of its officers?" was assigned to E. E. Howe. Did not think it economy but it seemed to be the situation. "What is your opinion of the state sending a train of cars over the state with a corn exhibit and men to lecture on corn and other farm products?" was assigned to Mr. Reader. He said that there is great need of education along this line. The amount of farm products can be doubled. The president then appointed the program committee for November and the club adjourned to meet the first Thursday in November.

**Interesting Features of the Fair.**—The Northeast Venice Farmers' Club met at Supervisor Kingsbury's, Oct. 14. As usual our club members were well represented and there were many visitors. The president and vice-president being absent the meeting was in charge of Mr. Martin. The roll call showed there are twenty-four families in the club at present. After devotional exercises Mrs. John White gave her ideas of several of the most interesting things she saw at the state fair. Her paper was very interesting. She gave a fine description of the air ship and conveyed a vivid impression of the sculptor in butter, telling what extraordinary models he presented, made entirely of butter; among the notable things was a butter house and barn, butter cow, butter boy and butter girl feeding some butter chickens. He had a thousand pounds of butter to use. She made us think he was a modern Raphael. She also described the farmer's auto. Her paper brought forth a lengthy discussion on the benefits of the fair.

**Our Flag.**—Mrs. Dennis Kildea read a

fine paper on "Our Flag." She gave us an historical review of our country, using "Old Glory" as a text. It stirred the patriotism that had been sleeping in our hearts. The company gave a noisy demonstration of the pleasure they had received and it produced several ideas for the question box. We were then invited to a sumptuous dinner, for which Mrs. Kingsbury will have the fine of one dollar for each article not allowed in our bill of fare. Again we were called to order. Business of the club was looked after and Milford Kingsbury gave a cute recitation. Walter Sheldon conducted the question box. There were thirteen questions and most were thoroughly discussed, and, as they were general questions, it was late before we were dismissed. Our next meeting is to be held at Mr. and Mrs. Ransom's.

**Discuss Local Market Problem.**—The Twentieth Century Farmers' Club met in October at the home of Cornelius Dancer, with a fair attendance, the larger proportion of whom were women. Music, recitations and select readings filled up the pauses. The question discussed was, "Would a general market in Jackson benefit the farmers and would they be willing to pay a reasonable amount for stall rent?" The discussion was opened by Robert Tygh, who was greatly in favor of the project, thinking that the stalls would be rented by the middlemen, who would buy the farmer's produce from his wagons, as he drove in, and that the same could then be classified and placed in stalls to be sold while the farmer went his way. He thought that much fruit, otherwise wasted, would be saved if there was a general market, as under present conditions grocers, if they have enough for the day's use, will risk their chance for tomorrow and refuse to buy. The farmer goes the rounds until disgusted, and resolves that it is better policy to let his products waste, than to waste them and his time also. Most of the others were opposed to the scheme, no two holding the same idea in regard to the manner of conducting a market. Some thought the farmer would be expected to rent the stalls and place their products therein and remain there until they were sold. That in event of a general market selling upon the street would be forbidden and all sales confined to the market. Another believed that you might sell by contract and not go near the market. Many declared they would not rent a stall and help the city buy a market, they would sell in the villages before they would rent a stall to sell a jar of butter or a dozen eggs. Mr. Tygh, in closing, was still of the same opinion that, as a financial benefit it would be profitable to help build the market. The club adjourned to meet with Mr. and Mrs. Edward Lee, the first Wednesday in November to discuss the beautifying of rural school grounds and cemeteries.

## GRANGE

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

### THE NOVEMBER PROGRAMS.

State Lecturer's Suggestions for First Meeting.

Men's hearts ought not to be set against one another but to be set with one another.—Thos. Carlyle.

Instrumental music and recitation. Co-Operative features of the Grange: 1, trade contracts; 2, fire and cyclone insurance; 3, marketing farm produce; 4, social co-operation.

The fight against Tuberculosis:—1, anti-tuberculosis laws in Michigan; 2, what organizations are doing; 3, what can individuals do?

Music and dialogue in charge of two young men.

### GRANGE FAIRS.

Butternut Grange, of Montcalm Co., held a very successful fair Oct. 8 and 9. Being favored with good weather and excellent exhibits, the attendance was very large, with visitors present from Crystal, Coral, Vickeryville, Carson City, Belding, Detroit and other places. That it was an affair of considerable magnitude is apparent from the fact that there were 474 different exhibits, shown by 91 exhibitors. Products of great merit were to be found in every department, the fruit display being exceptionally good. It seemed that no finer apples could be grown anywhere. The vegetable show attracted much attention and the showing of live stock was larger than in former years. The interest along this line has thus far been held back considerably by the Grange's inability to furnish proper accommodations for the animals. The ball games, races, tug of war, Cook's parade of North Pole explorers, etc., came off as advertised and gave general satisfaction.

The fair held by Summit City Grange, of Grand Traverse Co., Oct. 6 and 7, proved highly satisfactory to the Patrons of that organization. Those who attended were particularly impressed with the exhibition of fine horses for general purposes, there being 146 entries in this department alone. The display also included fruit and farm products of the highest order, canned fruit, fancy work, etc., some of which was remarkable for its quality. The Kingsley school displayed specimens of work done, and the baby show, in which there were 30 entries, attracted wide attention. The entire event was handled by the Grange and was so successful that these exhibitions will be annual events hereafter. There was a large number of Grange members from other sections present, and they, too, were surprised to see the showing made. The outsiders were royally entertained all day and at dinner in true hospitable Grange style.

### NEWAYGO'S GOOD POMONA.

A profitable and enjoyable meeting of Newaygo Pomona was held with Ashland Grange at its home-like hall, Oct. 5 and 6. The county convention was held before the regular program, Master Flint acting as chairman. Neal McCallum, Hesperia, and Mr. and Mrs. H. Zerlant, Sitka, were elected delegates to the State Grange.

When the program proper was taken up, Wm. Carter, Sr., led in the discussion of "Which is the best and cheapest roofing for houses and large barns?" He advocated steel roofing as the most economical because it is most durable. Some preferred the corrugated, but from experience he would use the flat roofing.

"How to make farming pay," was taken up by Neil McCallum. His visit to the West Michigan Fair brought to his notice the greatly improved machinery, much of which is being extensively used on the farm to lessen labor. The greatest science in farm work is to know how to feed stock to bring best results. The speaker declared that peas and oats and clover and corn are good in rotation. Give the orchard careful attention, was his advice.

Following this, Dr. J. M. Stone, handled the question, "Do patent medicines do more harm than good?" He maintained that if used judiciously they are all right. He does not condemn a medicine simply because it has a patent.

C. Kimbell opened discussion on the question, "Can the general farmer afford to grow apples. There were remarks by Bros. Stone, McCallum and Warren. The decision was that this climate is too diversified for the average farmer to confine himself to one special crop. The cost of growing an apple tree to ten years of age practically is the price of tree, preparing the soil, planting tree and first mulching. With proper care they will help financially and the general farmer cannot afford to be without them.

"The influence of the Grange in the development of its members," was opened by Mrs. Warren and Mrs. Eveloch. They held that the influence of the Grange is good if we avail ourselves of its opportunities. We cannot know our talents until we use them. Make an effort to do what is asked of you to help in the literary line. The Grange has a way of developing the best that is in you. Keep the lesson that is given in degree work, persevere, push forward and improve mentally, morally and physically. Never shirk duty; make an honest effort to do something to make our own lives and that of others brighter.

"As a rule which pays better, to market potatoes from the field or to store them?" was the topic assigned Mr. Warren. The opinion seemed to prevail that if conditions are favorable it pays best to dispose of potatoes in the fall.

"Why is the anti-saloon move so progressive and what has been its effect on business, morals and politics," was discussed by Mrs. M. A. Massey, who classed the temperance movement among the most progressive issues of the day, and brot about by the continued work of the W. C. T. U. The speaker maintained that the effect of local option on morals is for good, its effect on trade is for good, and the effect on politics will be shown when local option can carry elections.

The evening session was made a success by a class of 30 being initiated into the mysteries of the order, the largest class taken in for several years.

### THREE MORE U. P. GRANGES.

**Eagle River Grange.**—Deputy John Wilde organized a Grange at Eagle River, Keweenaw Co., Monday evening, Oct. 11, with the following officers: Master, Jas. Phillips; overseer, John Hepting; lecturer, Alice Kelley; steward, Otto Sibolsky; ass't steward, Edmond Bruneau; lady ass't steward, Mrs. E. Bruneau; chaplain, Mrs. J. Phillips; treasurer, Wm. Long; secretary, Lucy Daley; gate keeper, Laurence Daley; Ceres, Elizabeth Phillips; Pomona, Mrs. W. Long; Flora, Mrs. J. Hepting.

**Arnold Grange.**—A Grange was organized by Deputy Wilde at Arnold, Wells township, Marquette Co., Thursday evening, Oct. 7, with the following officers: Master, Wm. J. Jaeger; overseer, Wilfred Vian; lecturer, Henry Arnold; steward, Chas. West; ass't steward, G. Bruce; lady ass't steward, Mrs. H. Arnold; chaplain, Wm. Abramson; treasurer, H. Vian; secretary, John Bruce; gate keeper, Peter Kellenleim; Ceres, Edith Vian; Pomona, Hulda Abramson; Flora, Mrs. C. West.

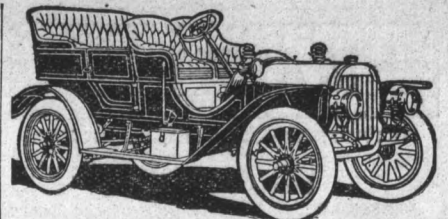
**Close of the U. P. Campaign.**—For the first time in the history of the Grange in Michigan the order is organized in every county in the state. Tuesday evening, Oct. 2, State Deputy Wilde organized a Grange of 102 members at Baraga, Baraga Co., and by this act the last wanderer joined the Grange fold and Baraga became a Grange county. The following are the officers of Baraga Grange: Master, Peter Girard; overseer, Andrew Giddings; lecturer, Hakan Lundin; steward, Wm. Bohmieri; ass't steward, John Stone; lady ass't steward, Clara Price; chaplain, Francis De Lude; treasurer, Chas. Wolmar; secretary, Robt. Price; gate keeper, O. C. Olsen; Ceres, Mrs. H. Hanson; Pomona, Mrs. C. Davey; Flora, Mrs. H. Lundin. Altho Deputy Wilde is still in the upper peninsula holding meetings with Granges already organized, no more new Granges will be organized until next spring.

### COMING EVENTS.

**National Grange.** Forty-third Annual Session, at Des Moines, Ia., Nov. 10-19.  
**Michigan State Grange.** Thirty-seventh Annual Session, at Traverse City, December 14-17.

**Pomona Meetings.**  
Lapeer Co., with Mayfield Grange, at Lapeer, Friday and Saturday, Oct. 29 and 30. Saturday's session will be "Young People's Pomona."  
Muskegon Co., with Muskegon Grange, Thursday and Friday, Oct. 28-29.

Oceana Co., with Sylvan Grange, Saturday, Nov. 13. Bro. J. K. Campbell, state speaker. Election of officers.



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# MARKETS

## DETROIT WHOLESALE MARKETS.

October 27, 1909.  
Grains and Seeds.

**Wheat.**—The promised grip of the bears upon the wheat market did not materialize the past week and, while the trade still shows that the dealers in the southwest are not paying the large premiums that they were and the movement of the grain in all the large producing sections is increasing beyond the receipts of a year ago, the prices are on practically the same basis as ruled at the close of the last period. The millers are busy but the edge has been taken from the flour market and this, with the southwest condition has been used as the club of the bears. The bulls are looking to the northwest where the millers are working hard and show no tendency to reject offerings from the farmers. The offerings in some sections are smaller than a week ago. Cables are a little lower. The visible supply is increased but a little over a half million bushels. One year ago we were paying \$1.02 1/4 per bu. Quotations for the week are:

	No. 2	No. 1	Dec.	July.
Thursday	1.23	1.23	1.24	1.25 1/4
Friday	1.24 1/4	1.24 1/4	1.25	1.27
Saturday	1.24 1/4	1.24 1/4	1.25	1.27
Monday	1.23 1/4	1.23 1/4	1.24 1/4	1.26 1/4
Tuesday	1.23 1/4	1.23 1/4	1.24 1/4	1.26 1/4
Wednesday	1.23 1/4	1.23 1/4	1.24	1.25 1/4

**Corn.**—Farmers throughout the cornbelt, as well as in those states not particularly designated as corn states, have had excellent weather for securing the corn crop, and as a result the market has weakened at the market centers, trading being continued at slight reductions from the prices offered a week ago. The visible supply decreased, the offerings apparently being taken by consumers. The local market is quiet. A year ago the price for No. 3 corn on this market was 77 1/2¢ per bu. Quotations for the last week are:

	No. 2	Yellow.
Thursday	63 3/4	64 3/4
Friday	63 3/4	64 3/4
Saturday	63 3/4	64 3/4
Monday	63 3/4	64 3/4
Tuesday	63 3/4	64 3/4
Wednesday	64 3/4	65 3/4

**Oats.**—The consignments from farmers and primary elevators to the oat market have been small and the market is dull with practically nothing doing on the local board of trade the past week. As a result prices are working within a narrow range with scarcely any tendency in either direction. The visible supply shows a material decrease for the week. Last year at this date the price for No. 3 oats was 50 1/2¢ per bu. Quotations for the week are:

	Standard.
Thursday	41 1/4
Friday	42
Saturday	42
Monday	42
Tuesday	42
Wednesday	42

**Beans.**—Buyers of beans were busy the past week, and while the reported sales amounted to nothing, the prices were advanced by the bidding and the market as a consequence looks even stronger than it did seven days ago. The crop is large but the high price of other foodstuffs and the shortage of the crop a year ago gives the market extra support on the side of the bulls. The farmers having the legumes should profit by the conditions. Quotations for the week are:

	Cash.	Nov.
Thursday	\$2.05	\$1.98
Friday	2.05	2.00
Saturday	2.12	2.00
Monday	2.12	2.00
Tuesday	2.12	2.00
Wednesday	2.12	2.00

**Cloverseed.**—Figures have been juggled in this department of the market the past week, there being a slump of about 25¢ in the cash and futures on Monday. While the decline was very prominent it is the general opinion that the undertone of the trade will come to the relief of the sellers. Alsike is unchanged. Quotations are:

	Prime Spot.	Mar.	Alsike.
Thursday	\$9.10	\$9.35	\$8.00
Friday	9.15	9.45	8.10
Saturday	9.25	9.50	8.10
Monday	9.00	9.20	8.00
Tuesday	8.95	9.20	8.00
Wednesday	8.95	9.05	8.00

**Rye.**—An improvement in the supply resulting from the advance of a week ago has caused a decline of a fraction since the last report. Cash No. 1 is quoted at 77 1/2¢ per bu.

### Visible Supply of Grain.

	This week.	Last week.
Wheat	25,650,000	25,070,000
Corn	3,360,000	3,493,000
Oats	12,747,000	13,380,000
Rye	619,000	576,000
Barley	3,987,000	3,977,000

### Flour, Feed, Provisions, Etc.

**Flour.**—Market strong, with prices unchanged. Quotations are as follows:

Clear	\$5.55
Straight	\$5.60
Patent Michigan	5.90
Ordinary Patent	5.75

**Hay and Straw.**—Trade steady. Carlot prices on track are: No. 1 timothy, new, \$13.50@14; No. 2 timothy, \$12@13; clover, mixed, \$12@13; rye straw, \$7@7.50; wheat and oat straw, \$6.50@7 per ton.

**Feed.**—Market steady last week's prices. Bran, \$24 per ton; coarse middlings, \$25; fine middlings, \$29; cracked corn, \$27; coarse corn meal, \$27; corn and oat chop, \$25 per ton.

**Potatoes.**—This trade is going along on the same level with a firm tone and values undisturbed. Michigan goods now quoted at \$55@60c per bu.

**Provisions.**—Family pork, \$25@26; mess

pork, \$24; medium clear, \$25; kettle rendered lard, \$14 1/2¢; pure lard, 14¢; bacon, 17 1/2¢@18 1/2¢; shoulders, 12 1/2¢; smoked hams, 14 1/2¢; picnic hams, 12 1/2¢.

### Dairy and Poultry Products.

**Butter.**—There was an improvement in prices for both dairy and creamery butter the past week. The local deal is in harmony with changes in outside markets. Demand is steady and strong and the offerings fair. Quotations are: Extra creamery, 31¢ per lb; firsts, 30¢; dairy, 24¢; packing stock, 23¢.

**Eggs.**—The scarcity of eggs has made higher prices possible and the market is dearer by 1¢ than a week ago. Demand steady. Fresh offerings, case count, cases included, are quoted at 25¢ per doz.

**Poultry.**—There is an easy tone to this trade, altho the chicken deal is a little better so far as prices are concerned, than last week. Other prices are unchanged. The following are the ruling quotations: Hens, 12@12 1/2¢; roosters, 9¢; ducks, 12@13¢; geese, 9@10¢; turkeys, 15@16¢; broilers, 13¢ per lb.

**Cheese.**—Steady. Michigan full cream, 16¢; York state, 17¢; Limburger, 16 1/2¢; schweitzer, 20¢; brick cream, 17¢ per lb.

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

### Fruits and Vegetables.

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

**Onions.**—Domestic offerings, \$2 per bbl; Spanish, \$1.40 per crate.

**Pears.**—Common, \$1@1.25 per bu.

**Grapes.**—Catawba, 14¢; Niagara, 12¢ per 4-lb. basket; Concord, 18¢ per 8-lb. basket.

**Apples.**—Best grades, \$2.50@3 per bbl; common, \$1.50@2.

**Cranberries.**—Cape Cod berries selling at \$2.25@2.50 per bu.

**Quinces.**—\$1.25@1.50 per bu.

**Vegetables.**—Beets, 50¢ per bu; carrots, 50¢ per bu; cauliflower, \$1.25 per doz; eggplant, \$1.20@1.25 per doz.; green onions, 12 1/2¢ per doz; green peppers, 75¢ per bu; lettuce, 75¢ per bu; mint, 25¢ per doz; parsley, 25¢@40¢ per doz; radishes, 8@10¢ per doz; spinach, 60¢ per hamper; summer squash, 30¢ per box; watercress, 25¢@30¢ per doz; wax beans, \$3@3.25 per bushel.

### OTHER MARKETS.

#### Grand Rapids.

Not much change is noted in grain prices. Wheat is off 1¢, the mills paying \$1.19. Beans are higher, quotations now ranging around \$1.85 per bu. The egg market is 1¢ higher. Creamery butter has advanced 1/2¢. The potato market is weaker, the market at loading stations outside ranging from 30@35¢, while Grand Rapids prices for small lots do not exceed 55¢. Live poultry, with exception of turkeys, are 1¢ lower. Dressed hogs remain steady at 10@10 1/4¢.

Quotations follow:

Grain.—Wheat, \$1.19; oats, 42¢; corn, 64¢; buckwheat, 65¢ per bu; rye, 64¢.

Beans.—Machine screened, \$1.85.

Butter.—Buying prices, Dairy, No. 1, 23@24¢; creamery in tubs or prints, 30 1/2¢ per lb.

Eggs.—Case count, 24¢.

Apples.—45¢@65¢; pears, 90¢@1.25;

quinces, \$2 per bu; grapes, 11@12¢ per 8 lb. basket.

Vegetables.—Potatoes, 45¢@55¢; tomatoes, 35¢@40¢ per bu; cabbage, 30¢@40¢ doz; cauliflower, \$1.50@1.60 per doz; onions, 60¢; beets, 40¢ per bu; carrots, 40¢; turnips, 35¢; Hubbard squash, 1¢ lb.

Hogs.—Dressed, 10@10 1/4¢.

Live Poultry.—Fowls, 10@11¢; roosters, 6@7¢; turkeys, 14@15¢; spring chickens, 10@12¢; spring ducks, 10@12¢; young geese, 9@10¢; young turkeys, 16@17¢.

#### Chicago.

Wheat.—No. 2 red, \$1.19@1.21; December, \$1.04 1/4; May, \$1.04 1/4.

Corn.—No. 2, 61¢@61 1/4¢; December, 59 1/4¢; May, 61 1/4¢.

Oats.—No. 3 white, 39 1/4¢@40 1/4¢; December, 39 1/4¢; May, 42 1/4¢.

Butter.—Market firm at last week's advanced values, with business active. Creameries, 26@30¢; dairies, 23@28¢.

Eggs.—The better grades show another advance in values. Prime firsts, 26 1/2¢; firsts, 24 1/2¢; at mark, cases included, 18¢ per doz.

Hay and Straw.—Market strong at unchanged values.—Quotations: No. 1 timothy, \$14.50@15; No. 2, \$13.50@14; No. 2 mixed, \$10.50@11; rye straw, \$8.50@9.50; oat straw, \$6.50@7; wheat straw, \$5.50@6.

Potatoes.—Heavy receipts have forced a lowering of prices; trade fairly good at the decline. Choice to fancy now quoted at 46@48¢ per bu; fair to good, 43@45¢.

#### St. Louis.

Grain.—Wheat, No. 2 red, \$1.20@1.26; corn, No. 3 white, 61 1/4¢; No. 3 yellow, 61¢; oats, No. 2, 39¢; rye, No. 2, 74 1/2¢.

Hay.—Timothy and clover-mixed, quiet but firm. High-grade clover scarce and in demand. Alfalfa coming in more freely. Timothy, No. 1, selling at \$14@15.50 per ton; No. 2, \$12@13; No. 3, \$9@10; clover, No. 1, \$14@16; No. 2, \$13; clover mixed, \$11@13.50; alfalfa quotable at \$17@17.50 for No. 1 and \$15@16 for No. 2.

Potatoes.—The general run of northern stock is poor and moving slowly at 45¢@48¢ per bu; there is a limited demand for fancy, smooth, well-matured northern tubers, such stock commanding 50@55¢ per bu.

#### New York.

Butter.—Market is steady at improved values. Western factory firsts, 24@25¢; creamery specials, 32@32 1/2¢.

Eggs.—Firm and higher. Western firsts to extras, 26@34¢; seconds, 24@25 1/2¢ per doz.

Poultry.—Dressed, quiet and unchanged. Western chickens, 13@16¢; fowls, 12 1/2¢@15¢; turkeys, 18@20¢ per lb. Live—Weak. Fowls, 15¢; western chickens, 14¢; turkeys, 15¢.

Potatoes.—Market holding steady on high-grade stock; medium and low grades neglected and lower. State and Michigan

in bulk, are selling at \$1.50@1.87 per 180 lbs.

Grain.—Wheat, No. 2 red, \$1.21 1/4 per bu; corn, No. 2, 69 1/2¢ for old; oats, mixed, 42 1/2¢@43¢.

Hay and Straw.—Market barely steady under heavier receipts, with medium grades of timothy in best request. Clover and clover mixed also selling well. Straw very firm with present needs not fully supplied. Hay, timothy, prime, large bales, per 100 lb. \$1; No. 3 a 1, 85¢@97 1/2¢; shipping, 80¢@82 1/2¢; packing, 50¢@55¢; clover and clover mixed, 70¢@95¢; straw, long rye, 80¢@90¢; short and tangled rye, 55¢@60¢; oat and wheat, 35¢@40¢.

#### Boston.

Wool.—The tone of the wool trade is strong. Bins in this market are said to contain but around 50,000,000 lbs. of raw material, which is an unusually small supply for this time of the year. On this account it is the opinion of the dealers that prices will not go below the present basis for ten months, and it is possible that better figures will be reached since the demand for manufactured goods is unusually brisk and the mills are doing a good volume of work. Quotations for the leading grades are: Ohio and Pennsylvania fleeces—XX, 36¢@37¢; No. 1 washed, 40¢@41¢; fine unwashed, 27¢@28¢; fine unwashed, 30¢@31¢; half blood combing, 37¢; three-eighths blood combing, 36¢@37¢; quarter blood combing, 34¢@35¢; delaine washed, 40¢@41¢. Michigan, Wisconsin and New York fleeces—Fine unwashed, 25¢@26¢; delaine unwashed, 31¢@32¢; half blood unwashed, 34¢@35¢; three-eighths blood unwashed, 34¢@35¢; quarter blood, 33¢@34¢. Kentucky, Indiana and Missouri—Three-eighths blood, 34¢; quarter blood, 32¢@33¢.

#### Elgin.

Butter.—Market firm at 31¢ per lb., which is an advance of 1¢ over last week's price. Sales for the week amounted to 679,200 lbs., compared with 685,700 lbs. for the previous week.

### THE LIVE STOCK MARKETS.

#### Buffalo.

October 25, 1909.  
(Special report by Dunning & Stevens, New York Central Stock Yards, East Buffalo, N. Y.)

Receipts of sale stock here today as follows: Cattle, 220 loads; sheep and lambs, 16,000 head; hogs, 10,400; calves, 1,200 head.

We had too many common cattle on the market today and the trade on this kind was from 10@15¢ lower than last week. The best fat cattle sold about steady. The highest price reached today was \$6.50 but had there been any real good cattle on sale they would have sold higher. Cows and heifers sold lower, there being a good many from western markets. Good stockers and feeders sold steady and bulls were in good demand. The biggest decline was on trimmers. Good fresh cows and springers sold strong but the demand for late springers is not very good.

We quote: Best export steers: \$6.50@ \$7; best 1,200 to 1,300-lb. shipping steers, \$6@6.25; best 1,100 to 1,200-lb. do., \$5.40 to 5.65; medium 1,050 to 1,150-lb. steers, \$4.75@5; light butcher steers, \$4.25@4.50; best fat cows, \$4@4.50; fair to good cows, \$3@3.50; trimmers, \$1.50@2.25; best fat heifers, \$4.75@5; fair to good do., \$3.75@4; common do., \$3.25@3.50; best feeding steers, 800 to 900-lb. dehorned, \$4.40@4.60; 700 to 750-lb. dehorned stockers, \$3.75@4; 600 to 650-lb. do., \$3.25@3.50; little common stockers, \$3@3.25; best bulls, \$4.25@4.75; bologna bulls, \$3.40@3.60; stock bulls, \$3@3.25; best fresh cows and springers, \$5@6; fair to good do., \$3.50@4.50; common do., \$2.50@3.

With a good demand from local packers as well as eastern shippers the hog trade ruled active at prevailing prices and a fair clearance was made. Market closed about steady at opening prices.

We quote: Mixed, medium and heavy, \$7.85@7.90; best yorkers, \$7.80@7.90; light yorkers, \$7.75@7.80; pigs, \$7.70@7.75; roughs, \$7.10@7.25; stags, \$6@6.25.

The lamb market opened slow but closed active with about everything sold.

We quote: Best lambs, \$7.15@7.25; fair to good, \$6.50@7.10; culls, \$5.50@6; skin culls, \$4@5; yearlings, \$5.25@5.50; wethers, \$4.75@5; ewes, \$4.25@4.50; cull sheep, \$2@3; best calves, \$8.75@9; fair to good do., \$7@8.50; heavy do., \$4@5.

#### Chicago.

October 25, 1909.  
Cattle. Hogs. Sheep.  
Receipts today ..... 26,000 24,000 40,000  
Same day last year .. 18,056 23,571 11,187  
Received last week .. 85,515 97,854 136,194  
Same week last year .. 78,431 161,403 93,159

Cattle were marketed last week so freely that great weakness was developed, and the greater part had to be sold 25@35¢ lower, the diminished offerings of strictly prime steers furnishing a market exception. Still another high record was made by sales of extremely heavy long-fleeced cattle at \$9, that price not having been paid on the open market before since August, 1902, and with that exception it is the best price obtained since 1882. But it should be understood that sales of cattle at \$8@9 are too limited to cut much of a figure, and on Monday last week out of 36,859 head received none were good enough to bring over \$8.35. A few inferior steers sold at \$5.10@7.50, cattle classed as "good" bringing \$7@7.90. Many cows and heifers were 25¢ lower, sales being at \$3.25@6.35 and occasionally at a higher figure. Canners and cutters sold at \$2@3.20, bulls at \$2.50@5, calves at \$2.50@9.25 per 100 lbs., and milkers and feeders were largely 5¢@25¢ lower, the better class of these cattle excepted. Stockers going at \$2.80@4.50 and feeders at \$4.20@5.35, but very few buyers would pay over \$5. Western range cattle were shipped in freely and while the best were firm, others were largely 15¢@25¢ lower, cows and heifers selling at \$3@5.10 and

steers at \$4.25@7.50, with sales of stocker and feeder range steers at \$3.25@4.75. The market has been remarkably uneven for medium steers from farming districts, and it was difficult to tell what such lots would sell for. As a rule, cattle sold much higher than in former years.

Today, Monday, fat cattle were remarkably scarce and 10@15¢ higher, with some sellers quoting a greater advance. Other kinds were unchanged and fairly active. About 8,000 western range cattle arrived, and the best went a dime higher.

Hogs have continued to be marketed here and elsewhere in the west in much smaller numbers than for corresponding periods in recent years, this being due in part to the general shortage in feeding sections and partly to a determination upon the part of many farmers to hold back their swine. At time a marked improvement in the average quality of the receipts was seen, but still it was remarked that the proportion of prime heavy butcher hogs included in the offerings was small. Demand on eastern shipping account continued extremely small, and on several days a great many hogs were carried over unsold. In great measure the declining tendency of prices was checked, and some sharp advances took place, accompanied by good buying of the choicer lots of matured hogs. Provisions were in a strong position, with small stocks, especially of lard. Today, Monday, hogs were in small supply and active at an advance of 10¢, sales being made at \$7.25@8.05. Pigs sold mainly at \$6@7.35.

Sheep and lambs have been coming to market in extremely liberal numbers recently, especially from the ranges, and country buyers in search of range lambs for feeding have had a fine opportunity for stocking their feed lots. This they have done actively at ruling steady prices, most feeder lambs going at \$6.25@6.70, with inferior lots selling down to \$5.50. Range feeding ewes were purchased for \$1.75@2.75 and feeding wethers at \$4@4.40, while feeding yearlings brot \$5@5.25. Breeding ewes were active at \$4@5.25. A great many range culls and thin ewes have been marketed by rangemen before going into winter quarters, and this accounts for the poorer average quality of recent receipts. Prices for mutton flocks have averaged lower, especially for the poorer lots. Today saw fair activity and unchanged prices, the proportion of fat offerings being small. Lambs were salable at \$3.75@7, wethers at \$4.25@4.85, yearlings at \$5@5.50, ewes at \$2@4.50 and rams at \$2@3.50.

### LIVE STOCK NOTES.

A year ago sheepmen were paying \$4.75 @5.50 per 100 lbs. in the Chicago market for fair to choice range lambs adapted for feeding purposes. This year feeder lambs have ruled very much higher owing to the smaller percentage of such flocks marketed, far more lambs having been made fat before being shipped in. Up to a few weeks ago there was a sadly deficient supply of feeder lambs, but since then the supplies have undergone a marked increase in western markets, and large numbers have been sent to feeding districts. Some weakness in prices have been seen, but there were so many delayed country buying orders to be filled that no big decline in prices took place, and recent sales of desirable feeding lambs have been made in the Chicago market at \$6.25@6.70 per 100 lbs. It is difficult to arrive at an estimate of the number of lambs and sheep that will be fattened the approaching winter, but there seems good reasons for expecting a smaller number than were fed last winter. The dearthness of feed keeps the professional feeders from taking hold, and the business is left to farmers.

The annual convention of the American Meat Packers Association at Chicago recently was largely attended, and an important letter from Dr. A. D. Melvin, chief of the bureau of animal industry, was read to the delegates, in which the writer stated that he has under consideration a plan for the eradication of tuberculosis from certain limited areas, the work to be done in co-operation with the states within which these areas lie and an attempt to demonstrate the possibility of tuberculosis eradication. General Michael Ryan, president of the association, voiced the feeling of the packers that it was an injustice done to the meat packers to compel them to suffer the loss on condemned hogs, cattle and sheep in the open market and pay prevailing prices after they were bot as good and sound. The annual losses from live stock diseases has been placed at \$15,000,000. The members of the executive committee gave as a reason for the high prices of meats the increased consumption of meat and the failure of cattle raisers to keep abreast of the demand.

### FOR SALE—Holstein Bull Calf,

born September 11, 1909; sired by Judge Hengerveld De Kol, a son of the great Hengerveld De Kol with two 30-lb. daughters and 102 daughters in advanced registry, clearly the greatest bull of the breed. The dam of Judge Hengerveld De Kol is Johanna Vernon De Kol with a seven-day record of 28.59 lbs. of butter. Her sire was Johanna Rue 3rd's Lad with 12 daughters above 20-lbs. in seven days and 27 in advanced registry, and her dam was Susie Vernon De Kol, with a butter record of 22, and a daughter of Susie De Kol, by many thought to be the greatest cow of the breed. This calf's dam was Pauline Sadie Wayne, a junior two-year-old heifer, with a record of nearly 13 lbs. in seven days, made during the hot days of September last and under unfavorable conditions; a direct descendant on the sire's side of Pietertje Hengerveld Count De Kol and on the dam's side of Sadie Vale Concordia, with a record of 30.64 lbs. This calf is mostly white and a fine individual.

Pan'ine Sadie Wayne will be retained in my herd, and I believe will make a record that will be a credit to the breed.

This calf, from his appearance and breeding, will be a credit to head any herd, and will be sold at a reasonable price. D. D. AITKEN, Flint, Mich.

MAGNIFICENT yearling Holstein bull, A. R. O. backing both sides, none finer. Reasonable price. ROUGE MONT FARMS, Detroit, Mich.



## 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.

October 28, 1909.  
Thursday's Market.

## Cattle.

Receipts, 1,167. Market steady at last week's close. Quality common. Stockers and feeders active.

We quote: Extra dry-fed steers and heifers, \$5@6; steers and heifers, 1,000 to 1,200, \$4.50@5; steers and heifers, 800 to 1,000, \$4@4.25; grass steers and heifers that are fat, 800 to 1,000, \$4@4.25; grass steers and heifers that are fat, 500 to 700, \$3.50@3.75; choice fat cows, \$3.75@4; good fat cows, \$3.50@3.75; common cows, \$2.50@2.75; canners, \$1.25@2; choice heavy bulls, \$3.75@4; fair to good bolognas, bulls, \$3.25@3.50; stock bulls, \$3; choice feeding steers, 800 to 1,000, \$4@4.25; fair feeding steers, 800 to 1,000, \$3.75@4; choice stockers, 500 to 700, \$3.50@3.75; fair stockers, 500 to 700, \$3.25@3.50; stock heifers, \$2.50@3; milkers, large, young, medium age, \$4@6; common milkers, \$2.50@3.50.

Bishop, B. & H. sold Bresnahan 2 stockers av 400 at \$3.17, do av 580 at \$3.35, 2 canners av 85 at \$2.1 bull weighing 1,360 at \$3.75; to Rattkowsky 4 butchers av 580 at \$3.25, 4 do av 585 at \$3.25, 2 do av 400 at \$3; to Hammond, S. & Co. 5 do av 592 at \$3.1 cow weighing 900 at \$3.7, do av 553 at \$2.30; to Mich. B. Co. 1 do weighing 880 at \$2.50, 2 do av 1,035 at \$3.3, 3 butchers av 916 at \$3.25, 3 steers av 900 at \$4.50; to Bondine 11 stockers av 680 at \$3.25; to Stone 11 do av 545 at \$3.50; to Austin 4 heifers av 442 at \$3; to Richardson 2 stockers av 560 at \$3.40, 4 do av 590 at \$3.45; to Hupp 11 butchers av 633 at \$3.50, 4 do av 567 at \$3.25; to Sullivan P. Co. 2 cows av 55 at \$3.25, 6 do av 790 at \$2.35; to Stone 6 stockers av 500 at \$3.25; to Crippen 1 feeder weighing 330 at \$4.25, 23 do av 835 at \$4.25; to Schuman 3 butchers av 450 at \$3; to Greene 5 feeders av 746 at \$3.25, 16 do av 730 at \$3.75; to Hammond, S. & Co. 25 steers av 870 at \$4; to Richardson 3 stockers av 575 at \$3.50; to Eschrich 4 steers av 500 at \$3.15, 2 do av 625 at \$3.

Spicer, M. & R. sold Mich. B. Co. 27 cows and heifers av 900 at \$4.30, 28 steers av 850 at \$4.15, 29 do av 894 at \$4.15; to Bresnahan 1 canner weighing 810 at \$2.25, 1 bull weighing 1,650 at \$4.4 canners av 712 at \$2.1 do weighing 630 at \$1.25, 7 stockers av 517 at \$3.25; to Rattkowsky 8 butchers av 646 at \$3.25, 2 cows av 1,085 at \$3.25; to Regan 6 butchers av 516 at \$3.25; to McDonald 2 bulls av 845 at \$3; to Hammond, S. & Co. 1 heifer weighing 1,000 at \$4.50, 2 steers av 1,025 at \$4.50; to Greene 4 stockers av 690 at \$3.50; to Schlischer 13 butchers av 718 at \$3.50, 4 cows av 837 at \$2.75; to Bresnahan 8 do av 1,062 at \$3.10, 10 do av 907 at \$2.50; to Regan 13 heifers av 565 at \$3.30; to Richardson 3 stockers av 533 at \$3.25; to Hammond, S. & Co. 2 bulls av 1,250 at \$3.75, 2 do av 950 at \$3.75, 2 steers av 950 at \$4.50.

Roe Com. Co. sold Mich. B. Co. 10 butchers av 933 at \$3.25; to Bresnahan 8 stockers av 570 at \$3.35; to Breitenbach Bros. 15 heifers av 700 at \$3.50, 17 do av 786 at \$3.75; to Rattkowsky 1 cow weighing 1,000 at \$3.25, 2 do av 750 at \$3; to Kamman B. Co. 12 steers av 964 at \$4.85, 7 do av 800 at \$4.10; to Stone 14 stockers av 500 at \$3.40; to Bresnahan 8 cows av 856 at \$2.25; to Mich. B. Co. 2 cow and bull av 1,050 at \$3.50, 6 cows av 1,018 at \$3.50, 2 do av 885 at \$3; to Bush 28 stockers av 610 at \$3.60, 2 do av 580 at \$3.65, 3 do av 633 at \$3.65; to Regan 20 butchers av 549 at \$3.25, 2 do av 550 at \$3.10; to Newton B. Co. 4 do av 895 at \$4.3, 3 do av 666 at \$3.40, 10 do av 686 at \$3.60; to Kamman 13 steers av 850 at \$4.25.

Haley sold Breitenbach Bros. 8 cows av 845 at \$2.30.  
Same sold Goose 8 cows av 831 at \$2.80.  
Johnson sold Lowenstein 31 stockers av 600 at \$3.80, 1 bull weighing 860 at \$3.40.

Haley sold Hammond, S. & Co. 7 butchers av 736 at \$4.1 bull weighing 980 at \$3.65, 1 heifer weighing 730 at \$3.75.

Sandall & T. sold same 2 cows av 1,125 at \$3.75.

Bohn sold same 10 butchers av 863 at \$4.25, 6 do av 760 at \$3.75, 2 bulls av 1,075 at \$3.25, 10 cows av 990 at \$3.25.

Haley sold Bresnahan 9 butchers av 566 at \$3.40, 2 cows av 1,010 at \$3.10, 2 do av 895 at \$2.65.

Same sold Robb 6 stockers av 583 at \$3.50.

Haley sold Hupp 2 bulls av 625 at \$3.10, Same sold Fronn 5 heifers av 622 at \$3.50.

Same sold Sullivan P. Co. 6 butchers av 640 at \$3.50, 6 do av 583 at \$3.50, 1 steer weighing 930 at \$4.13 butchers av 761 at \$3.60, 5 do av 806 at \$3.75.

Johnson sold same 4 do av 780 at \$4.25, 2 steers av 1,145 at \$6.

## Veal Calves.

Receipts, 433. Market steady at last week's opening. Best, \$7.50@8; others, \$4@7; milch cows and springers steady.

Johnson sold Sullivan P. Co. 2 av 110 at \$7.25.

Kalaher sold Fitzpatrick 8 av 150 at \$7. Duell sold same 8 av 125 at \$7.50.

Cheney & H. sold Breitenbach 1 weighing 150 at \$5.7 av 140 at \$7.50.

Kendall sold Mich. B. Co. 2 av 135 at \$7.75, 21 av 145 at \$7.75.

Roe Com. Co. sold McGuire 6 av 155 at \$8.1 weighing 120 at \$7; to Goose 13 av 294 at \$3; to Sullivan P. Co. 1 weighing 140 at \$8.25.

Stephens sold Burnstine 14 av 180 at \$8. Haley sold same 2 av 210 at \$4.50, 1

weighing 150 at \$8.2 av 155 at \$7.50.  
Adams sold same 5 av 125 at \$7.25.  
Hawley & S. sold same 3 av 150 at \$7.25.  
Spicer, M. & R. sold Breitenbach Bros. 7 av 155 at \$7.50; to Mich. B. Co. 3 av 125 at \$7.50; to Rattkowsky 1 weighing 210 at \$8; to Breitenbach Bros. 5 av 115 at \$7.25, 3 av 145 at \$7; to Goose 6 av 155 at \$5.

Tubbs & S. sold Rattkowsky 2 av 210 at \$6, 4 av 155 at \$7.

Prucka sold same 6 av 150 at \$7.50.

Wagner sold Newton B. Co. 2 av 135 at \$8.

Haley sold same 2 av 90 at \$5.

Bishop, B. & H. sold Mich. B. Co. 4 av 153 at \$8.5 av 160 at \$6, 4 av 110 at \$6, 4 av 180 at \$8, 1 weighing 140 at \$7.50, 10 av 138 at \$8, 4 av 125 at \$7.50; to Hammond, S. & Co. 1 weighing 180 at \$3; to Sullivan P. Co. 1 weighing 150 at \$8.

## Sheep and Lambs.

Receipts, 3,223. Market steady at last week's opening. Prices. Feeders in active demand.

Best lambs, \$6; fair to good lambs, \$5.50@6; light to common lambs, \$4.50@5.25; fair to good sheep, \$3.50@4; culls and common, \$2@3.

Roe Com. Co. sold Mich. B. Co. 55 lambs av 70 at \$5.75, 33 sheep av 88 at \$3.25; to Sullivan P. Co. 29 do av 75 at \$3, 10 lambs av 67 at \$5.50, 135 do av 83 at \$6.25; to Thompson Bros. 34 sheep av 90 at \$3.25, 21 do av 110 at \$3.50, 10 lambs av 69 at \$5.25; to Barlage 35 do av 65 at \$5.50.

Haley sold Mich. B. Co. 36 lambs av 63 at \$6, 13 do av 55 at \$5.25, 65 do av 60 at \$5.25.

Wagner sold Newton B. Co. 14 lambs av 70 at \$5.50.

Haley sold same 2 do av 85 at \$6, 8 sheep av 125 at \$4.

Spicer, M. & R. sold Stocker 29 lambs av 85 at \$4.75; to Noble 45 do av 65 at \$6; to Mich. B. Co. 12 sheep av 100 at \$3.25; to Sullivan P. Co. 9 lambs av 90 at \$6.40, 2 do av 95 at \$6.40; to Newton B. Co. 25 do av 85 at \$6.25; to Charlick & L. 57 feeders av 65 at \$5.75; to Fitzpatrick Bros. 49 sheep av 75 at \$4.75; to Mich. B. Co. 25 do av 110 at \$3.60; to Brown 42 lambs av 73 at \$6.15.

Bishop, B. & H. sold Hammond, S. & Co. 18 sheep av 77 at \$2.18, do av 90 at \$3.50, 19 do av 107 at \$3.50, 7 do av 100 at \$2.25, 3 do av 110 at \$2.5 do av 110 at \$3.75, 8 lambs av 70 at \$5.50; to Haise 20 do av 80 at \$5.75, 59 mixed av 70 at \$4.35; to Brown 194 feeders av 75 at \$6.25, 67 av 65 at \$6; to Sullivan P. Co. 3 lambs av 60 at \$5.50; to Mich. B. Co. 42 do av 55 at \$5.30, 30 do av 55 at \$5.25, 20 sheep av 80 at \$3.50; to Eschrich 79 lambs av 65 at \$5.50; to Newton B. Co. 59 do av 73 at \$6.25; to Friedman 30 do av 68 at \$5.50; to Mich. B. Co. 34 sheep av 120 at \$3.75, 6 do av 115 at \$3.50, 31 lambs av 65 at \$5.25; to Brown 63 do av 75 at \$6.25, 56 do av 55 at \$5.75; to Charlick & L. 100 do av 65 at \$6; to Fitzpatrick Bros. 40 sheep av 90 at \$3.50, 23 do av 110 at \$3.50, 23 do av 75 at \$3.75; to Reimel 115 lambs av 85 at \$6.35, 136 do av 70 at \$6.25; to Haise 8 do av 55 at \$5; to Fitzpatrick Bros. 21 lambs av 90 at \$6.65.

Bergin & W. sold Hammond, S. & Co. 6 sheep av 75 at \$2.18, do av 110 at \$3.50, 18 lambs av 75 at \$6.25.

Cheney & H. sold same 32 do av 82 at \$6.

Kalaher sold Fitzpatrick 8 sheep av 95 at \$3.15, do av 60 at \$4.68 lambs av 77 at \$6.

Duella sold same 22 sheep av 90 at \$3.25.

Johnson sold Young 12 sheep av 110 at \$3.37 lambs av 80 at \$5.75.

Adams sold Barlage 9 sheep av 105 at \$2.50, 24 lambs av 80 at \$6.10.

## Hogs.

Receipts, 4,675. Market steady at last week's prices.

Range of prices: Light to good outchters, \$7.50@7.65; pigs, \$7.15@7.25; light yorkers, \$7.35@7.50; stags, 1/2 off.

Spicer, M. & R. sold Parker, W. & Co. 63 av 190 at \$7.70, 52 av 185 at \$7.65, 115 av 170 at \$7.60, 94 av 165 at \$7.50, 29 av 150 at \$7.45.

Sundry shippers sold same 400 av 170 at \$7.60.

Spicer, M. & R. sold Sullivan P. Co. 75 av 155 at \$7.50.

Roe Com. Co. sold same 36 av 175 at \$7.65, 64 av 170 at \$7.60, 79 av 165 at \$7.50.

Bishop, B. & H. sold Hammond, S. & Co. 1,640 av 165 at \$7.60, 307 av 180 at \$7.65, 265 av 150 at \$7.50, 243 av 140 at \$7.40, 78 av 160 at \$7.45, 130 av 130 at \$7.30, 235 av 180 at \$7.55.

Mayer sold same 75 av 200 at \$7.75.

Market closed about 5c higher than last week.

## Friday's Market.

## Cattle.

October 22, 1909.

We quote: Dry-fed steers (quoted), \$5; steers and heifers, 1,000 to 1,200, \$4.50@4.65; steers and heifers, 800 to 1,000, \$4; steers and heifers that are fat, 500 to 700, \$3.25@3.50; choice fat cows, \$3.75@3.85; good fat cows, \$3.50; common cows, \$2.50@3; canners, \$1.75@2.15; choice heavy bulls, \$3.50@4; fair to good bologna bulls, \$3.25@3.40; stock bulls, \$2.75@3; choice feeding steers, 800 to 1,000, \$4@4.30; fair feeding steers, 800 to 1,000, \$3.50@3.75; choice stockers, 500 to 700, \$3.50@3.75; fair stockers, 500 to 700, \$3.25@3.50; stock heifers, \$2.50@3; milkers, large, young, medium age, \$4@6; common milkers, \$2.50@3.50.

## Sheep and Lambs.

The sheep and lamb trade was dull and while one extra good bunch brot \$6.50 the general market was 25c lower than on Thursday. Most of the receipts were hot by feeders and shipped back to the country. Prices: Best lambs, \$6@6.50; fair to good lambs, \$5.50@5.75; light to common lambs, \$4.50@5; fair to good sheep, \$3.50@4; culls and common, \$2@2.50, 70 at \$3.

## Hogs.

The hog market was active at Thursday's prices and the quality was the best seen here this season. Bishop was all alone, however, in the hog yards, having all the hogs on sale, about 1,600. Jerry Sullivan took all the pigs at \$7.20 a hundred and says prospects look good for them at present.



## GOMBAULT'S CAUSTIC BALSAM

A safe, speedy and positive cure for

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

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



Keep your horses working perfectly all the time. Don't let a Spavin, Curb, Splint, Ringbone or any lameness stop them. Cure it quickly and safely, without leaving a scar, blemish or white hairs, by using

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"I have used your Spavin Cure for over 25 years for treatment of horses for Sweeney, Spavins and general lameness. I believe that it has no equal. I have had a large experience with its use, and marvelous success, and most heartily recommend it as a general-purpose liniment. Respectfully, C. K. Edwards, Los Angeles, Cal."

We have thousands of other letters like this. Price \$1.00 a bottle; 6 for \$5.00. An excellent liniment for household use. Sold by all druggists. Ask them for free book, "Treatise on the Horse," or write to Dr. B. J. Kendall Co., Enosburg Falls, Vt.

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Settle in Virginia where climate is mild, where lands are naturally good and easily improved. Her average corn yield per acre equals that of any state in the union. Her fruit-growing unsurpassed, her dairying profitable. Only 6 to 24 hours to country's best markets. Send for Booklet "Virginia." Address Commissioner of Agriculture, Richmond, Virginia.

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Requires no engine-knowledge, little attention and less fuel than any other. Two gallons of gasoline will run our "1910-Model" Engine for 9 hours. And it cares for itself. Oil and gasoline are contained in one tank at the base of the engine. They mix automatically.

Constant, perfect lubrication is thus assured. No chance whatever for any trouble. Treat it like any other farm machinery. Nor is there any danger of freezing, for our engine is air-cooled. The fly wheel acts as a fan, preventing over-heating as effectively as water.

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Only three moving parts—piston, rod and shaft—show the simplicity of the Elbridge "Gem." No complicated mechanism, or troublesome oiling system. It is always ready to start, will run until stopped. Your boy can operate it satisfactorily.

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We have only 300 of our 1910-Model Elbridge "Gem" Engines left. Those sold are adding daily to the profits of their pleased owners, by their economical saving of time and labor.

Your order should be sent as while we're able to fill it. Remember you take no risk. If the Elbridge "Gem" doesn't please, send it back. We will refund your money.

Will gladly send more details if you want them but you'll have to write immediately. To delay means possible loss of a real money-making opportunity—the most practical you were ever offered. Better send your order today.

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## FARMS AND FARM LANDS FOR SALE OR EXCHANGE

I SELL FARMS IN OCEANA. The best county in the United States; fruit, grain and stock. Write for list. J. D. S. HANSON, Hart, Mich.

FOR SALE—80 acres choice unimproved land in Ogemaw Co. Other property. Nine months school, Sunday school, good neighbors. Harry O. Sheldon, Alger, Mich., R.F.D.1.

FARM—126 acres, 1/2 mile from station, good buildings, orchard, about 15 acres timber, about 40 pasture, balance gravelly loam. Long time. This is one of the best general purpose farms in the county. S. W. PIERSON, Linden, Michigan.

MICHIGAN FARMS, Fruit, Grain and Stock splendid climate, water, roads and schools, write for list o. 1. C. B. BENHAM, Hastings, Mich.

Truck and Dairy Farm, 100 acres on stone pike, 3 miles from Toledo with 200,000 people, 32 railroads, etc. etc., for sale on reasonable terms. A sure money maker. J. H. BELLOW, 1635 The Nicholas, Toledo, Ohio.

FOR SALE, FARM in Isabella County, 240 ACRES of good land, 80 acres cleared, 160 pasture and timber. Brook equipped with trout, good bearing orchard, well, windmill, 11 room house, barn 60 x 30 with basement, large silo, near school, near good market town, railroad siding and elevator. Write for particulars. Charles G. Quinn, Remus, Mich. R.3.

## CHOICE EATON CO. MICH. FARMS.

Owner having engaged in business outside the state offers for sale three as fine farms as can be had, at prices ranging from \$40 to \$80 an acre. Two one mile from city, one six miles. Good buildings, well fenced, and strong soil very productive. You should investigate these farms before buying. For prices, terms and description write or call on C. D. BARRY, 116 N. Oliver Street, Charlotte, Michigan.



Locate now on the new railroad. Runs through the richest farming and trucking country. Lands \$10.00 to \$25.00 per acre. Rich farms now at low prices. Produce two and three crops per year, abundant water, timber, excellent climate. Write for catalogue and information: B. E. RICE, AGENT, Industrial Department, Virginian Railway Co., Dept. E Norfolk, Virginia.

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in Virginia, North and South Carolina, Georgia, Alabama and Florida, write to WILBUR MCCOY, Agricultural and Immigration Agent, Atlantic Coast Line, - Jacksonville, Fla.

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

Daniel McCaffrey's Sons Co., Pittsburg Pa. Ref.—Washington Nat'l Bank. Duquesne Nat'l Bank.

## 3 Horse Power Air Cooled



Price, Complete, \$110. (F.O.B.) Without Truck, \$100.



## HOME AND YOUTH

THE EVIDENCE OF A CAMERA.

BY IRMA B. MATTHEWS.

It was a beautiful summer day, one of the few perfect ones. So that Ellen Dawson as she wandered along the shady road. I am not sure but what an observer might have found the girl as good to look upon as the landscape she was admiring so much, for her bonnet pushed back revealed a face sparkling with health and the joy of living.

"I shall get a fine view of that bit of road today," she remarked, either to herself or to the robin singing in the tree above her head, for there was no one else near to hear her.

She lifted a camera she carried in her hand and prepared to make a snap-shot of the spot. She stood in a position that was screened by some bushes, so that a person passing in the road would not have seen her unless looking for someone in that place.

The camera clicked, her hand dropped again to her side and she looked up. To her amazement a young man stood directly before her. He was a stranger in the neighborhood she felt sure, and she stood perfectly still hoping that he would not see her, for she saw he was not aware of her presence. He stood for a moment as tho in uncertainty, then made his way down the road at a swinging gait. In the brief time that he stood there Ellen observed that he was rather good-looking, and also that he seemed troubled.

She looked at her watch. "Goodness me!" she exclaimed, "It is half past two and I promised mother to be home at three to help entertain company this afternoon. I will have to hurry some. No more pictures this day," and she turned and started briskly in the direction from which she had sauntered a short time before.

"Late, mother?" she asked as she came into the comfortable sitting room, rosy from her walk.

"Not much," her mother smiled; "they have just come and your father is entertaining them while I ran out to put the last touches to the table."

"You go right back now mother, I will see to things."

"But they will want you to play and sing."

"I know; I will be in after a little," and she turned into the dining room.

Farmer Dawson's friends had said he was foolish when he sent his daughter away to college. It would spoil her and make her discontented with her country home, they declared, but for once they were mistaken. She had come back more lovable than ever and also more in love with her country home.

"No city for me, with their little box houses and scraps of yards," she would declare. "I want a place to live and breathe in and I intend to marry a farmer," which answer brot every young man in the country around to her feet in hopes of winning so fair a prize, but as yet the right one had not appeared.

In a short time Ellen entered the parlor, gowned in a fresh crisp lawn, ready to help entertain her mother's friends. The afternoon passed pleasantly and when the guests left they were loud in their praises of their hostess' lovely daughter.

"Never set her up a bit," declared one of the ladies; "she is just as sweet and unspoiled, for all she can make pictures with that box-looking thing and play the pianny, too."

The next day Mr. Dawson came into the house after talking some time with a neighbor at the roadside. "I am going over to old man Harter's, wife; something awful happened over there."

"What is it, father?" asked Ellen, looking up and seeing that her father was much excited.

"Old man is dead—murdered some time yesterday."

Mrs. Dawson screamed. Such a thing had never happened in this quiet rural community before.

"How? Who?" she gasped.

"Don't know a thing about it only what I have just told you. Henry just told me that much and that was all. He is going over and I am going with him," and he hurried out.

The women looked at each other and shuddered. The Harter place was about four miles from them but that is not far in the country and they knew the place well. An old rambling house, half falling down, stood close to the road and here old man Harter lived alone. He had

lived alone as long as anyone could remember, and if he ever had any folks none of the neighbors had known anything about them. He owned a great deal of land, but he went looking worse than a beggar and it had long been whispered that he was a miser.

But who could have murdered him. The women could talk of nothing else the whole afternoon. It was late when Mr. Dawson returned and they began to question him at once.

"The murder had been committed with an ax," he told them; "it was found near, covered with blood, and he had been hit two or three times; one blow had crushed the skull. It was evident from the appearance of the room that the old man had put up a stiff fight, for there was every sign of a severe struggle. He was not cold yet when found by a neighbor who had gone to see him about some young cattle he had to sell. The doctors decided he could not have been dead over half an hour. It is horrible."

"But have they no idea who did it?" asked Ellen.

"The officers think they have a clew. A young fellow got off the train at Fenton that morning and inquired the way to the Harter place. He went back to the city that evening and the agent says he seemed disturbed and walked up and down the platform restlessly until the train came. They are hunting for him. It seems, too, that Brown went by the place about noon and he heard people talking, and once (you know how close the house is to the road) he heard the old man scream: "You need not tell me! It is my money that you want and you shall not have a cent of it."

This was practically all that was known but they heard two days afterward that the man had been found and arrested in the city, that he had proved to be old man Harter's great nephew and, as far as could be learned, his only heir.

It was a nine days' wonder in the place. The young man was examined and bound over to the court for trial. Meanwhile he was confined in the county jail. The motive for the crime was very apparent. Besides large holdings in land, the old man was supposed to have much money. This man, his heir, was only a clerk on a not very big salary. The evidence was conclusive, so at least that most of the people who heard about the matter. In the whole country there seemed not even one whose heart was moved with pity as they thought of the man waiting while the make a certainty out of an uncertainty. escape for the prisoner. The defense was

When the time came the court room was crowded with people eager to hear the evidence and see what the prisoner would have to say. Among those present was Mr. Dawson. The evidence was given, and tighter and tighter it drew the net until there seemed no possible escape for the prisoner. he defense was mainly bent on showing the hitherto good character of the young man but his previous record did not avail much against the evidence.

That he had gone to see his uncle that fatal day he acknowledged. He said he had known but little of him but that he had been very good to his mother until she had married against his wishes; then he had refused to ever see her again. When his mother was dying she asked her son to take her last message to him. It was to fulfill this request that he visited his uncle that fatal day.

Being asked if they had quarreled the prisoner replied that they had not; that his uncle got very angry and accused him of coming to see him because he had hopes of getting his money, but that he should not have it. He said he saw he could not make friends with him and left soon afterward.

Asked at what time he left, he said it must have been one o'clock. The doctors' evidence showed that the man must have been killed at two-thirty, or near that time, so that, could he have convinced the jury that he told the truth, it would have cleared him. But alas, there was nothing but his word to support this evidence.

The lawyer asked him sharply where he was from one o'clock until he arrived at the station, and he answered that he had not often a day in the country and that he had spent it loitering along the beautiful country roads.

No questioning could make him vary the story in the least, but when they were thru with him he saw, with a sickening throb of the heart, that no one believed him. His gaze, as it wandered from face to face, saw only sternness.

But there was one. Mr. Dawson watched the young man and decided that he was telling the truth; but he also saw that if it was so it would avail him nothing.

He said as much to his family that night.

"I tell you there is something about the lad's face that haunts me. His eyes have the look of an animal at bay. I wish I could forget about it."

His wife tried to cheer him by talking of something else, but Ellen saw he did not hear much of what she said.

The next day was Sunday and Ellen noticed that her father was still uneasy. He paced back and forth from sitting room to dining room. Once he stopped before a table and mechanically began looking over some photographs in a basket. Suddenly he started and a look of astonishment crossed his face. The next minute he was standing before Ellen holding a picture in his hand.

"Where did you get this?" he demanded.

"I took it. Why, father, don't you recognize that bit of road?"

"When did you take it, do you remember?"

"Very well, indeed," she answered, smiling at him and wondering at his evident excitement. "I took it the day Mrs. Williams and Mrs. Holmes were here; it was—why, it was the second of August."

"At what time?" her father leaned toward her earnestly; "have you the least idea, daughter, at what hour you took it?"

"Why, yes; I looked at my watch and it was exactly half past two, and I remembered that I had promised mother to be home at three so I had to hurry."

"Thank God!" breathed the father.

"Father, what is the meaning of this?" cried she, catching something of his excitement.

"It means that the gift of life lies in your hands, my daughter. That is the picture of the young man, Russel Hathaway, now being tried for his life for the murder of old man Harter."

For a moment Ellen gazed at her father in amazement. "A murderer," she cried; "Oh no, father, oh no!"

"No, your evidence will prove that he is not. Don't you understand? We must be in the city when the court opens. We can do it by taking the early train. We will be in time, but I cannot understand why he did not tell about meeting you."

"I do, father; he did not meet me. He did not even see me."

"Then how—" her father began in bewilderment, but she interrupted him to tell how she had stood when she took the picture; of how she had kept silent until he was out of sight, and how she did not know that she had taken his picture until she came to develop the film.

"What a horrible thing," said her father with a shudder. "Think of that poor lad in jail all this time, charged with such a crime, when all the time we had evidence that would clear him."

Ellen was pale. "Think, too, father, if we had not found it until it was too late!"

"Ellen," her mother interrupted, "that was in higher hands than yours."

Russel Hathaway was having his last interview with his lawyer. "It is no use," he said wearily; "I can think of nothing more that would be likely to throw any light on the matter. Everyone believes me guilty. I have even thought, lifting his haggard face to look straight at the other, "I have even thought that you believed it."

"And are you not?" asked the lawyer in a peculiar voice.

"No, God knows that I am not," he cried bitterly; "that is, if there is a God. I have been tempted to doubt it sometimes."

"Don't say that," answered the lawyer gravely. "Never say that, for I may as well tell you that only He can save you now. I have done all that I could do."

"Evidently He cannot either, or will not, but you are right, I will not doubt my Creator. I will strive for grace to say, 'Thou He slay me, yet will I trust Him,' looking up with a wan smile. "But I hope the thing will end today. Certainty cannot be worse than this suspense."

The lawyer felt the truth of this as he gazed at the thin face. He did not look much like the careless youth that had swung along the country road in August. Yes, the end would no doubt come that day, and he turned away, for he had nothing more to offer.

A short time afterward the prisoner was led into the court room. There were many who noticed the prisoner's hopeless look that morning and they whispered one to another: "He is giving up." "He is losing his grip."

The lawyer was arranging his papers and had just risen to sum up the case when an officer pushed his way toward him and thrust a note into his hand. He opened it and read in surprise: "Call

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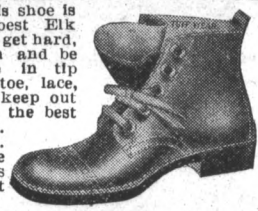
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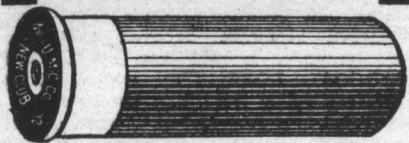
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Ellen Dawson to the stand; she has evidence that will clear the prisoner."

"If it pleases your honor," he began, as the nothing had happened, "I have one more witness that I wish sworn. Will Miss Ellen Dawson take the stand?" At the words a young girl in the back of the room made her way toward the front, the crowd standing back to allow her to pass.

Every eye in the room was fixed upon her but she saw only the appealing brown ones of the prisoner as he looked at her wondering what she could know about the matter and how his lawyer had found a witness he had certainly known nothing of a short time before.

After the usual questions as to her residence, etc., the lawyer asked: "Are you acquainted with the prisoner at the bar?"

"No." Her voice was low but perfectly distinct.

The lawyer, himself in the dark and having to feel his way, asked: "Did you ever see him before today?"

"Yes, once."

"And when was that?"

"The second day of August."

A pin dropped in that room could have been heard now, so intense was the stillness. Every ear was strained to catch the answers of the witness.

"Why are you so sure about the date?" "We had company, and it was the day Mr. Harter was murdered."

"Will you explain to the court where you saw the prisoner that day?"

"In the road between my father's farm and Fenton."

"Are you sure it was him; you say you never saw him but the once?"

"I am sure of it and have proof."

"How is that, what proof?"

"I took his picture."

The lawyer was waking up now. Here was surely some mystery. Why had the prisoner not told him of meeting some pretty girl who took his picture.

"Can you produce the picture?"

"I can," and she handed him a square card that she held in her hand.

He gave an exclamation. It was certainly the prisoner and a very good likeness, too. There could be no mistaking it. After everyone had examined the picture the questioning went on: "How far is your home from the Harter place, Miss Dawson?"

"About four miles, I believe."

"And at what time that day did you take this picture, do you think?"

A ripple of excitement swept thru the crowd in the moment that preceded the answer to this question. All knew that on the answer hung the prisoner's fate. The prisoner himself was leaning slightly forward regarding the witness, with his whole soul in his eyes. What would the answer be?

"It was just half past two."

A murmur ran around the room and the prisoner, with a low "Thank God!" nearly fainted.

"Why are you so sure?"

"I looked at my watch just after he had passed, and besides it could be easily verified by the way the trees in the picture cast the shadows. I had waited to get just that effect."

"Why have you withheld such important testimony so long?"

"I did not know that the young man in the picture was the one being tried for murder until father happened to see the picture yesterday and he recognized it."

"How do you account for the fact that the prisoner did not tell of meeting you and thus prove an alibi himself?"

"He did not meet me. I was screened by the bushes behind which I had taken my station in order to get the right view and he could not see me from where he was. I took the picture thru a small opening in the bushes."

There were more questions but none of importance, and then the witness was allowed to step down. The lawyers agreed to make no pleas. What was the use? The girl and the sun had cleared the prisoner. It was impossible for the man to be in that place at two-thirty and have committed a murder at the same time four miles away. In a short time Russel Hathaway was a free man. He hastened to where Ellen stood with her father.

"I want to thank you," he said brokenly; "and I feel I can but poorly express myself. You have saved not only my life but what I value more, my good name."

"None of that, lad," said Mr. Dawson kindly; "Ellen deserves no thanks."

"No, it is father," the girl interrupted; "he recognized the picture and if he had not been so restless yesterday, walking the house while thinking about your being punished for a crime that he insisted he

did not believe you had committed, the picture might never have come to light, that is, until it was too late," and she shuddered and grew pale.

"Yes, I did not believe you did it. You did not have the look of a guilty man," added Mr. Dawson.

This was indeed sweet news to Russel—that even one man thought him innocent with all that weight of evidence against him.

"You will be looking after your property out our way," continued Mr. Dawson; "drop in and see us."

He availed himself of the invitation and after awhile it began to be remarked around the neighborhood that it seemed to take a great deal of young Hathaway's time to thank Ellen Dawson for her share in saving his life and restoring his good name. He finally decided that it would take his lifetime, and she must have agreed.

He sold the Harter place, for he declared he did not wish a place with such memories, and got a place not far from the Dawson farm and is at present engaged in building a fine house thereon. Ellen is the one consulted constantly about the details.

I suppose the story would hardly be finished without some mention of the mystery surrounding the death of Mr. Harter. It remained a mystery for months; then a man sentenced to death in a distant state made a clean breast of the affair. He was tramping thru the country and had just entered the woodshed back of the Harter house, intending to ask for something to eat, when he heard the angry words of the old man directed to his nephew. Shortly afterward the old man got a bag of gold and began to gloat over it, muttering all the time that they should not have his money. He attacked the old man with an ax he found in the woodshed and managed to get away without being seen. He caught a night train and was miles away before the murderer was sought.

All very simple, to be sure, but an innocent man would have suffered the penalty had it not been for the evidence given by a camera.

### CHEERFULNESS.

BY EUGENE C. DOLSON.

One heart inclined to harmless mirth,  
To fellowship and merriment  
For real good is often worth  
A dozen prone to discontent.

### SMILE PROVOKERS.

"You are wasting your time, old man," said Fred to George. "You are courting the wrong girl."

"No; she's the right girl. I'm afraid the trouble is I'm the wrong man."

"Surely you picked up something in the way of an art treasure while you were abroad," said the collector.

"I don't know," answered Mr. Cumrox; "when my new son-in-law is all dressed up you might call him a work of art. But I don't believe he is any treasure."

A colored man was brot before a police judge charged with stealing chickens. He pleaded guilty and received the sentence, when the judge asked how it was he managed to lift those chickens right under the window of the owner's house when there was a dog loose in the yard. "Hit wouldn't be no use, judge," said the man, "to try to splain dis thing to yo-all. Ef you was to try it you like as not would get yer hide full of shot an' get no chickens, nuther. Ef you want to engage in any rascality, judge, yo' better stick to de bench, whar yo' am familiar."

Lucille, a carefully brot up little girl of five years, returned from her first party in glee.

"I was a good girl, mamma," she announced, "and talked nice all the time."

"Did you remember to say something pleasant to Mrs. Applegate just before leaving?" her mother asked.

"Oh, yes, I did," was the enthusiastic reply. "I smiled and said, 'I enjoyed myself very much. Mrs. Applegate. I had lots more to eat than I spected.'"

"Me daughter, Mary Ann," said the newly rich Mrs. Cassidy, "wants to larn to play some music instrument. I wonder w'at wan would come aliest to her?"

"Well, now," replied the jealous and caustic Mrs. Casey, "if ye could only git somethin' that built like a washboard 't would be jest the thing."

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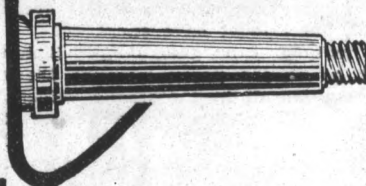
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## OF INTEREST TO WOMEN

### Does Unselfishness Breed Selfishness?

IN that quaint Kentucky story, "Old-field," the village doctor says to Miss Judge, "Unselfishness like yours does harm; it breeds selfishness in others." In almost every home there is some sweet tempered, unselfish one who takes all the burdens, attends to every other one's little wants and uncomplainingly suffers all the self denials of the home. Sometimes it is father, more likely mother, an older sister, or patient grandmother. They are continually doing the little things that "somebody ought to" do. It is done to keep peace, to have the household move serenely and to simply administer to every one thru pure, generous love for the family. But is it right? Is it not working more ruin than good? Does not the younger brother or sister become selfish, careless and lazy? "Oh, sister will do it," they think, "I don't need to bother." Or, "mother isn't going out as much as I. She can get along without a new dress this fall, but I must have one."

Yes, mother can get along. Sister needn't go to the party, because there isn't room for all in the family vehicle. And sister cheerfully says she doesn't care to go, and forces down the lump of disappointment that rises in her throat.

Are you heedlessly causing this loved one to continually be the martyr and willing worker? Why not divide up the honors, pass them around, as it were. Give them a little pleasant surprise by insisting that they draw the sugar plum,

for once. All too soon we realize the sacrificing life the loved one has led for us, when they have gone from the family circle.

And you, the unselfish one, a word to you. Are you really doing the best thing for your loved ones by this generous life you yield to them? I doubt it. When that indulged brother grows to be a man and takes unto himself a wife, are you not storing up trouble for her? Will he not expect the same leniency he has enjoyed at home? Will not that self-indulged maiden grow to be a disagreeable untoward woman. If you are a fond mother humoring every whim and desire of your children and cheerfully working thru the long day for them, refraining from seeking their aid, because they must have their play and joys. What about the time when they have passed from your careful shelter, will it not be rather a rude awakening? Is it not better to train them for the time when they must stand alone? When they brush up against the world and take its knocks, unaided by your protecting care.

Then do not mistake intended kindness for what may prove their undoing. Do your share of the little things in life that makes it worth living for those about you. Be reasonably self-sacrificing and willing to step aside for others, but do not do it all the time, give the other members of the family a chance to prove their love for you.

ELISABETH.

#### COMPLACENCY.

I think I could turn and live with animals, they are so placid and self-contained.

I stand and look at them long and long.

They do not sweat and whine about their condition.

They do not lie awake in the dark and weep for their sins.

Not one is dissatisfied, not one is demented with the mania of owning things.

Not one kneels to another, nor to his kind that lived thousands of years ago.

Not one is respectable or unhappy over the whole earth.

—Walt Whitman.

#### FRESH AIR IN THE HOME.

BY E. E. R.

It is easy enough to secure abundance of fresh air in summer, but when winter sets in it becomes in many homes an entirely different matter. Then we shut ourselves up and try in every possible way to prevent this same air from gaining an entrance.

The fact that the average house is not equipped with an adequate heating plant is partially responsible for this condition. Where stoves are depended on to furnish the heat there are usually some rooms which are cold and that serves to keep the inmates near the fire. Were the whole house evenly warmed it would not be a difficult matter to invite the purifying breezes to enter without chilling its occupants. With a frigid temperature outside it requires a heroic determination to do things to enable one to throw open the windows even for a few minutes, and more or less expostulation may always be looked for by those who do not see the necessity of "warming all out doors," as some express it.

It is true, however, that the more we become enlightened upon this subject the more we come to realize the importance of pure fresh air at all seasons. We may safely say that half the ailments which assail the average family during winter are owing, not so much to the weather, as to the fact that the air in the house is breathed over and over until it becomes an actual menace to health and entirely responsible for the colds and throat troubles which are so common at this time. Many people are insisting upon open windows in their sleeping rooms every night in the year. From being the victims of influenza and colds all winter, some of these persons have actually become immune to such ailments by this simple means alone. They attribute their condition entirely to the fresh air which they breathe night after night.

For those who hesitate about drafts and exposure in sleeping with open windows, be it known that a person inured to this method of sleeping never takes a

cold, even when the wind blows directly upon the face. To begin gradually, let a narrow board as long as the window's width be placed beneath the lower sash. This provides for the entrance of air between the two sashes while a direct current is avoided. Some sort of handle in the middle of the board, such as a small block of wood nailed to one side, makes it easier to place it in position. Some provide a cloth covered screen for the open window, which admits air yet keeps out much of the cold and dampness of the atmosphere, on the same plan of the cloth front in the modern poultry house.

When we consider that of all cases of tuberculosis, by far the larger proportion are undoubtedly caused from breathing impure air, we must recognize the supreme importance of this subject.

Pile on the blankets, as many as are required, but open the window of the sleeping room every night.

#### CRANBERRIES DELICIOUSLY PREPARED.

The cranberry is one of the most healthful of our winter fruits, being rich in valuable food, salts and acids, and is claimed to have curative properties. Although it is chiefly associated with the holiday game and poultry, yet it is a fruit that should be found often on our tables. Not only is it an appetizing sauce to eat with game, fish, fowl and fresh meat, but there can be made with it delicious puddings, shortcakes, tarts, jellies and such like. Cranberries should always be cooked in an earthenware vessel, or in a granite or porcelain kettle, and never in tin. Always wash the berries carefully, picking out all stems and all defective fruit. Here are some excellent ways in which the cranberry can be prepared:

**Whipped Cranberry Jelly.**—Make a pint of plain cranberry jelly and set aside to cool. An hour or two before it is needed whip up with a wire egg beater; then fold into it the stiffly beaten whites of two eggs. Heap up in glasses and serve.

**Cranberry Bavarian Cream.**—Whip two cups of good cream to a stiff froth, then fold in one cup of sugar. Soak in one cup of cold water one tablespoon of gelatine; place over hot water until fully dissolved. Then add to a cup of strained and sweetened cranberry juice. Just as the gelatine begins to perceptibly thicken fold in the whipped cream. Mould and chill. The result is smooth, velvety pudding that melts in one's mouth.

**Cranberry Pudding.**—Mix together one and a half cups of sour milk, three-fourths cup of molasses, and one teaspoon each of salt and soda. Dissolve the soda in a little water. Add three cups of flour; when well-mixed add a pint of raw cranberries. Pour into a buttered baking-dish

or mold and steam about an hour. Serve with a good sauce.

**Cranberry Shortcake.**—Stew together one and one-half quarts of cranberries and one pound of sugar with one pint of water; cook until well done, then put thru a sieve. Return the juice to the stove and boil until it is ready to jelly, and set aside until it has partially jellied. Make a good shortcake dough as for a strawberry shortcake. When baked split the shortcake, spread with the jellied cranberries, and serve with good rich cream. The shortcake can be simply spread with the cooked fruit, well sweetened, and some prefer it to the jelly.

**Cranberry Sherbet.**—Stew the cranberries and strain. To a quart of the juice add the juice of a half dozen oranges and two pounds of granulated sugar, pour into an ice cream freezer and freeze. When it is of a mushy consistency stir into the cranberries the whites of three eggs, beaten stiffly. When the freezing is completed let cure awhile. Serve in sherbet glasses.

**Cranberry Puffs.**—Sift together two cups of flour and four teaspoons of baking powder, and one-half teaspoon of salt. Rub into this one-fourth cup of butter, and two well-beaten eggs, and one cup of good milk, and stir into the flour with one pint of cranberries. Fill buttered cups about one-half full of this mixture and steam one hour. Serve with a good sauce.—Pansy Viner.

#### A FEW POINTERS FROM THOSE INTERESTED IN THE QUESTION.

I have been very much interested in those letters on preserving husbands, and would like to say a word myself. Mrs. M. C. S. and Mrs. C. U. C., you must not think all men are like yours. I, too, believe that if a man loves his wife and family as he should, he will need no preserving to make him treat them right. Perhaps C. S. has a husband like mine. I can use all the sugar I choose and it won't spoil him a bit. I also am a farmer's wife. Have been married for over eleven years and he treats me just as well as he did before I was his wife. We have four small children, and I have always done all my own work, and worked in the garden besides, and sometimes I help milk the cows, and don't consider myself a drudge either. And as for a vacation, husband and I usually take a short one together every summer.

If my husband was a writer he would write a piece on preserving a wife. I think he must know how, for I have been told that I look as young as I did when I was married.—An Old Man's Darling.

I have been reading the letters in the Michigan Farmer on "Preserving Husbands." There seems to be quite a little excitement created over the subject. When people are married they should settle down and take everything into consideration and make allowances for shortcomings. The husband should do his part in keeping things neat and tidy. Not bring all the dirt on his shoes in the house, but clean it off out doors. This would save a lot of the hard feelings between husband and wife. The wife should be as economical as possible in all parts of the house. She should not growl about something as soon as the husband enters the door. This will disgust a man and make him want to be some place else rather than at home. The husband should not growl about the grocery bills, even if they do seem a little high. The average housewife is not going to buy a lot of unnecessary articles.

As "Mrs. M. C. S." says, "there should be only one pocket book in the house." My husband and I have access to "our" pocket book and one never asks the other, "What do you want money for now?" That is not necessary. It belongs to one as much as the other.—Mrs. F. M. B.

#### "MRS. C. S." REPLIES TO SOME CHARGES.

I had no idea that I would stir up a hornet's nest when I wrote the article on preserving a husband. All the same, I have enjoyed it immensely for I was very glad to hear from you sisters. Yes, Mrs. C. U. C., I am a married woman, and the mother of two grown-up children. I have carefully read over the article in question, and cannot find anything I wish to retract.

You are mistaken, I did not say that husband should have no bad spots, but I did say that no man is perfect, that even the sun has spots upon it, so how can we expect a mortal to be perfect, either man or woman. No human being can reach

## Making A Good Impression

### A Person With Bad Breath Invariably Impresses People Unfavorably.

Every one desires to make a good impression with other people with whom they come in contact, whether in a business or social way.

No matter how well dressed a person may be, or how well educated or accomplished, if he or she has an offensive breath, every other consideration and good quality is likely to be overlooked, and the impression made is likely to be an unfavorable one.

The employer in selecting an employee is almost certain to reject the applicant whose breath is offensive, even though he may seem a good acquisition in every other way.

No merchant cares to employ a clerk whose breath is foul, to wait on his customers; he would probably drive trade away. Neither does an official desire to have such a person employed in his office.

Many a person making an application for a position has been rejected by a prospective employer on account of this undesirable possession, which proves so disagreeable to other persons, and often the applicant hasn't the slightest idea as to why he was "turned down," since he seemed to fill the requirements of the position in all particulars.

Every one who is so unfortunate to possess bad breath, whether caused by disordered stomach, decayed teeth or nasal catarrh, should use STUART'S CHARCOAL LOZENGES, which afford immediate relief from this trouble.

Charcoal is a powerful absorbent of foul gases, and quickly oxidizes and purifies bad breath. The charcoal from which these lozenges are made is the best that money can buy, and possess a higher power of absorption not present in other and minor brands.

Bad breath from any cause cannot exist for a moment when they are used, and all persons who are subject to foul and offensive breath should rid themselves of what amounts to a positive nuisance by using these powerful absorbing lozenges.

Use them freely before going in company, or to church, or to the theater, in fact, to any place where you will be brought into close contact with other people.

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perfection, even with the best of intentions. We take our husbands for better or for worse and if it happens to be for the worse, try to make the best of a bad bargain. We should do our part toward making life worth living.

Now, sisters, honor bright, can you recall no one instance in your life when a kind word would have averted a breeze? You know in a heated argument one word brings on another.

Because I say a husband is worth preserving is no sign that I think that a wife is not. The preserving process should be carried on on both sides and constant nagging is no way to preserve the happiness of our husband, our children and our home. We must not expect more consideration than we are willing to accord others. I always thot the Golden Rule a very good rule to go by.

As to the soft soap process that Mrs. M. C. S. speaks of, I never tried it on. I don't know how it would work. Good, hard common sense, in union with a cheerful, sunny disposition, suits me much better. I agree with her, tho, in reference to the pocket book. I do think that the wife has an equal right to the contents. Why not? She helps to earn it, and are they not partners?

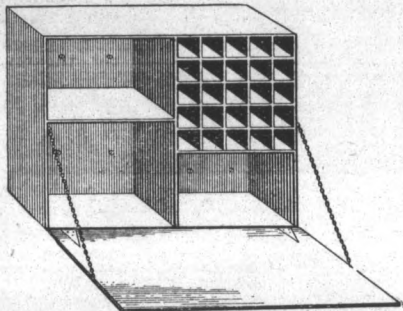
Now, brothers, it is your turn next, and we would all like to hear from you.—Mrs. C. S., Berlin.

#### HOME-MADE BOOKCASE AND WRITING DESK.

BY ALICE M. GRAYDON.

This combination writing desk and book-case is plain, neat and attractive, and is quite useful and ornamental. Secure a deal box from the grocery. Take a one-half inch board, the required height of the box, and fit in for a partition thru the center, then another board lengthwise for the book shelf. Take the rack from a box having contained glass fruit jars, and fit in the upper right hand corner of the box, for the required pigeon-holes, leaving the lower part for stationery and other articles. Fasten the door on the side of the box with hinges and attach a chain to each side. Screw to the wall.

Be sure and get it the required height, when open, as the door serves for a writing table. Pad the inside of the door with one sheet of wadding and cover with resida green, or terra cotta red outing cloth. If more expensive material



is desired, purchase one-half yard of dark green felting cloth. Use brass headed tacks at intervals to fasten it on with, stretch as smooth and tight as possible. Paint the whole, inside and out, with white enamel paint and line the outside with a beveled rule, using either gilt or brown paint. Cherry, oak or walnut stain can be used, instead of white, according to the furnishings of the room. The lock is a common desk catch or lock which holds the door in place when closed.

#### USEFUL FALL HINTS.

If the stove is cracked, a good cement for it is made as follows: Wood ashes and salt in equal proportions reduced to a paste with cold water and fitted in the cracks when the stove is cool. It will soon harden.

In the fall when cleaning house, I always apply a thin coat of varnish to straw matting, which makes it more durable and adds to its beauty.

Wet shoes dried and then rubbed with a cloth wet in kerosene oil, will be soft as when new, and will take blacking, but not dirt, as shoes rubbed with vaseline will do.

An occasional feed of hard boiled eggs made fine and mixed with cracker crumbs, is good for canary birds. Feed a little at a time.

Egg balls are nice for soup. Boil three eggs, put into cold water, mash yolks with yolk of one raw egg, and one teaspoon of flour, pepper, salt and parsley, make into balls and boil two minutes.

The easiest and best way to prepare a pumpkin for pies is, after washing the outside, set it in a pan in the oven and bake it for about an hour. When done

cut a hole in the stem end and remove the seeds. The rind will easily peel off. You will find it much richer and the flavor better, than if it were stewed.

A chimney may be kept clean and safe by throwing a piece of zinc into the furnace, or range, once a month.

To clean Russia iron, mix the blacking with kerosene and it will look nearly as well as new.—M. A. P.

#### SOME VALUABLE HOUSEHOLD CLEANSERS.

BY PANSY VIOLA VINER.

##### Sal-Soda.

Is the cheapest form of alkali that we can obtain, since it is now made out of common salt, chloride of sodium, which is abundant. Sal-soda when used to excess, contains injurious properties on account of its caustic elements. If used for clothing, the articles should be well rinsed before being blued. It is especially desirable to use when clothing have become a bad color, or stains have not had the proper attention and become set. Dissolve a pound of the soda in a quart of boiling water, and use about one tablespoon to each gallon of water in the boiler.

##### Soap Bark

Is one of the best cleansers for all dark wool and silk goods; it is used entirely by professional cleansers for this purpose. "Soap bark" is a vegetable product, the bark of the soapberry tree of the West Indies. The fruit of this tree is also used for the same purpose. The virtue of both the bark and the fruit is owing to the quality they possess of forming an emulsion with oily substances; this quality is due to the peculiar vegetable substance which they contain, called saponin. Soap bark will remove all grease from the goods, and also seems to give new body to the material; it will restore dingy, rusty black to its original color. Put two tablespoons of the bark, which can be obtained at a drug store, in two quarts of water, and boil down to about one quart. Add this to enough warm water to cover the goods, and wash them thoroly in this suds. Soiled ribbons can be nicely cleaned by washing in a strong suds made of this bark. Draw the ribbon thru the hands again and again but do not rub or wring, but press out the water with the hands. Rinse in at least two waters, and wrap around a bottle or glass jar and let remain until they are perfectly dry.

##### Coal Oil

or kerosene is also a great labor lighter. It will prove valuable in the washing of clothes if used right, but we find many who do not recognize the necessity of having the soap and oil thoroly emulsified before adding the clothes. This must be done, if it proves a success. Use two or three tablespoons to a boiler full of clothes, and at least a half cake of god laundry soap; then be sure to rinse the clothes well. Do not boil too long while in the boiler as that only boils the dirt into the clothes again. Kerosene is excellent to remove blood stains from clothes. Saturate well with the oil and let remain awhile before washing; grass stains and paint, especially if fresh, can be removed by the use of it. We have found it excellent to remove the dirt from the rubber rolls of wringers. Saturate a cloth well with the oil and then rub until the dirt disappears. Nothing better can be used to take the spots and dirt off painted woodwork and furniture of all kinds. Use a flannel cloth when applying it, then it can be gone over with a little borax water and dried off. We find nothing better with which to clean the sink than coal oil mixed with some good washing powder or ammonia, and as we have said before, if used in connection with ammonia it makes one of the best window cleansers. It is also good to remove spots in a general way, from woolen fabrics. It should be applied plentifully with a cloth and rubbed well, then hung out in the air until the kerosene has evaporated.

##### Turpentine

Can also be used for cleaning purposes to advantage. There is nothing better to whiten up clothes than turpentine. The tablespoonful can be added to the boiler and thoroly emulsified with the soap before adding the clothes. A little turpentine added to the starch water will make the clothes iron more easily, and will also help to whiten the clothes. Turpentine is excellent to use in taking out grease spots in woolen goods, and if combined with ammonia will seldom fail to take out paint spots, even if it has dried. For rosin, which one may get on one's clothes from pine, it is about the only thing that will remove it.

(Continued Next Week.)



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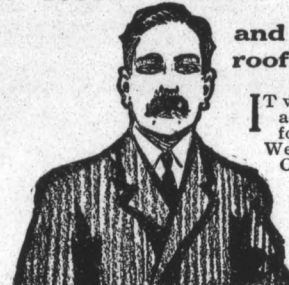
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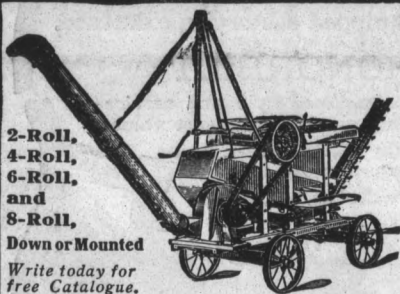
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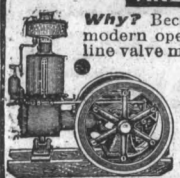
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And just think of the pleasure of hearing the Victor on rainy days! Put on records by Pryor's Band or listen to jovial songs, and you'll be glad the rain has kept you indoors.

And what about the harvest of pleasure you can give your friends!

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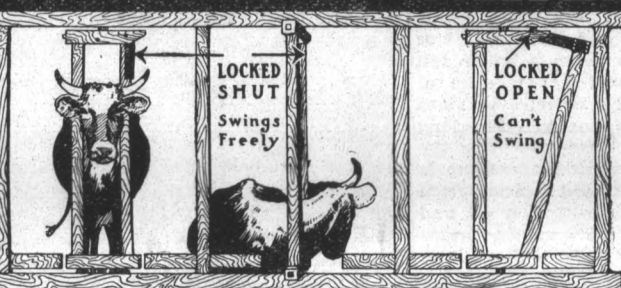
Maybe you prefer to buy yours that way. If you do there's a Victor dealer near you who will sell you any Victor you want to buy, and let you pay for it a part at a time. You'll hardly miss the money, and you'll be having all the great Victor pleasure in the meantime.

Write to us, and we'll tell you who sells the Victor near you. Then you can go to him, hear the Victor and the records before you buy, and in that way get just what you want. How much more sensible than to send your money away off to strangers!

Be sure to cut out this coupon and send for the handsome free Victor catalogues. They describe each style Victor, give a complete list of all the 3000 Victor Records, and show pictures of the famous singers and musicians who make Victor Records. Send this coupon to-night.

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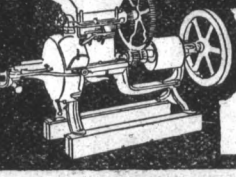
Stays where you put it—and easily "put" without taking off your gloves or mittens. Only smooth, polished hardwood touches the animal—no metal, no splinters—yet the steel latch, the blind bolts and the solid construction make it the **STRONGEST, SAFEST and MOST DURABLE** Stanchion at any price. The most convenient fastening for you—the most comfortable for your cows. Keeps your stable clean, saves feed, saves your time and means **SOLID SATISFACTION** all year round—summer and winter. Money back if you say so.

WRITE TODAY for catalog and factory price to you.

**WILDER STRONG IMPLEMENT CO.**

Box 13, Monroe Mich.

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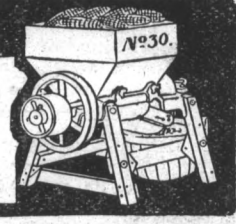
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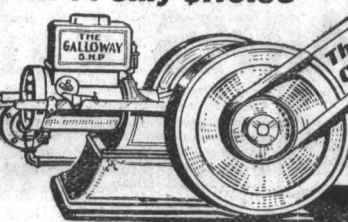


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