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FARM NOTES.

Planning for Next Year.

After the fall work is closed up and the busy farmer can take a little respite from the strenuous toil of the summer season, he can profitably turn his attention to making plans for the coming year. Planning of this kind is generally delayed too long by the average farmer, partly because there are some months before active work must be commenced in the farm campaign, and partly because we get out of the habit of planning so far ahead during the season when the work is pressing and the problems of the present and immediate future must have our undivided attention. But it is not too early to begin planning on next year's campaign as soon as the active work for this season is completed. Most of us do not do enough thinking about the future management of our farms, and lay out our plans for a single season at its commencement, and too generally with an idea single to our present needs, rather than with a view to the future as well as the present production of our farms. As a natural consequence a regular rotation of crops is practiced on altogether too few farms. If the clover seeding fails, as it has failed on many farms the past season owing to the unusual drought, the field is cropped again and the old meadows are cut for another year while the fields on which the seeding was lost are further depleted of their available fertility and humus, making it much more difficult to get a stand of clover with any degree of certainty in future years. Then the area planted to cash crops is more likely to correspond with our needs in the way of a cash income, than to be well balanced in proportion to the size and condition of our farms, and some farmers even neglect to sow any clover seed when seed is scarce and high. Then there is too little thought and study given to the requirements of different crops, and their fitness to succeed each other in the crop rotation, and from a combination of these causes and others which might be cited, the fertility of the average farm is being drawn upon more heavily each year, instead of being conserved and increased as it ought to be.

If the reader should be one of the many farmers who has been conducting his business in a haphazard manner, or without any well defined plan which takes into account the future as well as the present production of his farm, it is time that he paused to think about the matter, and to study and plan for the future so as to have his farm increasing in fertility and value instead of getting poorer. Nor is this such a simple matter that it can be hastily planned for, and the details decided on. It is a complex problem, which is worthy of the most careful thought and study, and the sooner we get down to business along this line the sooner we will be cited as examples of success in our communities, and feel the independence and satisfaction which comes to successful men, whether in a small or a large way, and whether in agriculture or in other lines of

business. As a basis for a start for success along this line, we should first determine what crops to grow. These should be such as to afford ample feed for the live stock maintained and to provide for a cash income as well. But the cash crops should not be too extensive in area. It is far better to plan on increasing the revenue from them by growing better crops on a small area, by better

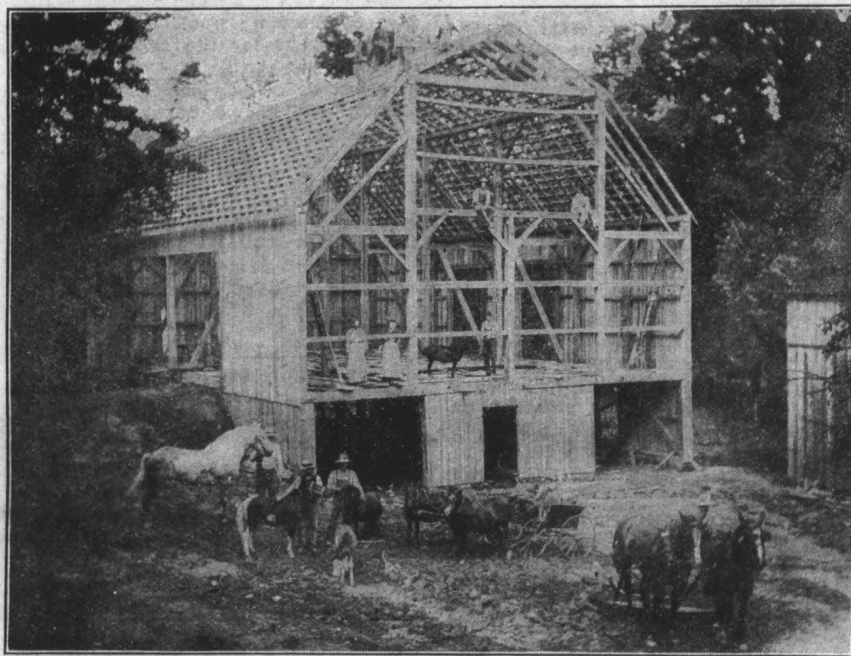
leaves to be best for the farm. In such cases, less stock better fed and cared for, and a smaller area of cash crops grown by better methods on better prepared and better fertilized ground will be a start in the right direction, and it will be a surprise to the average farmer that his net income will be increased and that his farm will grow better at the same time. The more we deplete the fertility of our

was lost on some of the fields that need clover, let us prepare a good seed bed and sow clover without a nurse crop, if necessary to get a stand, and begin anew to build up and conserve the fertility of our land by adopting a judicious crop rotation in which clover or some other legume will come sufficiently often to supply the land with needed humus and nitrogen. Then let us make as much stable manure as practicable and apply it to the land with as little loss as possible, and supplement it if necessary with the needed mineral elements of fertility in the form of commercial fertilizers, and by employing the best cultural methods and doing the work of preparing for, planting and caring for our crops at the proper time and in the proper way secure maximum yields on the area which we ought to break up for spring crops. It will require careful planning as well as efficient execution to bring about the desired results along this line, but it will pay out, and the farmer who begins now to plan and work to this end for next season's campaign will be more than pleased with the results which will crown his efforts.

What Makes the Wheat Yellow?

I would like to know what makes wheat turn yellow. I have 20 acres of wheat that turned yellow on the bottom leaves, and the center is still green. Would it be advisable to leave it or plow it over for oats? This wheat was sown on the first and second of September.

Bay Co. W. J. D.
From the time when this wheat was sown and the description given of its appearance it would appear likely that the trouble is insects, or the larvae of the Hessian fly. If this is the case and the outer leaves are pulled down from the stalk of an affected plant, the larva will be seen housed in between the leaf and the main stalk. In case this is the trouble it would be better to let the wheat stand until spring and see how it comes through the winter and starts out in the spring, when it may be plowed up for oats or other spring grain if thought advisable. If this is not the trouble, or if the yellow appearance of the wheat is due to its being sown on poorly drained soil, there would be no assurance that the oats would do any better than the wheat. This, like many of the problems which confront the average farmer is one for the exercise of good judgment by the individual, and any advice which might be given by one not fully conversant with all of the local conditions would be likely to be worse than useless, as it would more than likely be based on erroneous premises. However, if the trouble is found to be Hessian fly, it would be the part of wisdom to delay the sowing of next year's crop of wheat a little later, or until after the frosts which would kill the flies or render their ravages less likely. Our failures generally hold some valuable lesson for us if we can only appreciate it, and in a case of this kind the thing to do is not only to determine what to do with the wheat crop now on the ground, but if possible to find out just what is the trouble with it, so as to avoid similar complications in the future.



Barn Built by W. E. Leckey of Ohio, with Two Driveways Lengthwise of Basement.

culture and more liberal fertilization. It is also the part of wisdom to lay plans for the keeping of better stock rather than more of it than our farms can well carry. It is an unfortunate fact that while not enough stock is kept on many farms, too much poor stock is kept on others, with the result that the soil is further depleted in humus and thus in an important factor of fertility by the very method of farming which the owner be-

fields by poor management, the more acres we have to crop to get the same net results that could be obtained from a smaller area, if larger yields were secured. If this be true, and every farmer knows that it is true, let us plan to stop the further depletion of our soil. Let us grow a smaller area of cultivated and grain crops and try and make up for this deficiency by getting better yields on the area grown. Then if the clover seeding



Cutting a Good Crop of Corn on the Farm of A. Ledebuler, of St. Clair County, Mich.

LILLIE FARMSTEAD NOTES.

The New Barn.

As I have stated before through the Michigan Farmer, we have been making a new stable for the young cattle. The barns on the two small farms which I purchased, were moved up together and conveniently located and then a basement stable put under both. It is practically completed now and we have a considerable portion of the young stock installed in their winter quarters. While I would have built this barn of different shape, which would have made the stable a little bit better than it is now, yet I haven't any great reason for complaint, for we have an excellent stable. The stable itself is just as good as though the barns over it were modern. The stable is arranged as I know how to make it, and I think I have a good stable for young cattle and calves. Really, I think I have the nicest calf stalls that I have ever had the pleasure of seeing. I have visited a number of breeding herds in various parts of the country and I believe mine is an improvement on anything I ever saw. The stalls are 10 feet long, facing the driveway in the center of the stable. They are four feet wide, and are partitioned with woven wire fence of close mesh. I got the heavy poultry fence which is four feet high and have some 12 or 15 wires with a six-inch mesh. This is fine enough so that the smallest calf cannot get through the mesh and prevents sucking or anything of that sort. I like this woven wire fence for the partition stalls very much better than lumber. It looks cozier, it must be more durable and it did not cost as much as lumber. Each calf has a manger by itself, the manger is a combination one, so that we can set in a pail of milk or water and put in hay and the bottom of it is tight so that we can feed ensilage and grain in the same manger. The stalls are large enough for calves. It gives them plenty of room and they seem to enjoy their new quarters immensely. On the other side of the driveway is a row of stalls clear through for heifers. I have this nearly full now, and with both calves and heifers and I don't see how I could get along without this barn. I not only want to keep young heifers in this barn, but I would also like to put some of the dry cows here, so that I can keep the main cow barn full nearly all the time of cows giving milk. Stalls for the heifers and dry cows are the model stalls. After using this stall in my cow barn for several years, I am fairly well pleased with them. In fact, I have not seen anything that I would substitute for it. I have explained before this is a notion; what pleases one will not please another.

In this new barn I have installed the King system of ventilation, and I have an abundance of light. The barn is not finished any too soon, because cold, stormy weather came on. In fact, I wish it had been done several days before it was.

The Beet Top Silo.

At the present writing, November 20, we have not got the beet top silo finished. I am adding 16 feet to the top of it, making room to hold all of the beet tops on 10 acres with the necessary straw mixed in with them, and also have room for a car load of green pulp to cause the tops to settle and prevent them from decaying on the top. I have made arrangements to get a carload of pulp so that we can try this out thoroughly. Of course, we are a little late, we have had so much to do that we couldn't do all of this extra work and get it done on time. The beet tops however, are carefully piled up in small piles. We took considerable pains when we were drawing off the beets to leave the tops in good condition so that if the snow comes we can still find them and we will simply wait until we get the silo done and then haul the beet tops and put them into it. Of course, the silo will be so high now that we cannot pitch into the top of it and we are arranging to have an old-fashioned carrier, which will be run with a gasoline engine to elevate the beet tops into the top of the silo.

Fall Plowing.

Besides harvesting our beets, drawing them to the car and doing all of this extra labor, we have a fairly good amount of fall plowing done. The beet ground is all plowed for next year and all that portion of the corn field which we are not to cover with manure this winter is also plowed. It has been a very good fall for doing work, there has not been very much lost time and we have tried to improve it all.

The Wheat Crop.

The wheat crop in this vicinity is going

into winter quarters in as good condition, I believe, as I have observed for many years. The most of it was planted early in September and the fall has been fairly favorable for growth, so that the wheat has a good top and covers the ground in most instances, and while it was planted early, there is yet no evidence of Hessian fly, and with anything at all like a favorable winter, it seems to me that we have good prospects for a fair wheat crop next year.

Seed Corn Rack.

I have tried almost everything for a seed corn rack, and this year we are trying something a little different. In the basement of the farm house, I set up some two-by-fours reaching from the floor of the basement to the joists overhead; then we stretched small wires on either side of the two-by-four, drew them tight with a pair of staple pullers and stapled them. These two wires take the place of slats like an old-fashioned milk rack and I simply lay the ears of corn on the wire. One could get an immense amount of corn on a rather small rack. I did not do as good a job in making the rack as I would, did I not intend to remodel the basement of the house next summer when, I think, if this rack works out to suit me that I shall make a permanent rack there, in this way, to be used every year for the curing of seed corn. I think this is the handiest and most practical device that I have yet tried for a seed corn rack.

The Potato Crop.

I had a fairly good potato crop, for me, this year. It was only about half what it ought to be, but it is just about as good as I usually raise. We had 600 bushels of marketable potatoes on five acres. I should judge there are 75 or 80 bushels of small potatoes that I intend to keep for seed next year. Of course, this is better than the average yield of potatoes for the entire state, but it is only about half of a crop after all. I am going to try to do better next year and I am going to keep trying to do better until I can raise 200 or 250 bushels of potatoes per acre. At the present condition of the market there is not any very great inducement to grow potatoes, and yet I furnish the men with their potatoes, as a part of their wages, so that we have to have a goodly amount of potatoes to supply them and we will eat the crop most all up anyway. But a man ought to raise at least 200 bushels of good marketable potatoes per acre every year, on an average, and if he has the right kind of soil and does it right, there is no reason why he cannot raise at least 200 bushels per acre.

COLON C. LILLIE.

CEMENTING A CELLAR FLOOR.

We have just completed the cementing of the floor of a fruit and vegetable cellar beneath the farm house, and as soon as this is dry will move the things from the furnace and wood cellar, which is separated from the former by a partition plastered on one side and celled on the other. The vegetable cellar is 18x28 and eight feet deep, with stone wall on the three sides, lath and plaster on one side, and lath and plaster ceiling. The soil is sand and gravel, so no foundation was needed.

The cellar was cleaned and leveled as well as possible by the eye. A straight 2x4, 18 feet long was secured, laid across one end, and leveled, and lines marking a level run from top of each end of this 2x4 along the sides to mark the position of the top of the 2x4 each time it was moved. The 2x4 was then moved about three feet from the wall and set with the top even with the lines at the sides and secured by a few stakes driven into the ground in front of it. The ground behind the 2x4 was then leveled and either filled or dug out as necessary to give the proper thickness to the floor, which in our case was about 3½ inches or nearly the thickness of the 2x4 set edgewise.

The grout was then shoveled in behind this 2x4, leveled down, and packed with a hoe and float, and after drying a short time, troweled down smooth. When this strip was completed the 2x4 was moved forward about three feet, or just as far as one could reach conveniently to trowel down the strip, and the operation repeated. In finishing the last strip it was necessary to take a short 2x4 and go the narrow way of the strip, finishing up at the foot of the stairs.

We used one part Portland cement to six parts gravel by measure, mixing these by shoveling over four times in the mixing box while dry and twice after the

water was added. The gravel was not sifted and the floor was put down with one coat. If the troweling is done before the floor dries much it can be made smooth enough without sitting the gravel, and requires less cement. Our gravel was secured free from sand islands washed up along the creek, and was quite coarse and free from foreign matter. This kind of gravel requires less cement than when finer. The same kind was used in laying our floor in the stables last fall, and has been used in building state reward road this summer.

I believe this floor was laid somewhat thicker than is usual in a floor of this kind. If a thinner one was desired the 2x4 could be laid flat instead of one edge. In doing a thing of this kind I like to have it done well and thick enough so there will be no danger of cracking or crumbling. We used 4½ barrels of cement in doing this work, at \$1.60 per barrel, or \$7.20. The labor cost was \$9.00, making the total cost of the floor \$16.20, or nearly 30 cents per square yard.

Work of this kind can be done on stormy weather or even in winter, as the cement is down where it will not freeze. It is certainly a great convenience in keeping out rats and mice, making a cellar easy to keep clean, and facilitating the moving of barrels, forking potatoes, or cleaning up the litter from sprouting, etc. We intended to get this job done when building, but it has been put off for ten years, just as many jobs get put off that we can get along without doing. I do not believe we would accept the interest on \$16.20 for the next ten years and do without the floor. Cement is now the easiest laid, and cheapest of all floor materials, and should be used wherever it is suitable for this purpose.

We expect to lay the floor of the furnace cellar about four inches thick, and perhaps five or six beneath the windows where the wood and coal is thrown down. These places will also be covered with plank or boards until the cement has thoroughly hardened, when I think it will stand the strain.

Calhoun Co.

S. B. HARTMAN.

HUMUS AND FERTILITY.

Man advances as he works in harmony with and takes advantage of, the forces of nature; nature rarely, we may say never, does anything by chance. Her every effort is for some specific or general purpose, is orderly and under the domain of law. To this cause we give the name of "natural selection." She selects from the majority of individuals those which are best suited to her purpose and preserves them while the remainder perish; thus we have what is termed "a survival of the fittest," or those which are naturally best able to cope with conditions under which they live. If, however, a number of individuals are thus selected it must be for the reason that they possess some superiority over their fellows; in fact, it shows that even in the same species all the individuals are not exactly alike, however much they may resemble one another generally; some will be strong, others weak; some swift, others slow, and so on. It is easy to understand, if this be true, how the selection is made. When a number of animals are struggling together for sustenance, for existence, it is evident that those are most likely to succeed that possess some advantage over their opponents in strength, intelligence, adaptation to conditions, etc. The same principle can be applied to plants of every kind and leads to the same definite result, "a survival of the fittest," or those best adapted to conditions under which they live.

Nature designs that the earth shall be covered at all times with some specie or species of tree or plant growth. Upon the removal of our pine forests, there grew entirely different species of timber—oak, maple, beech, cherry, and other deciduous trees; the younger growth of pines succumbing to the destruction wrought by forest fires. Not content to wait until these future giants of the forest have attained sufficient growth, that their shade may afford protection to the soil from sun, wind and storm, that would burn, carry away or wash out to sea the stored up fertility of the soil, she gives life and growth to grasses, ferns, brakes, briars, etc., which, during their stay or until subdued by the shade of the forest, appropriate to their use in the formation of their structure the elements of fertility essential to their life and growth, and through their death and the decay of their tissue return them again to the soil, where the myriads of living creatures too

small to be seen with the naked eye, but constantly at work, known as bacteria, aid in the production of available plant food.

It was, no doubt, this same destructive agency—fire applied by the hand of the savage at intervals during past centuries, that prevented the forestation of that broad expanse of now rich farming country that was known as the "western plains." Had it not been for the frequent and unequal battles waged by this destructive enemy to tree life and growth, disputing the right of the forest to extend her domains, as no doubt nature designed she should, that vast region would have become one of heavily wooded forests. Nature, though evidently defeated in her original plan of preparation of that region for the home of civilized man and of agriculture, annually clothed it with a luxuriant growth of vegetation, the apparent mission of which was to make it worthy the distinction long since given it, "a veritable garden of the gods."

Mason Co.

HOMER SHIRLEY.

ALFALFA IN ST. CLAIR COUNTY A SUCCESS.

I have been very much interested in the many articles on alfalfa culture, given through The Farmer columns this past season. I have carefully read everything I saw regarding alfalfa and am very much interested in the crop. I want to give an account of my experience in growing this alfalfa. My field is one acre in size. The soil in some parts of the plot is clay, in some parts sand and some parts a heavy, dark soil. I have no tile drains, but ditches do not allow any water to stand. This acre was plowed the last part of May, and harrowed every once in a while to keep down weeds, also to conserve moisture. During July I applied one ton of lime, also 500 lbs. of commercial fertilizer, working same well into soil. I sowed 30 lbs. of alfalfa the first week in August. I think 20 lbs. would have been enough, but I wanted to be sure of using plenty of seed so used 30 lbs., resulting in a thick stand on the sand and darker soil, but on account of the drier condition of the clay soil that part is not quite so even, but still is good. I inoculated the seed with the pure culture method, and I feel that the inoculation is good, as plants all look thrifty and of a very uniform color. It all looks alike as to color. The growth will average about six inches. I will not clip it but will let it go down for mulch. I also intend to give a light top-dressing of manure early in the winter. The stand is very free of weeds, about all that showed was a large leaved plant, with a whitish blossom and white, fleshy roots. This was in the seed. I went over the field and pulled these all out, as I wanted only alfalfa on this piece of land.

This has been my first attempt in growing alfalfa, and I feel that my efforts have been a success and if the winter lets it live I will expect a profitable crop for 1911. In case it winter-kills I will try again and sow in June. This would give a longer growing season and allow the roots to sink deep into the soil, thus standing the winter better.

St. Clair Co.

G. A. BALDEN.

INCREASE IN SAND-CLAY ROADS.

During the fiscal year 1909, the office of public roads constructed 205,082 square yards of sand-clay road against 42,634 square yards for the preceding fiscal year. Experience has shown that our earth roads can, in general, be very much improved by proper construction and systematic maintenance at a cost well within the reach of almost any community. Furthermore, these improved earth roads serve as the best possible foundation for further improvements with a hard surface as means become available. Sand-clay has proved a satisfactory substitute for macadam in many sections of the country and the Office of Public Roads is encouraging a more general use of this method of construction. To establish the value of this form of construction in cold climates a number of experimental sand-clay roads were constructed in the middle west states.

Stop My Advertisement.

"We have closed out all of our ewes now that we have for sale. Feel well satisfied with our advertising in the Michigan Farmer. Will run another advertisement with you early next fall."—E. E. Leland & Son, Ann Arbor, Mich.

FREE! We will send new subscribers the rest of this year free. Subscription will start from January 1, 1911.

GETTING THE WINTER'S WOOD.

This question is one that is uppermost in the mind of the housewife at this time of the year if the wood pile is low or poor, and well it may be, for no matter what kind of wood is furnished she is expected to have meals on time. If the wood is dry, seasoned, and uniform this is a much easier task, and many circumstances which are trying to her temper will be avoided. Besides it is more economical to have seasoned wood for it is cheaper to let the wind and sun furnish the energy to dry it out rather than to have this energy come from the wood itself and thereby consume some of the energy which should go into heat.

There may be some farm homes where nothing but coal is used for fuel, but for the kitchen range good seasoned beech and maple wood is handier, cleaner, and I believe fully as cheap even if it must be bought.

On many farms beech and maple body wood is scarce, and something else must be used. If there is a wood lot, there will be some waste timber each year that can be utilized—trees that have blown down, branches broken off, trees dead at the top, and trees that have passed the age when they are improving, or the tops of trees that have been used for lumber. The down stuff would better be picked up early in the winter or in the fall if there is time, and cut into wood or hauled to the house where it can be cut later.

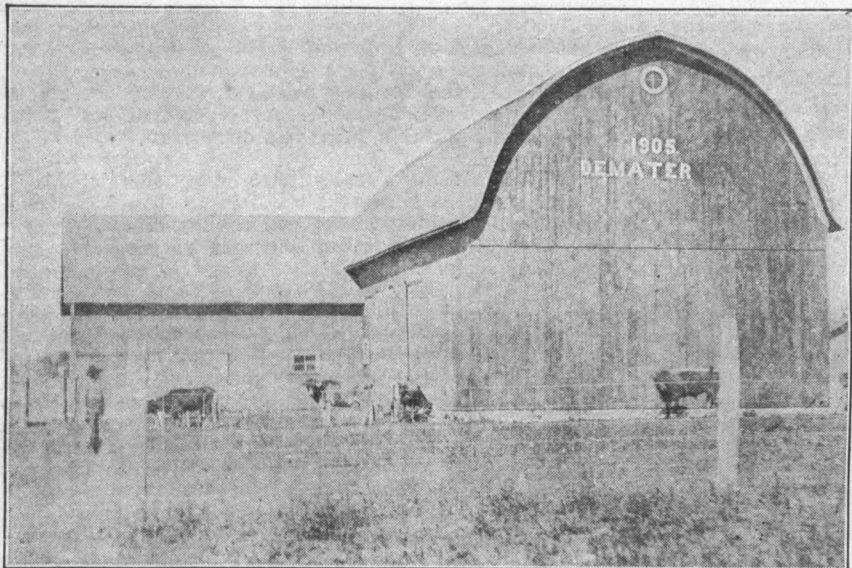
Then there are the rail fences found on most farms. As these pass their season-

lized for the sawing of poles and rails, and thereby save much labor. Last spring we brought our engine on the spray rig into use for this purpose. We purchased a small saw rig with 18-inch saw, also a rip saw attachment, for about \$15. A thresher gave us an old belt which we connected to the five-inch pulley on the engine. The saw pulley was about the same size. This rig worked well for small poles and rails, but there was not speed enough to pull through the larger poles in good shape. We are going to put a larger pulley on the engine which I think will work better. The engine is a 3-horsepower vertical outfit. Being already mounted on the sprayer we can take it wherever we wish to use it.

Calhoun Co. S. B. HARTMAN.

LIVE STOCK AND SOIL FERTILITY.

A few years ago I thought that the more stock we kept the more fertility we were adding to our farm, but things appear differently to me now, for I am beginning to see that a man cannot make manure enough to correct the detrimental effects of poor soil management. I am learning this not only from observation, but from experience. The man who buys grain feeds, and feeds them to stock which is at the same time biting off every trace of green, yes, even the roots of the plants and grass themselves and baring the soil so that no protection is afforded against continual sun burning and so that the bacterial action, which we are just beginning to learn is responsible for plant growth, is checked—that



The First Barn of this Type with Curve in Roof at Eaves Built in Clare County.

of usefulness the poorer rails may be cut into wood before they have rotted too badly. They make excellent summer wood. I have known farmers to purchase a farm having all rail fences, cut them into wood, and sell it for enough to buy posts and wire for wire fences.

Then there is the trash that accumulates about the farm buildings. Some of this is of no further value except for wood. We usually throw this material in a pile during the summer and cut it for fire wood in the fall. In our case there is a furnace with a wood grate that will accommodate wood up to four feet, so when this material is dry we throw some of it into the cellar where it is used in the spring and fall and in connection with coal in mid-winter. Some is kept out to use in the kitchen stove.

Another source of wood that can be turned to considerable account on some farms having a stream running through them is the driftwood from the stream. During freshets more or less of this material will be washed upon the banks, or may become lodged on the bottom of the stream. If this is hauled out during the summer or fall when the water is low and allowed to dry considerable fuel may be obtained from it.

Still another source on some farms where there are large orchards that have been neglected are the apple trees that have passed their period of usefulness, or the branches that are cut from the trees in pruning. Our past summer's wood came mostly from this source. This was a rented orchard that was badly neglected, and quite a number of large branches had to be removed. There are quite a number of dead and dying trees to be removed this winter, so we will get quite a supply of wood for next summer and some good chunks for the following winter.

Where one has a gasoline engine for other use upon the farm it can be uti-

man can not keep stock enough or buy grain enough to correct this torture of nature.

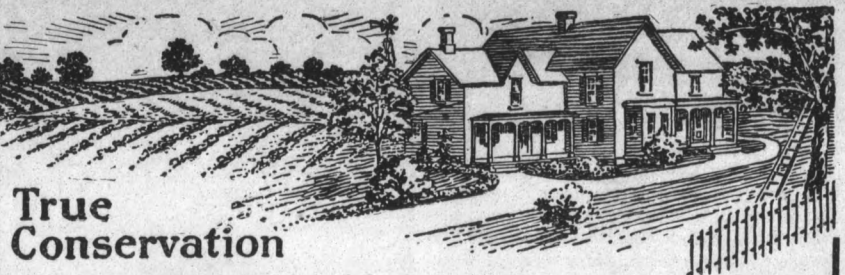
Our Best Farm Crops.

Our best farm crops are clover, corn, potatoes and wheat. The hay crop is perhaps of the most importance, both from the feeding standpoint and because it is a necessity in any system of crop growing that is adapted to our farms. The clover hay is the basis upon which we figure in making up the rations of our cattle and sheep. We grow a few acres of mixed hay for the work teams and to sell in case we have a surplus of roughage in the spring.

Next, I would mention the corn crop, for the reason that it is capable of making the most economical use of the manure resulting from feeding live stock and because it can be grown and harvested cheaper than any other crop that will furnish an equal amount of feed for winter. There are a great many more acres of corn raised than there were before the silo came into general use in the dairy sections.

Now the third best crop. We would not think of buying grain feed and growing clover unless we raised some cash or market crop that could make use of the surplus of nitrogen resulting from a liberal use of rich manure and clover growing. Potatoes are our cash crop and we have found that by using a fertilizer carrying considerable phosphoric acid and potash we can harvest a profitable crop of tubers and leave the ground in ideal condition for winter wheat with which we seed our clover and grass crops.

We grow wheat in place of other small grains because it is a great conservator of fertility and keeps the soil covered during the fall and winter, and it is much safer to seed clover with than spring-sown grain crops. It is capable of making very economical use of the fertilizer not taken up by the potato crop and can



True Conservation

Conservation has become a watchword and is on every tongue. When its novelty has passed and we come to consider its true meaning, we shall find that conservation of the resources of the soil of our farm lands is the most important element in the whole subject.

The American farmers have been a race of unconscious soil skimmers.

Now, we want not only to conserve productivity, but to restore some of that removed. We must get down to facts.

One fact often lost sight of is that we can double the value of clover and farm manure by supplementing them with

Potash and Phosphates

thus making a complete and balanced fertilizer. This is true soil building as well as plant feeding.

It Will Pay, for Potash Pays

We will sell you Potash through your dealer or direct, in lots from one bag (200 lbs.) up. Write for prices.

GERMAN KALI WORKS, Continental Building, Baltimore, Md.
Monadnock Block, Chicago, Ill.

Atlas Long Fibre Felt Roofing

The Best Made Will Stand the Test in Any Climate

The long fibre wool felt used in Atlas, is the only kind of material you would have as the base and body of the roofing you use on your buildings, if you knew its superior quality and merit. It holds the roofing together compactly and solidly, increases the endurance, the wear and life of the roof. Remember, a building is only as good as its roof.

We carry large stocks of Atlas roofing at various points in the United States, from which to ship to your station promptly, as soon as your order reaches us. We guarantee safe delivery and satisfaction. Atlas roofing comes in three weights, one of which is just suited to the job you have in hand. The three grades are called Standard, Heavy and Extra Heavy. They are of different thickness, but are of the same quality—Atlas quality—in every case. You cannot buy better roofing, even if you pay more money. If you are not certain which weight you need, send for free samples of Atlas roofing and we will mail you some of each to look over and examine.

All Atlas Roofing is 32 inches wide, and one roll of either weight contains 108 square feet. Standard Atlas weighs 34 lbs.; Heavy Atlas, 44 lbs.; Extra Heavy Atlas, 54 lbs. per roll. We have sold Atlas for years—millions of dollars' worth—and know it will stand every guarantee that any roofing will. It is the very best.

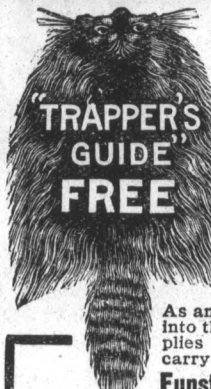
No Tar or Other Injurious Substances used in Our Atlas Roofing. Our Atlas Long Fibre Felt Roofing is better than shingles for new or old roofs. Made of selected long fibre wool felt, saturated with asphalt, surfaced on both sides with a composition which looks like rubber. Always pliable, not affected by heat or cold; waterproof, acidproof, fireproof; will not rot, mildew, or be eaten by insects; no painting or roof coating required. Enough large headed galvanized nails and cement for laps to lay it included with every roll.

At Our Price, About Half Usual Retail Prices, we Pay the Freight to Your Station. AT OUR NEW FREIGHT PREPAID PRICES we are giving you the greatest roofing values ever offered. We have sold thousands of rolls, now giving satisfaction on thousands of roofs. You can't get better prepared roofing no matter what price you pay.

Our prices on Atlas Roofing, freight paid are: To all points south and west as far as Kansas, Nebraska and the Dakotas \$1.27 per roll for the standard Atlas, \$1.58 per roll for heavy Atlas, \$1.94 for extra heavy Atlas; to points in Oklahoma, Texas and Louisiana, \$1.45 per roll for standard Atlas, \$1.85 for heavy Atlas, \$2.20 for extra heavy Atlas; to all other points in the United States \$1.61 for standard Atlas, \$2.02 for heavy Atlas, \$2.43 for extra heavy Atlas. Each roll contains 108 square feet and we send enough large headed galvanized nails and cement for laps to lay it. At these freight prepaid prices you must order at least three rolls. If you want samples we will send them free. Send your order or request for samples to our nearest address: 19th and Campbell Sts., Kansas City, or Chicago Avenue Bridge, Chicago, 130

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Get the very highest prices and the quickest returns by sending your furs to Funsten. No matter whether it's coon, mink, skunk, muskrat, marten, fox, wolf, lynx or any other fur, we pay the most in real cash. We receive and sell more furs direct from trapping sections than any house in the world. The biggest American and foreign buyers are represented at our regular sales, which run into millions of dollars yearly. It's the fierce competition amongst this army of buyers at our sales that enables us to get higher prices for our furs than anyone else. And that's why we can pay you more, and pay it quicker.

Big Money in Trapping While work is slack on the farm, try your hand at trapping. It's great sport, and you'll be surprised at the big profits. We send our New Trapper's Guide, Fur Market Reports and Shipping Tags FREE. Write for them today.

TRAPS AT FACTORY PRICES! As an accommodation to trappers and shippers, and to encourage men to go into the trapping business, we offer to furnish best steel traps and other supplies at actual factory prices, including the famous VICTOR trap. We carry a larger stock of traps than any other house in the United States.

Funsten Animal Bait best on the market for years. Guaranteed to increase your catch. Beware of imitations. Funsten Animal Bait won Grand Prize at World's Fair in 1904. U. S. Government uses Funsten Bait. One can of Funsten Animal Bait brought one man in St. Michael's, Alaska, \$1,199 clear profit. Costs only \$1 a can. Different kinds for different animals. Write today—right now—for our valuable Bait Folder, Trapper's Supply Catalog No. 10, Highest Cash Fur Price List and Trapper's Guide—all free.

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When writing to Advertisers mention the Michigan Farmer.

THE WATTS MFG. CO., Box 26, Jackson, Mich.

be sowed on the potato field as soon as the crop is harvested and the ground harrowed. The mineral plant food left in the soil after the potatoes have been liberally fertilized, provides an abundance of fertilizer for the wheat crop and clover seeding.

Our Crop Rotation.

The crops mentioned under the sub-heading of "Our Best Crops" are the ones that I have found best adapted to the rotation of crops on a dairy farm. This rotation enables us to conduct an extensive system of intense farming.

It distributes the labor of the men and teams so regularly over the year as to greatly economize the acreage cost of tillage and aids in settling the labor question. The same hired men are kept during the whole of the year. In this way they are contented. The best feature of this rotation is the simplified, regular and contented help and the reduced cost of tillage through the continuous service of the teams and a like application of the men's time.

In this rotation each plant has an excellent opportunity to gather its nitrogen, phosphorus and potassium. The manure and clover sod afford a good supply of plant food for the corn crops and leave the soil with an abundance of nitrogen for the potato crop.

The potato field is given a hearty application of fertilizer rich in phosphoric acid and potash which affords an abundance of plant food for that crop, and leaves the soil in ideal condition to be sowed to a crop of wheat immediately after the potato crop is harvested.

By supplying the wheat crop and clover with plenty of mineral plant food we secure good yields of wheat and clover makes a better growth and does better work at nitrogen fixation.

Each crop so succeeds the other that planting begins about the first week in May and lasts until the middle of June, when tillage begins immediately after, or before planting is over. Clover hay is ready to be cut by the last week in June, then comes the mixed hay and the timothy, succeeded by the wheat harvest, early potatoes, silo filling, apple picking, and after the first killing frost in October we start the potato digger to work.

Manuring, plowing, crop marketing, pruning fruit trees and grape vines and hauling wood keep up activities until the spring work begins again. Such a rotation of crops is a great economic aid in the conservation of the time of the men and teams.

New York. W. MILTON KELLY.

ENSILOING CORN FODDER.

Would like advice as to the best method of handling nine acres of drilled corn (cut before frost), well eared with nubbins, whether it would be best to shred it or cut and put into silo. Will be fed to milch cows, of course. It is nearly bone dry at present. SUBSCRIBER.

In all probability, the way to get the most out of this corn fodder is to put it into a good silo if you have one. While it would have been better to put it in when you first cut it, because a larger per cent of it would have been digestible than it is now, being dry-cured, yet by putting it in the silo and wetting the fodder as you put it in, the corn will be softened up, will heat up, ferment slightly, and make quite palatable ensilage, not as good as though put in when it contained the natural juice, but much more appetizing than dry fodder. You will have to put on considerable moisture. No one can tell just exactly how much. This moisture ought to be evenly distributed throughout the corn. It will not do to run four or five feet of cut fodder into the silo and then attempt to wet it down. Because the water won't be evenly distributed, and there will be places in it that do not get moisture enough and this will dry mold, and your ensilage will come out in big chunks and there will be much loss. The corn should be wet as it is being put in, and the best way is to run a stream of water into the blower, then every particle of the corn as it is being cut, is moistened, and it will pack and settle evenly in the silo, and will be free from the dry mold, providing that you get moisture enough. I can say that there could be a stream of water at least as large as a good-sized lead pencil running in constantly. While putting this corn into a silo will not add to its food value, it will make it more palatable and more appetizing. The cows will relish it better.

COLON C. LILLIE.

PROSPECTUS

The Michigan Farmer

For 1911

With our old friends and subscribers, we are content to let the record of the Michigan Farmer for progressive improvement from year to year stand as sponsor for the continuation of its progress and improvement in the future. Our plans for 1911 are, however, already well defined, and it is a pleasure to briefly outline them for the benefit of prospective readers at this time. We have, during the past season, added to our corps of practical writers who contribute regularly to the various departments of the paper and materially increased our list of special contributors, so that we are able to select the matter published with more discriminating care than ever before and to secure special articles from competent authorities on any special branch of agriculture, while further improvements in our plant and equipment have made it possible to handle our work with greater facility and present the up-to-date matter contained in the paper to its readers in a more attractive form than ever before.

In addition to maintaining the regular departments of the paper in an up-to-date manner, by having the matter and discussions contained in them of a timely character and in advance of, rather than following the season when the matter published will be of practical aid and benefit to the reader, we have planned for the presentation and discussion of one important special subject for each month during the coming year. These discussions will not detract from the character or extent of the regular departments, but will be presented in the issues alternating with those containing the Magazine Section and will be a substantial addition to the paper and add not a little to its value to every reader.

Special Subjects to be Discussed.

The following is a list of the subjects selected for special discussion during the year, by competent writers who are specially qualified to discuss the subjects assigned them.

JANUARY.—"Farm Management." Good management is an important factor in successful farming as in the successful conduct of any other business. Under this head, the management of the small, as well as the large farm will be given special prominence.

FEBRUARY.—"Farm Buildings and Equipment." The adaptability of buildings and equipment to the requirements of the farm will be discussed under this head with a special view to their economic efficiency.

MARCH.—"Soil Management." Depletion in soil fertility from the poor management of soils is so alarmingly prevalent as to make this a most important topic for special discussion.

APRIL.—"Plant and Animal Breeding for the Farmer." A practical discussion of this important topic from the stand-

point of the general farmer, rather than the specialist.

MAY.—"Farm Power and Transportation." These are increasingly important factors in the conduct of an up-to-date farm and their discussion should prove profitable to every reader.

JUNE.—"Social Needs and Recreations for the Summer." Factors which make for contentment and satisfaction with farm life, but which are too often neglected at this season of the year.

JULY.—"Pastures, Catch Crops and Cover Crops." All important for the consideration of Michigan Farmer readers at this season of the year.

AUGUST.—"Seed Selection and Care." Methods of saving and storing seeds for next year's planting are important factors in the success of next season's crops.

SEPTEMBER.—"Marketing Problems." Having grown our products well, it is important that they be marketed wisely. Much benefit should be derived from this discussion by every reader.

OCTOBER.—"Feeds and Feeding." Economy in feeding means a thorough understanding of the feeding problem. Every farmer is a feeder to some extent and will be benefited by this practical discussion.

NOVEMBER.—"Preparations for the Winter." A much more fruitful topic than the average reader would think. Its discussion will benefit every member of the reader's family.

DECEMBER.—"Special vs. Diversified Farming." A subject which can be most intelligently discussed when the season's results are fresh in our minds.

SUBSCRIBE NOW.

If you want to get the benefit of these special discussions as well as from the helpful reading always to be found in our regular departments, including free veterinary advice, and at the same time provide your family, including the boys and girls, with the wholesome reading to be found in our magazine department, the woman's department of which has been raised to a high standard of excellence during the past year, you should subscribe for the Michigan Farmer. If you send in your subscription at once you will not only avoid missing any numbers of the paper, but save money as well, as we have found it necessary to advance our subscription price after January 1st, 1911.

Present Prices:		After Jan. 1, 1911:	
1 year	\$.75	1 year	\$1.00
2 years	1.20	2 years	1.50
3 "	1.50	3 "	2.00
5 "	2.00	5 "	2.75

THE MICHIGAN FARMER,
Detroit, Mich.



FREE! We will send new subscribers the rest of this year free. Subscription will start from January 1, 1911.

LIVE STOCK

FEEDERS' PROBLEMS.

Regularity as an Economic Factor.

Given a sufficient amount of feed and of a suitable variety to make up a well balanced and palatable ration for any kind of live stock, the item of regularity in feeding is one of the most important factors in the economical maintenance of live stock on the farm. On the dairy farm or the farm which is devoted to the breeding of pure-bred live stock or on the farm where stock feeding of any kind is carried on in a commercial way, this fact is well known and generally recognized. But on the farm where no help is kept during the winter season, other than the farmer and his family, and where commercial feeding is not practiced on a large scale, this is not always the case. Generally the chores are done rather late in the morning, and if breakfast is ready before all are done, the balance of the live stock has to wait until after breakfast for their morning meal. In most cases the pigs are the last to be fed and from incidental causes of this kind are apt to get their meals less regularly than the balance of the live stock kept on the farm. But if some trip is to be made to a distant locality, or if some especially important work is in hand, the average farmer will make an effort to get around in the morning, and will feed all the live stock earlier in the morning and later at night than they are accustomed to being fed. And so from one cause and another there is bound to be considerable irregularity in the feeding of the live stock kept on the average small farm. Of course, it may be impossible to eliminate this in all cases, but if the importance of regular feeding were fully appreciated by the average man, he could make it a point to feed his stock at more regular hours than he has been accustomed to doing in the past.

In this connection it is well to consider the time of feeding, that is, whether a noon feed should be given or not. In the writer's opinion it is a better plan to feed liberally twice a day at regular hours than to feed irregularly morning and night and at noon as well. This plan gives the farmer who is doing his own "chores" more liberty than the other plan, making it possible for him to get away for several hours in the middle of the day in good weather to transact any necessary business and affording him the best of the daylight for the doing of needed work during the winter months. If the stock is fed in the stable in the early morning and given some coarse forage in outside racks in the yard during pleasant weather, with a good shelter to run under at will during the day and access to an abundant water supply, they will get along very nicely in pleasant weather without any attention at noon, and if accustomed to feeding at regular hours in the morning and at night will exhibit a degree of satisfaction and contentment which makes for economy. But it must be remembered that animals have nerves as well as senses, and no reasoning power to fortify them against the deleterious effects of irregular feeding. They know when meal time comes as well as do healthy children, and in order to make the most of their feed in the way of meat or milk production or growth of carcass, they should not be unnecessarily subjected to the strain of waiting impatiently for their owners to supply their needs. The success of the best feeders lies in their thoughtful care of the animals placed in their charge, and they not only supply the regular needs of their animals promptly at the accustomed time, but are continually studying them to determine how they can make them more comfortable and contented, and spare no effort to that end. If the average farmer would interest himself in his live stock to the same degree, he would soon become a specialist in some line of live stock production rather than making this factor of production a side issue and would thus improve his farm and enlarge his bank account at the same time.

THE Place Carrots Should Occupy in the Horse's Ration.

We have 300 bu. of carrots that we wish to feed our horses and we would like some advice as to the best way of feeding them. We have lots of corn and oats to feed with the carrots but wish to feed the carrots to best advantage. We have six horses. Will carrots take the place of grain entirely as a ration for a horse?

Montclair Co. R. R.
The proper place for carrots or other roots in the horse's ration is as an appe-

tizing succulent food which promotes the more complete digestion and better assimilation of the other feed given, rather than as a dependence for nutrients and to displace any quantity of either grain or roughage in the ration. Used in this way they will prove a profitable addition to the ration, and by thus aiding in the digestive process and in toning up the system, will make for economy of other feed. Of course, there are some digestible nutrients in carrots, but there is also a great deal of moisture, and if too many are fed they will have too great a laxative effect and cause undue perspiration in horses that are worked. Carrots are popularly supposed to be the best of root feeds for horses, but where they have been tried out as a substitute for roughage in some cases, they have failed to give satisfactory results, but where used in limited quantities as a succulent feed they are always beneficial. Usually from 12 to 15 lbs. of carrots per day is considered a maximum ration for horses, and where they are fed to horses that are being worked it is preferable to feed them at night, unless it is preferred to give them a small feed at each feeding time, and smaller quantities than the above should be fed at first, and the amount decreased if too great laxative effects are noted.

Cottonseed Meal for Hogs.

Will you kindly tell me through the Michigan Farmer of what value cottonseed meal would be to feed hogs and growing pigs?

Van Buren Co.

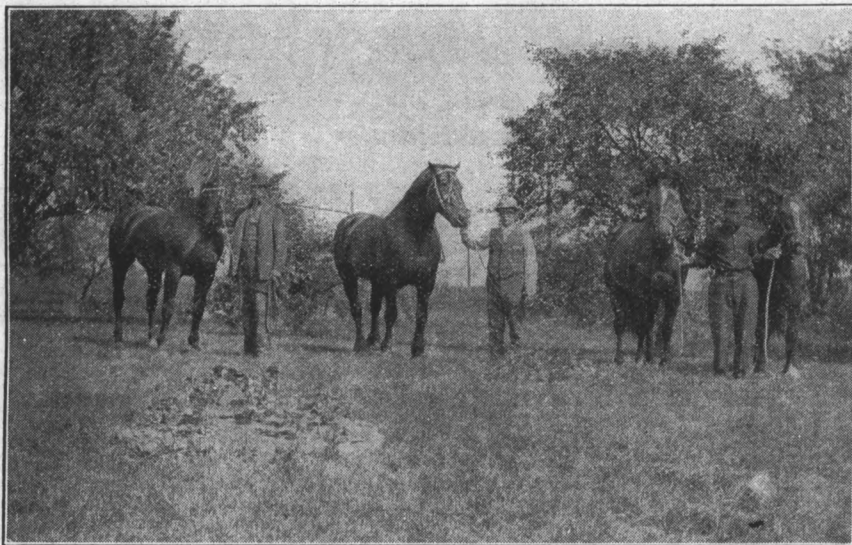
G. J.

Cottonseed meal is not considered a safe feed for hogs. If fed to them in any considerable quantities, trouble is likely to follow, and while it has been demonstrated that some cottonseed meal can

would help, to a limited extent. What is considered a normal number of hogs in the United States is close to fifty million. If two pounds were to be added to every hog sold there would be an increase of one hundred million of pounds, which would help some toward meeting the demands of the consumers, but there are other things that are responsible for present conditions.

As is often said, there are two sides to a question. As much as the packers sympathize with the consumers, they do not express one word of sympathy for the farmer who, under adverse circumstances, and by persistent toil and constant effort, "garners from the soil the primal wealth of the nations." Instead of expressions of brotherly kindness there are too often expressions of envy, that frequently makes matters appear as though the producers are arrayed against the consumers, and are responsible for the conditions that bring about high prices for meats and other articles of food. They scheme, and devise various plans by which, at certain times of the year, they can bear down the prices of stock to the producers. If they are obliged to pay a good price for stock they seem to regret it and envy the farmers what justly belongs to them. Late years they have been saying that they were buying too many pianos for the farmer's daughters and that too many farmers are using automobiles, as though country people were not entitled to a fair share of the luxuries of life.

Let us be more definite about the matter. As we approach the fall and winter season stories that have a tendency to depress trade and reduce prices, are circulated in the commercial press and



A Good Start in Profitable Horse Breeding on an Ohio Farm.

be fed to the hogs with apparent safety for a limited time, it is far better for the average breeder or feeder of hogs to make up their ration of other feeds, and use the cottonseed meal to balance up the feed for the dairy cows and steers, for which it is excellently adapted.

THE MEAT PACKERS AND THE FARMERS.

Considering all that has been said on this subject, it would seem that it is not necessary to add much, if any, more. But changing conditions bring the matter before our minds very frequently. The high prices that have prevailed for the last two years have made it possible for farmers to make a fair profit on raising pigs and making pork, under almost any system of management, and it is believed by many who are in a good position to judge accurately that by far too many are becoming indifferent in regard to the kind of hogs they raise and feed for market on their farms, as well as to the time of year that their pork hogs are sold. Words of caution from the agricultural press have not been heeded and the producers have been willing victims of market manipulators.

The prices for pork meats that have prevailed for some time have been so high that consumers have appealed to the packers asking them to devise some means by which this popular, palatable and nutritious class of meats can be secured at lower prices. Packers have replied with the statement that if a better class of hogs were kept on the farms, and only two pounds of increase of meat to the animal could be added much would be accomplished toward a larger supply to meet the demands of the consumers who want to secure their pork meats at a lower price. I am ready to admit that the packers' suggestion is a good one and

prices go down; the packers buy their year's stock of meats at a low figure. Then, as spring approaches, the supply of meats from the country diminishes, and a plea of scarcity is raised, prices advance, and the packers sell their winter accumulations at a greatly advanced price. So the game goes merrily on until time to buy again. The next fall the same scheme is again followed, the farmers are frightened to sell, and they all hurry their products to markets and secure the low prices, but when spring comes consumers are paying high prices for what they need from the speculators, who are but go-betweens, fleecing both the producer and the consumer. The resourcefulness of these speculators enables them to make a plea at every turn in the game that will throw the blame on the producer. It matters but little how trivial the plea the consumers accept their statements as true, and are ready to hold the farmers accountable for the high prices.

One phase of the situation ought not to be omitted. As the prices for hogs on foot have declined near to, if not quite, three dollars per hundred, the prices for bacon have remained the same to consumers. The price to farmers for light hogs suitable to get a fair class of bacon from has not been maintained. At present \$7.50 per hundred is the prevailing price. A market report comment says: "It is a lower market than a year ago, despite smaller receipts everywhere in the west. At that time \$8.25 was the top, and the bulk sold above the 8-cent line."

With a lighter supply of hogs in the country than the normal number by two millions and the price of bacon held up to 25 cents per pound to consumers, it looks very much as though the speculators have the situation under their control, and are cutting a pretty wide swath.



SAVE
a
Bushel
of
OATS
Out of
Every
Five

Mr. J. T. Andrews,
Brecht, Ont.

writes us:—"I have used Pratt's Animal Regulator and cannot recommend it too highly as a conditioner, I can keep my horses sleek and fat on 25 per cent. less than the usual amount of feed."

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Animal Regulator

is doing this for thousands of successful stock farmers throughout the country. Horses and cows in Winter quarters need Pratt's Animal Regulator to keep the bowels active and to help digestion and assimilation. Feed goes further because the animal assimilates all the nourishment contained in it. Nothing is wasted.

Use Pratt's Animal Regulator this Winter,—your cows will give more milk, and Spring will find your stock worth many dollars a head more than they are today. It is

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25 lb. pails \$3.50, also in small packages and 100 lb. bags. Don't wait another week. Begin using it today.

Pratts Colic Cure will save your horse

Write for our new free book of Pointers on Horses and Cattle.

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Horse Owners Should Use
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Caustic Balsam

The Great French Veterinary Remedy.
A SAFE, SPEEDY AND
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SUPERSEDES ALL CAUTERY OR FIRING
Impossible to produce any scar or blemish. The
safest best Blister ever used. Takes the place
of all liniments for mild or severe action. Removes
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As a **HUMAN REMEDY** for Rheumatism,
Sprains, Sore Throat, Etc., it is invaluable.
that one tablespoonful of
WE GUARANTEE CAUSTIC BALSAM will
produce more actual results than a whole bottle of
any liniment or spavin cure mixture ever made.

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 CO., Cleveland, Ohio

**MINERAL
HEAVE
REMEDY**

**NEGLECT
Will Ruin
Your Horse**

**CURES
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Send to day
for only
PERMANENT
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**SAFE
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\$3 PACKAGE
will cure any case or
money refunded.

\$1 PACKAGE
cures ordinary cases.
Postpaid on receipt of
price. Agents Wanted.
Write for descriptive booklet.

Mineral Heave Remedy Co., 463 Fourth Ave., Pittsburg, Pa.

DR. FAIR'S NEW WORM REMEDY

is given in feed—it kills worms
in two ways: by suffocation
or absorption, but never hurts
the horse or brood mare.

Symptoms of Worms
Nervousness, itching, rub-
bing tail, rough coat, hide-
bound, dandruff, unthrifty
condition, bloating, dusty rectum and
passing worms.

60 Horse Doses Delivered By Mail **\$1.00**
New customers may have a regular 25c box for trial
by sending only 4c in stamps.

DR. FAIR VETERINARY REMEDY CO.,
W. C. FAIR, V. S., Prop.,
5712-14 Carnegie Ave., Cleveland, O.

Prices Sent Free
Chicago Scale Co.

How farmers, as well as the consumer, are going to free themselves from these freebooters who hold them up at every turn, is a difficult problem to solve. It looks as though there is an opportunity for some of our "trust busters" to cover themselves with glory, and be of great service to the masses that are producers as well as the masses that are consumers.

Wayne Co. N. A. CLAPP.

GETTING THE CATTLE ON FULL FEED.

The novice in cattle feeding often makes the serious mistake of being in too great a hurry to get the steers on full feed. He wants to see them gain rapidly, and is apt to make their appetites the guide as to the amount of grain fed right at the commencement of the feeding period. Now while the appetite of an animal is the very best guide to follow in providing it with feed, after its system has become adjusted to the new conditions of liberal grain feeding, it is not a safe guide to follow at the start, for the reason that violent changes of any kind will upset the digestive system, and the steer will eat more than its digestive system can care for properly for the very reason that it is a new experience to him to get all the grain he wants. As a feed for getting the steers on full feed there is nothing superior to shock corn. When fed shock corn some fodder will be consumed with the corn, and digestive troubles are less likely to follow than where the grain is consumed and lies in the stomach in a solid mass, which induces fermentation and the feeder notices that the animal is "off feed," a condition which is more easily induced than remedied, and which in any case means a loss of valuable time in the commencement of the fattening process. But whatever feed is used in getting the steers on full feed, it should not be sought to get them to consume a maximum ration too quickly. Far better results will follow if at least 30 days are taken to get them up to a maximum consumption.

Oakland Co. A. R. FARMER.

TONIC FEEDS IN THE RATION.

The average owner of live stock does not use a sufficient variety of feeds in making up a ration for the animals under his care. If a variety of wholesome and nutritious forage and a palatable mixture of grains, combined with some roots or silage to give a desirable degree of succulence to the ration, were fed the animals there would be less trouble and loss from digestive ills or malnutrition among the live stock maintained on the farm. Animals like a variety of food the same as people do, but under ordinary conditions they do not get the required variety of feeds in their diet. If they did the use of tonic feeds would not be as important as under conditions which now exist on the average farm, but even then the digestion and assimilation of food would be promoted by the use of tonic feeds very much the same as digestion in the human body is promoted by the use of condiments which have no real food value, but the beneficial results of which are not questioned by one who has made a study of dietetic problems. But not all owners of live stock are in a position to provide just the suitable feeds in the proper proportion for the best results for the animals under their care, hence the use of tonic feeds is of still greater importance in the promotion of digestion and more complete assimilation of the nutrients in such feeds as are available. It is far easier to keep the live stock in a healthy condition than it is to treat them for digestive trouble after the same has become chronic. It is for this reason that so large a proportion of live stock owners have found it is to their advantage to use some one of the standard tonic feeds in the ration given their live stock. Of course, no musty or damaged feed should be given them at any time and as great a variety as possible should be provided, but there are plenty of intelligent users of the same who are ever ready to assume that a tonic used as above outlined aids them in the economic maintenance of their live stock.

Wayne Co. T. H. B.

From various sections reports are received that farmers are extremely anxious to buy high-grade sows that are prolific, and high prices are paid in every instance. There is a great deficit in the hog supply, and it is going to require considerable time to restore the supply to normal proportions, the population of the country having been growing amazingly, while the production has been falling greatly behind former years.

I'll Feed Your Stock 60 Days Before You Pay




**I'll SAVE Your Sheep
I'll SAVE Your Hogs
I'll SAVE You Feed
I PROVE IT Before You Pay**

**Don't stand by and let your lambs and sheep die off.
Don't let your hogs be eaten up alive — contract diseases and die.
Don't let your cattle and horses continue to look as if fed on straw—thin, scrawny, shaggy, dull,—though you're feeding them well.**

The trouble is they are full of worms—full of parasites that are sapping their lives away—killing them—eating up your profits, while you are standing by, and wondering what's the matter.

Stop it — stop it quick. It's costing you a lot of money. I will do it, and prove it before you pay me a cent. All I ask is a chance to show you how SAL-VET

The Great Worm Destroyer and Conditioner

will quickly stop your losses — how it will straighten up your sick lambs, sheep, hogs and other live stock—how it will rid them of all stomach and intestinal worms and parasitic infection—how it will put life and vim into the blood—aid digestion and stimulate the appetite—help them to get more good out of their feed in less time. You'll marvel at the change Sal-Vet will make.

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A CAUSE FOR SLOBBERS IN SECOND CROP CLOVER.

Many people are of the impression that the reason why second growth clover causes slobbers in horses and colts is because of some peculiar element or substance growing or entering into such as an inherent quality belonging to second crop clovers in general. Not all seasons are favorable for a second crop attaining a growth large enough to pay for the cutting, but in exceptional seasons the second clip may yield from one to two tons per acre. Is it a proven fact, that there is some normal element always found in such clovers that produces these ill, and sometimes fatal, effects, or is its some further removed but nevertheless salient evil that attaches in some peculiar manner to them? In an experience reaching over several years the writer has made many exhaustive trials in feeding new, or first clip and the second cut the same season of clover to satisfy himself, on this much mooted point, and from his observations he has formed some satisfactory conclusions. As a rule, the second crop is seldom as rank and tall as the first cutting. As a consequence, especially in wet seasons, not nearly as much blackened foliage results on the former as on the latter, for the reason more sunshine and air can penetrate through it, thus drying it out in a rapid manner after every wet spell. The stems are also more separated, thus growing and curing out without the noticeable mold or mildew so often seen upon the undermath of heavy hays. Therefore, this being the case, theoretically, they should be, on this point at least, better feeds than the first cut, as they are more immune from rust, mold, blackened foliage, etc.

Then the evil results from feeding rests not on the point of its simply being a second growth crop, its scheme of different development, nor its available or unavailable food content, for by analysis there is no appreciable variance found in the two hays. I have fed from second clip hay during ordinary seasons and have had the best of results. But, perhaps the very next season similar hay, cured in the best manner, when fed to horses proved disastrous, causing them to slobber badly. Now, why this wide variance in feeding values and results on similar hay? I will endeavor to state, that a very small species of ground spider, classed as Retiliariae—"line-weavers," of which, distributed throughout the world some 600 allied kinds are known and many native to this country, spin countless millions of line webs and filaments, extending, crossing and recrossing from blade to blade of grass, weeds; among limbs, twigs, etc., in fact, where and protuberance offers over all the surface of the ground, and this peculiar disposition of theirs to spin thus indiscriminately, seems to be at its maximum during August, September and October, or right at the time usually when our second crop hay is harvested. Ordinarily these minute, silky threads are almost invisible, but may readily be seen mornings when dews collect on and greatly enlarge them, also when webs come between the range of vision and bright sunlight. These countless threads, after the clover is cut, dry with the hay and are never seen afterwards, unless by the aid of a powerful glass. They seem to act in a forcible manner on the salivary glands when horses are fed continually upon these web-covered hays, and in a short time produce slobbers. Cattle, with their more hardy systems, partake of such hay without ill results. There are seasons as noted, when through some unexplained reason, these spiders do not spin freely and during such, if the season has been favorable for the growth of a second crop of clover, it will be found immune of this evil and may be fed freely without fear of bad results. Some remedy, system of culture, perhaps even a spray, may yet be devised to overcome this evil.

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G. A. RANDALL.

There are many complaints in stock feeding districts regarding bad railway service, which, instead of improving, appears to be getting worse in some cases. There is a bad condition of motive power, and slow running is an inevitable result, stock trains frequently arriving at the Chicago stock yards greatly behind schedule time.

Chicago cattle receipts recently have embraced a great many cars of stockers and feeders shipped in from Wisconsin and Minnesota, and they have been particularly hard to dispose of, buyers frequently refusing to even make bids. Buyers have taken advantage of the greatly increased offerings of such cattle, and prices have suffered sharp reductions as a natural result.

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VETERINARY

CONDUCTED BY W. C. FAIR, V. S.

Advice through 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. When reply by mail is requested, it becomes private practice, and a fee of \$1.00 must accompany the letter.

Pigs Bite Each Other.—I have some pigs that catch one another on the sides or catch on the trough and suck. Is there any remedy for a vice of this kind? W. J. D., Auburn, Mich.—Had you not better feed them out of a different and more roomy trough?

Ringbone.—I have a driving mare that I bought two years ago. She had a ringbone that had been fired with a pointed iron; she seemed to go sound until a short time ago when she showed some lameness. Our local Vet. prepared a blister which I applied and after the second application she walked sound, but trotted lame. The third blister is now working and I would like to know what else can be done to effect a cure? R. B., Williamston, Mich.—Your mare should have absolute rest while the treatment is going on and if she is kept quiet and a few more blisters applied such as you are using, she will get well.

Colic—Indigestion.—I would like to know what ails my grey horse. Following changes in feed he seems to have colic or indigestion. C. F. K., Dearborn, Mich.—Your horse suffers from indigestion which gives rise to colicky pains. Give two tablespoonfuls of the following compound powder at a dose in feed two or three times a day: Ground gentian, ginger, fenugreek, anise, cooking soda and powdered charcoal—equal parts by weight.

Cracked Heels.—I have a large five-year-old mare that I bought last spring that had scratches, which I succeeded in curing. When allowed to stand in the stable much her legs stock, but exercise reduces the swelling. Her heels are not raw, but are covered with hard scales and I would like to know what to apply. O. E. S., Charlotte, Mich.—Give 2 drs. Fowler's solution at a dose in feed two or three times a day and apply one part oxide of zinc and five parts vaseline once or twice a day.

Chronic Lymphangitis.—I have profited by reading the veterinary column, but fail to find a case similar to the one I shall describe. Two years ago my 12-year-old mare had an attack of lymphangitis affecting one fore and one hind leg. Since then when she stands in the stable and is not exercised, her legs stock, but otherwise she seems to be well. W. L. F., Otter Lake, Mich.—Give her 2 drs. Donovan's solution and a teaspoonful of powdered rosin at a dose in feed twice or three times a day for 20 or 30 days. Her bowels should be kept loose and she should be exercised daily. When idle, feed very little grain.

Dandruff.—Have a pair of two-year-old colts that I have just brought home from pasture and I find their backs are dirty and covered with blotches. I am inclined to believe that the sores are caused by them biting each other. H. H., Bradley, Mich.—Give each of the colts a tablespoonful of the following compound powder at a dose in feed twice or three times a day: Gentian, ginger, fenugreek, anise, bicarbonate soda and powdered rosin. Also groom the colts well twice a day. To soften the scabs on their backs it may be necessary to use vaseline.

Out of Condition.—My 12-year-old mare is badly run down, legs stock and she travels stiff; last winter she was lame, caused by spavin; she is a big eater and drinks a great deal of water. J. A. T., McGuire, Ont.—If the spavin is not causing any lameness you had better leave it alone, but if so apply one part red iodine mercury and four parts lard every 10 days and give her a tablespoonful of powdered gentian, a small teaspoonful of powdered copperas, a teaspoonful of fenugreek and two tablespoonfuls of cooking soda at a dose in feed three times a day.

Bony Enlargements of Pasterns.—I have a two-year-old filly that has a bunch on each of her pasterns about midway between hoof and fetlock; these bunches do not cause any lameness but I have thought she felt them on account of resting the leg. S. H., Brooklyn, Mich.—It is not always good practice to treat bunches of this kind when they are producing no lameness; however, you will check their growth by applying one part red iodine mercury and eight parts lard every six or eight days.

Roarer.—I have a young horse that is wind-broken and I had him operated on for this ailment last spring, but the operation seems to have been a failure, for he is gradually growing worse ever since and now he is scarcely able to breathe. I called our local Vet. to examine him and he informs me that there is no help for him. E. C. N., Fenton, Mich.—In a case of this kind I invariably put a tracheotomy tube in wind-pipe. The operation is simple, not expensive and usually gives fairly good results; therefore, I suggest that you have your Vet. operate on him.

Collar Boils.—One of my horses is troubled with small boils which appear only on the shoulder where the collar rests. These bunches first inflame, then soften and break. I am inclined to believe that his blood is not in good condition for his legs stock. J. B., Kingsley, Mich.—Give 1 oz. hypo-sulphite soda at a dose in feed or water twice a day; also give a teaspoonful of powdered nitrate of potash at a dose once a day. Dissolve ¼ lb. sugar of lead in a gallon of water and apply to shoulder three times a day.

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Ringworm.—I have a cow that has several sore spots on her back and face for which I wish you would prescribe a remedy. T. K., Akron, Mich.—Give her a teaspoonful of sulphur at a dose in feed three times a day and apply iodine ointment to sores daily for a week, then apply one part oxide of zinc and five parts vaseline once a day.

Surfeit Buds.—I have a three-year-old filly that I purchased three months ago and shortly after I got her she acted uneasy; was inclined to rub herself and I thought she must be lousy. I treated her for lice, but some time later concluded that I was mistaken for she broke out with a skin eruption which covers most of body; these pimples are first moist then dry, harden when they slough off a little tuft of hair comes with the scab. What can be done for an ailment of this kind? S. C. C., Roscommon, Mich.—Give 2 drs. Donovan's solution at a dose in feed three times a day; also give two tablespoonfuls bicarbonate soda at a dose in feed night and morning. Groom your colt well twice a day; also feed enough well salted bran mash or vegetables to keep the bowels open. Be sure and allow plenty of fresh air into stable, also keep the barn clean.

Foot Soreness.—Thrush.—I have derived much benefit from reading the veterinary column of the Michigan Farmer and come to you for advice regarding a 12-year-old mare that shows lameness in one fore foot every time she is newly shod. She has been examined by different persons, but they fail to find the cause of her trouble. I also have a four-year-old colt that has thrush, and would like to know how he can be cured. J. C., Munith, Mich.—It is possible that your horse shoer fails to level her foot and after the shoes wear some she is more comfortable. Are you sure that he does not raise the heels too high? I fully believe if a plain, flat shoe with low calks or a rubber pad is applied she will go sound. Now, regarding your four-year-old colt that has thrush, you had better apply calomel to the diseased parts of frog twice daily; if there is any trimming of frog required, you can do it.

Stocking.—Have an 18-month-old colt that stocks when allowed to stand in stable over night; this colt ran in box stall with ground floor last winter and was in pasture all summer. I wish you would tell me what to give the colt and how to take care of him. H. T. R., Topinabee, Mich.—Give your colt a tablespoonful of the following compound powder at a dose in feed three times a day: Powdered sulphate iron, ground gentian, ginger, fenugreek, bicarbonate soda, rosin and charcoal. This treatment should be kept up until a recovery takes place. The hind legs should be bandaged in cotton, but avoid putting on the bandages too tight.

Vertigo.—I bought a horse last spring that appeared to be perfectly healthy, but occasionally he is affected with a sort of fit and our local Vet. tells me it is caused by an increased blood flow to head. He advises me to avoid feeding him too much, but work him hard. H. B., Moline, Mich.—Give your horse 2 drs. bromide potash at a dose in feed three times a day, keep his bowels moderately loose and exercise him daily. Well salted bran mash and vegetables will usually keep the bowels open without the assistance of any drugs. You should use a nice-fitting collar that is not too short.

Barrenness.—My eight-year-old mare fails to get in foal; she has been mated five different times. C. E. W., Otsego, Mich.—Dissolve 3 ozs. of bicarbonate soda in a gallon of clean tepid water, wash out vagina of mare, using a rubber tube and funnel daily. This solution should be used freely for ten days or two weeks. If she was my mare I should not breed her at this season of the year and before having her served ascertain if neck of womb is closed, if so dilate it with fore finger or a sound. It is possible that you should use an impregnator on her.

Impure Milk.—I am sending you a sample of sediment that settles on bottom of jar when milk of cow is allowed to remain in jar for 36 hours. This white substance varies in quantity some days. W. R. K., Volmer, Mich.—You had better dry her as she will be of no value for dairy purposes until she comes fresh again. Apply iodine ointment to udder three times a week for three weeks.

Indigestion.—I bought a yearling colt last August that was quite thin and low in flesh. I turned him on ordinary pasture for a month and then he was turned on a clover lot; a week later he had an attack of colic; since then he has had several light attacks of spasmodic colic. I forgot to say that wherever the flies bit him they made a sore. O. V. W., Olivet, Mich.—Give colt a tablespoonful of the following compound powder at a dose in feed three times a day: Ginger, gentian, bicarbonate soda and powdered charcoal.

Heifer Fails to Come in Heat.—I have a three-year-old heifer that dropped her first calf last February; since then she has failed to come in heat and as I wish to breed her I would like to know what to do. She has fallen off in milk flow lately, but does not appear to be sick. J. P. H., Mt. Pleasant, Mich.—Give her 15 grs. powdered cantharides at a dose in feed three times a day. Feed her plenty of grain and some vegetables; also keep her warm, for by doing so you will induce her to come in heat.

LIVE STOCK NOTES.

The approach of Thanksgiving brought out an active demand for prime fat lambs of moderate weights, and such lots sold at a premium. Too heavy lambs have been discriminated against, and the 90-lb. consignments do not sell nearly as well as choice lambs weighing around 70 to 80 lbs. There was also a strong demand for prime fat little pigs for the Thanksgiving feast, pigs weighing from 40 to 60 lbs. being wanted, and they brought good prices, as not many were offered for sale. These times shows are altogether too valuable for fattening until developed into heavy hogs to be sold on the mar-

sumption usually is that they are from droves where sickness has broken out.

Recent sales of corn for December delivery in the Chicago market have been made as much as 14c a bushel lower than a year ago, and naturally under the circumstances farmers generally see the advisability of feeding their corn on the farm rather than accepting current low prices. Accordingly, there is a widespread demand for lumber for building additional cribs, and unusually large amounts of corn will be stored and fed at home. Farmers are busy in the fields husking corn, and cornstalks are taken good care of by careful farmers, as they are valuable for cheap feed. The decline in prices for live stock of all kinds causes a desire to lower the cost of feed as much as possible.

The Illinois Experiment Station sold a car load of hogs at the Chicago stock yards recently which was an experimental lot that were fed according to the new feeding standard being developed by Professor Dietrich. The hogs at eight months of age weighed on an average of 290 lbs. with empty stomachs. Professor Dietrich has long been trying to produce 300-lb. hogs in eight months, and he has nearly succeeded in his aim.

George M. Crego, of Kane county, Illinois, who has been a farmer and stockman for 56 years in that region, recently marketed a car load of 328-lb. Hampshire hogs that were two-thirds sows, in the Chicago market, receiving \$8 per 100 lbs. A Providence, R. I., shipper bought them, the consignment including a stag that tipped the scales at 660 lbs. Mr. Crego said the packers are going to get fooled this winter on the hog run for packing, and in his opinion it will be smaller than a year ago. He predicts high prices for another year, as pork is a popular kind of meat with most people. Mr. Crego never ceases to feed cattle and hogs, no matter what the condition of the market may be temporarily, and makes it pay, although there are some unprofitable years. He sticks to the Hampshire breed of swine, as they are prolific breeders, averaging eight pigs to a litter, with some litters running as high as twice that number. He has 30 brood sows at the present time, and his aim always has been to hold hogs until they weigh from 300 to 400 lbs. He has found that the best profits are made in this way. His pigs are born in April and May, instead of in March, when the weather is apt to be trying on new-born pigs. Mr. Crego is deeply interested in maintaining the fertility of his farms and finds from several experiments that salt and lime mixed make a cheap fertilizer and greatly increase the production of corn.

A prominent Chicago firm says: "We have recently interviewed representative men among both buyers and sellers of hogs in different parts of Illinois, Indiana, Iowa, Nebraska, Kansas, Wisconsin and Minnesota, and can learn nothing to encourage us in the belief that we are going to have heavy runs of heavy hogs in the near future. In fact, we find counties in Illinois and Kansas that are practically bare of hogs. The country was over two years in getting out of the hog business, and we calculate it takes more than a few months to get back into it."

Fat little yearling cattle have been great money-makers for their feeders for many months, and it seems rather strange that more farmers do not try their luck along these lines. These cattle weighing around 900 to 1,000 lbs. are great favorites with the butchers, who pay big prices for them, but the feeder must know his business thoroughly in order to obtain the best results. It should be borne in mind that yearlings in half-fat condition meet with relatively poor demand and are harder to sell than older cattle in the same condition. Stockmen have found that merely roughing through the calves during the winter with the object of selling them as baby beef the following summer or fall has been unsatisfactory.

With the gradual disappearance of fat western range lambs on the Chicago and other western markets, the trade has at last had to rely on fed westerns and native lambs. Fat range lambs are now pretty well out of the way, and Chicago is getting the best native lambs ever seen at this season of the year, the bulk being very heavy. For the first time in the history of the lamb trade, at this season of the year, killers are discriminating against heavy lambs, there being too many of that class. The Chicago packers are throwing out the heavy buck lambs or buying them at reductions of from \$1 to \$1.50 per 100 lbs. from prices paid for the remainder of a car load, these lambs being very coarse and wholly undesirable. Country shippers should bear

It is reliably reported that there will be from 25 to 35 per cent more cattle fed in Indiana, Ohio and Michigan than last winter, while the gain in sheep and lamb feeding in these states will run from 35 to 50 per cent. A good marketing of hogs from these states is expected up to December, but it is believed that the movement marketward will fall behind that of last year on account of the abundance and cheapness of corn. Farmers are expected to market their hogs weighing around 190 to 200 lbs. There is reported to be a normal supply of brood sows, and some gilts will be kept for breeding purposes.

While eastern markets are getting so many hogs from their own territory the eastern shipping demand is not likely to undergo any improvement in the Chicago market. By midwinter different conditions are expected, and as soon as the east has to come west for its hogs there will be lively competition for the better class of hogs. Farmers should not be frightened into sacrificing their pigs, but many think it just as well to ship in hogs by the time they weigh around 200 to 225 lbs. After hogs get to weighing these amounts they are slower in putting on additional flesh. More farmers should get busy in breeding hogs for the market, it being the best paying business connected with farming.



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The Lawrence Pub. Co.,
 Detroit, Mich.

DETROIT, DEC. 3, 1910.

Subscriptions Expiring After January 1, 1911

Subscribers whose time expires after January 1, 1911, (no matter when), will be given the benefit of our present subscription prices, providing their renewal orders reach us before January 1, 1911. But no orders, either new or renewal, will be accepted at the present rates after that date.

As our subscription department will be extremely busy in December we advise those who can conveniently do so to send their renewal orders now and the subscriptions will be extended from the time now paid to.

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Kindly tell your friends and neighbors of our present offers and get them to order with you.

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CURRENT COMMENT.

Just at this time The Farmer and our Napoleons of the Future, nance who, by reason of their extraordinary personal success, are generally credited with an almost uncanny economic intelligence and foresight are predicting that the country must soon pay for the recklessness and extravagance of modern methods of living in a season of business depression which they see already approaching. To the fact that there is something of reason in their attitude may be attributed the echoes heard from lesser lights in our business and social organization, and the not uncommon timidity of farmers regarding future market conditions for the products of their farms.

A case in point which will illustrate the warning which we feel impelled to give our readers, may properly be cited. A professional man who thought himself a wise student of business economy was re-

cently heard to say to a small audience of farmers, whom he happened to meet, that if he was a farmer he would sell everything he had to sell at once, as he believed it would bring more money now than later, no matter what the product. His premises were agreed to by a number of the farmers present, but fortunately there was one farmer in the little bunch who were gathered together who had a good business head, and who proceeded to tell the others that if all the farmers in the country received such advice and acted on it promptly, their products could not be gotten on the market before the bottom fell out all along the line, but that the consumers would profit little for the reason that the products would fall into the hands of speculators, who would make the profit which ought to accrue to the producers, and which would accrue to them under a gradual and normal marketing of their products.

That farmer expressed a more wholesome truth and withal a more timely warning than the wisest of economists who see breakers ahead for the immediate or distant future of business conditions in this country. The time has come in the history of the world when producers may safely indulge in a considerable degree of confidence regarding the future demand for their commodities. The population and consequent consumption has overtaken agricultural production. No more great areas of public land remain to be exploited with cheap labor in the flooding of the market with a surplus of foodstuffs. The time is at hand when agriculture will take its proper rank as a business, and it should be a part of the program of every business farmer to study crop production in its proper relation to market conditions, rather than be stampered into selling his products at a price which does not seem a fair value under the conditions which obtain at any given time. Truly, confidence in the future is a needed factor in the prosperity of all business, but it is doubly so in the business of farming, and the present outlook would seem to indicate that the business farmer need have no serious misgivings for the future, notwithstanding the pessimistic talk which is not uncommon at the present time. It will be remembered that the agriculture of the country suffered least of all business interests in the passing of the last near panic, and we believe that our business farmers are in a condition not only to weather any impending storm, but as well to prevent any big slump in the markets for their products by intelligent methods of marketing as well as of production.

A large number of copies of this issue are being sent to Michigan

farmers who are not now taking the Michigan Farmer. While a large majority of Michigan farmers appreciate the fact that their own "trade" paper has a greater value to them than any other agricultural publication, yet there are some who do not seem to appreciate this fact, probably because they have never given it any serious thought, which is our reason for calling the reader's attention to the matter in this issue.

There are many reasons why the Michigan Farmer is better adapted to the needs of Michigan readers than any other farm paper. One of the most potent of these reasons is the fact that the matter contained in the paper is selected and prepared by editors and writers who are not only thoroughly conversant with Michigan conditions, but who have a practical experience in or are now actively engaged in the different branches of agriculture of which they write. Among our regular contributors are a number of the most successful and widely known farmers in the state in their respective lines of agriculture, and who are so well and favorably known among the rank and file of the farmers of Michigan that it is unnecessary to enumerate them here. Aside from these regular writers who contribute to no other agricultural paper, and well known specialists in other states who contribute to our columns, the Michigan Farmer is a clearing house for practical ideas gained by many of its successful readers, who contribute from their fund of experience for the benefit of other readers from time to time throughout the year. Then the markets which are contained in each issue are up-to-date, and the best possible guide to Michigan producers in the selling of their cash crops and live stock. Our live stock markets are secured on the ground by special representatives, not only at the Detroit stock yards, but as well at Chi-

cago and Buffalo. Our crop reporting service gives a summary of local crop and market conditions not only in the several counties of Michigan, but as well in the other North Central states. In addition to all this, information is furnished gratis to readers who are confronted with problems in the solution of which they desire practical aid, while our veterinary columns are a free medium for the securing of expert professional advice regarding the treatment of live stock. Altogether the Michigan Farmer is a paper specially gotten up for Michigan readers. Aside from the practical matter for the farmers themselves, it offers the best of reading for every member of the household. The magazine section affords a wider range of good reading than is contained in any similar department of any other farm paper available to Michigan readers, including a women's department of which we are especially proud.

Aside from the general matter which will be contained in the paper for the coming year, including the timely discussion of every phase of every department of Michigan agriculture, we have arranged for the special discussion of some important topic each month, as outlined in our prospectus for 1911, which will be found on page 474 of this issue. These special discussions alone will be worth more than the subscription price of the paper to any Michigan farmer who subscribes for it. Do we need to give any more reasons why Michigan farmers should take the farm paper published in their own state in preference to any other? We believe not. But there is a reason why they should subscribe for it promptly. We have found it necessary to advance the subscription price of the paper after January 1, on account of the increase in the cost of the material and labor which goes into it. But as a matter of fairness we have given extended notice of that fact and are affording all an opportunity to subscribe for one or more years at present prices during the balance of this year. In view of this fact we are anticipating a rush of orders during the closing days of the present year, for which reason we would appreciate it if old subscribers would renew their subscriptions early. There is nothing to lose by so doing, as the subscription will be extended from the date of its present expiration, and readers may avoid the vexation of having one or more numbers of the paper delayed in reaching them. It is even more to the advantage of new subscribers to send in their subscriptions early, for the reason that they will receive the paper the rest of the year free, their subscriptions being dated from January 1, 1911.

ATTENTION, MICHIGAN FARMERS.

We wish to acquaint every farmer in Michigan with the fact that the price of the Michigan Farmer will advance on January 1, 1911. In order to give all a chance to send in their subscription at present prices, present subscribers may send in their renewals now or any time before January 1, 1911, and their time will be extended from expiration of their present subscription as far ahead as they wish to pay. A sample copy of this issue is being mailed to a lot of good farmers whose names we have, and an addressed subscription envelope enclosed somewhere in this paper, which they can use for sending in their subscription. All subscribers get Free Premiums. See page 486 for illustrations and descriptions of premiums, also a summary of special subjects to be discussed in 1911 through the Michigan Farmer in the various departments. No farmer can afford to miss them. Tell your neighbors about the advance in price. Free Premiums for clubs.

FREE CHRISTMAS PRESENTS.

The buying of Christmas presents is quite an expense as well as a good deal of trouble to select them for members of the family or friends. We have a suggestion to make which may help some to solve this problem. On page 498 of this issue will be found illustrations and descriptions of some of the free premiums with subscriptions to Michigan Farmer. Among them will be found knives, razors and other useful articles which would make fine Christmas presents, and which the subscriber could use as such to their own advantage and with satisfaction to the recipient, in case they happen to be supplied with the articles offered themselves. This is a good time to subscribe for three or five years and get some of the choicer of the selections offered, as the subscription price of the paper will advance on

January 1, as elsewhere announced in this issue. In this way the subscriber can not only secure some valuable Christmas presents absolutely free, but can as well make a very considerable saving on the cost of the paper to themselves.

HAPPENINGS OF THE WEEK.

National.

The government has finally filed a bill in the federal court of the New York district for the dissolution of the sugar trust. The allegations of the bill of complaint are to the effect that the sugar trust has been formed for controlling the sugar business, and that the companies concerned be restrained from doing interstate business and that persons be stopped from voting on the stock of the companies mentioned in the bill.

The Erie railroad, in accord with the rules adopted by other systems will employ only men between the ages of 16 and 35 years. This rule has been adopted because of the pension system inaugurated some time ago.

The transcontinental railroads leading to the Puget Sound district will use oil as fuel and as fast as they can change their equipment to provide for its use the change will be made.

A north-bound freight train on the Detroit and Ironton road ran into a derailer near Toledo while moving 20 miles an hour. The engine was thrown into a ditch and ten cars were telescoped. The engineer was instantly killed.

Arrangements have been made by the postoffice department to care for the Christmas foreign mail so that it will get to its destination in time for distribution before the holiday, providing it is mailed so as to get in New York city by Dec. 16.

The residents of Alaska are complaining, through the governor of the territory, that the present policy of the federal government toward the use of natural resources is greatly interfering with the advancement of the territory, that it has discouraged the investment of private capital and generally dampened business. He makes these claims in his report to the interior department.

An investigation into the conditions of the families of the striking garment workers of Chicago, revealed the fact that many children and infants are starving. The committee reported the number in need to be around 5,000. A fund has been started for giving immediate relief.

The splendid showing of the Michigan exhibits at the great land show in Chicago are surprising the public in general, in the quantity and the quality of the products of this state.

A fire in a small factory building almost adjoining a fire department station at Newark, N. J., resulted in the loss of 24 lives and likely others will succumb to injuries incurred.

A gas explosion in an asphalt mine near Durant, Oklahoma, resulted in 13 deaths. Five of the unfortunate men were blown out of the shaft by the force of the explosion, and nine were entombed.

The new record for high flying with an aeroplane, which was believed to have been broken by Drexel last week, has not been altered since the instrument used by him when unsealed, showed that the height attained was not 9,977 feet as stated, but 9,714 feet, thus leaving the record of Johnstone, who was killed at Denver last week, still the highest official flight yet made.

Foreign.

It is unofficially stated that the Japanese government has subsidized a line of steamers between New York and Callao and Valparaiso. The ultimate purpose of the enterprise appears to be that the Japanese wish to learn the wants of the people of the southern continent that they may take over the manufacture of those articles and eventually rob America of a portion of her trade. England has also organized a mail route to take effect after the completion of the Panama canal to carry mail from South American points.

There have been a number of minor outbreaks in the rebellion in Mexico the past few days. The federal troops have as yet been unable to capture the rebel leader, Madero, who is now said to be located in the Lugana district, a fertile valley surrounded with mountains. He is claimed to be gathering more forces about him and is preparing for a larger campaign against the government. Federal troops are being sent into the state of Chihuahua.

The second English parliament in the reign of King Edward VII was dissolved Monday of this week in pursuance of the program of the liberal government which will go before the people with the questions pertaining to the prerogatives of the house of lords. The elections, which are to follow the campaign now on, will bring to a crisis the struggle of the house of commons against the veto power of the house of lords and will mark another great step in the evolution of the government of the Islands.

In the past fortnight marines of the Brazilian navy in the harbor at Rio de Janeiro mutinied, forcing the officers to abandon the fleet and taking complete charge, steaming about the harbor, firing upon the city and generally impressing the populace with a sense of insecurity. The mutineers were not opposed by the other warships in the harbor and the forts about the city, the fact being that the members of the other ships were in entire sympathy with the mutineers. Harsh treatment upon the part of officers who were in the habit of using the whip without mercy for the slightest misconduct, and imposing other unwarranted abuses of authority is given as the cause. The federal congress is in session and promises have been made the marines that laws will be forthcoming protecting them against barbarous treatment. Upon these promises the ships were given over to the government again.

Magazine Section

LITERATURE
POETRY
HISTORY and
INFORMATION

MICHIGAN FARMER
AND
LIVE STOCK
JOURNAL
PUBLISHED WEEKLY
ESTABLISHED 1843

The FARM BOY
and GIRL
SCIENTIFIC and
MECHANICAL

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

TREES OF SOUTHERN CALIFORNIA

MANY of the trees of present-day southern California, that look so strange to the eyes of an easterner, are not natives. Originally this region was but lightly wooded. Chapparal of various kinds covered the foothills, willows and sycamores bordered the streams, and here and there grew scrubby live-oaks and pines.

Now the visitor to southern California sees the eucalyptus everywhere. With

BY HOPE DARING.

California Board of Forestry gave a great impetus to the planting of the eucalyptus by distributing different species of the tree. The one most widely known is the Eucalyptus globulus, or blue gum, but there are varieties that differ widely in form of growth and general characteristics. Some specimens are gigantic, while others are mere shrubs.

The tree is everywhere. It borders the country highway; again, it shades the city streets. Many ranches have a eucalyptus grove. This is composed of several rows of the trees, and, so rapid is the growth that from the grove is obtained the firewood needed for the ranch.

This rapid growth is one of the tree's best points. A bulletin issued by the Forestry Society of California gives the average growth of a 10-year-old eucalyptus as 11 inches in diameter and 92 feet in height. The bulletin further states that proper care can greatly increase this growth. Men are going extensively into the business of raising forests of these trees for the timber. The wood is hard and durable. It has been called "Hickory's younger brother," and is in demand for fuel, piling, railroad ties, farming implements, furniture, and other purposes. The red gum is even used for paving, and in the Chamber of Commerce at Los Angeles are exhibited paving blocks that had been in use in an Australian city for 12 years.

"Like scimitars the eucalyptus blades cut through the sunset; their curved edges keen

Its dripping redness hold; their outlines clean

Are etched the purer as the swift glow fades."

The pepper shares with the eucalyptus the place of honor as a shade tree. A well grown specimen is a delight to the eye. The foliage is evergreen, the long, narrow leaves growing on fine, wire-like stems. The tiny, yellowish-white flowers grow in panicles, but it is when the blossoms have been followed by long pendant spikes of red berries that the Californian can well be excused for his pride in the tree.

Its botanical name is Schinus Molle, and it is sometimes called the pea tree. South America is its native home. Tradition says it was introduced into California long ago from Peru. The Los Angeles City Library declares there is no record

been brought from other countries. The Washington or California fan palm was a native of San Bernardino and Riverside counties, and now grows freely all over southern California. It is of the same family as the flefera palm that is so freely grown by amateurs in the east. A fine specimen here will have about 50

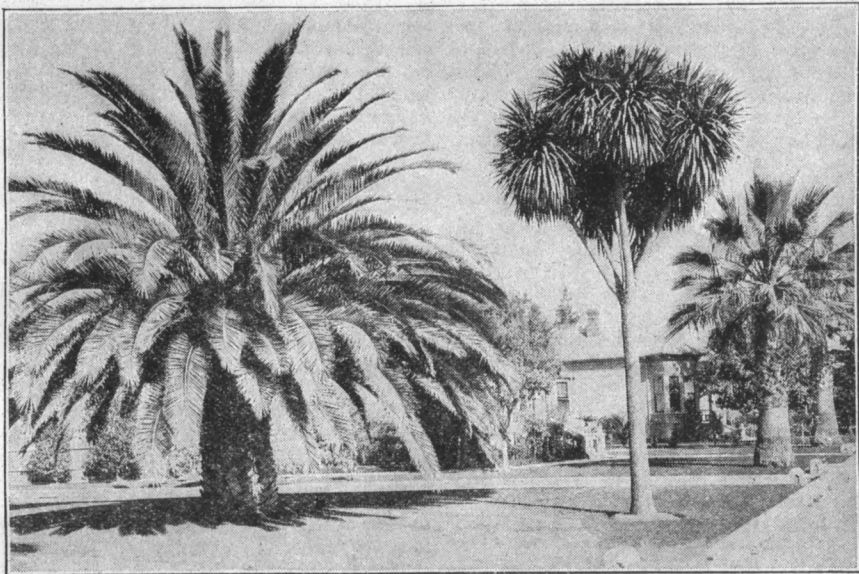


Pendant stems and spikes of berries that grow on the Pepper Tree.

its straight fawn-colored trunk, from which hang pendant strips of brown bark, and its shining evergreen foliage, it is a fair sight. When the branches are starred with clusters of fuzzy white blossoms, the tree's beauty is enhanced.

This tree, commonly called the "gum," is a native of Australia. There are many varieties, and the best known are spoken of as the blue gum, the red gum, and sugar gum. The name eucalyptus was given by Baron von Muller who made an exhaustive study of the tree. The word means "well concealed" and refers to the closely covered flower buds.

In 1856 the tree was introduced into California and was soon growing in many localities. It was a man named Cooper, who at Santa Barbara, in 1870, commenced planting on a large scale, with a view to testing the different species. Sixteen years later the



Three Palm Varieties—Date, Tree, and Fan Palms, in order, left to right.

of the incidents of its introduction, but within the quadrangle of the San Luis Rey Mission, forty miles north of San Diego, there stands a mighty pepper tree, and this is pointed out to tourists as the parent of the species in that land. However it came, it is now found everywhere, both its beauty and its rapid growth making it desirable as a shade tree. The berries are about the size of peppercorns, and have a sharp, biting taste. Both of these facts are given as reasons for the popular name.

Of the palms many varieties are found growing here, but the most of them have

fan-like, pale-green leaves capping its trunk. This trunk, lower down, is covered with the bases or shields of dead leaves. It is claimed that the "Twin Palms," two gigantic trees in Los Angeles, were planted by the Jesuits, a local authority saying "probably two hundred years ago." A species of the date palm is largely cultivated here, not for its fruit, but for ornamental purposes. It is the most beautiful palm to be seen in California, having long, curving, fan-like leaves. These trees are seen at their best in the parks, as they need space that cannot be given on a city lot. Few finer

specimens can be found any place than those which constitute a group in a prominent park in Los Angeles. This park also contains several specimens of what is known as "tree palms," some of which are of great beauty.

But it is the orange tree that is California's pride. "The orange is a part of nature's color scheme for this land," exclaimed an enthusiastic Californian. "After the gold was taken from the mines, there came the golden wheat. There was always the vivid red-gold of the California poppy and the softer yellow of the wild mustard, while over all falls the gold of the sunlight. It needed only the orange to complete the symphony in yellow."

The orange is a native of India. It was introduced into



Rows of Pepper Trees form a continuous Arch over many broad Avenues in California Cities.

South America, Mexico, and southern United States by the early Spanish explorers. It is claimed that the first orange trees in this locality were planted by Friar Sanches at San Gabriel Mission about 1771, which is the date of the mission's founding. In 1841 a man named Wolfskill set out an orchard of two acres where the Los Angeles Southern Pacific depot now stands. The growth of the industry and the evolution of the navel orange reads like a fairy tale, but the story has been too often told to need repetition here. Figures may be unsatisfactory things, yet they show results. California's orange, lemon, and grapefruit

crop last year was valued at \$26,000,000. The orange groves are a beautiful sight, although the newcomer is often disappointed because the trees do not reach a more commanding height. They are low, with a compacted, rounded top. The orchards are cultivated, as well as irrigated, and the dull brown earth does not make as attractive a background for the tree as the soft green sward would. In April the blossoms are at their best, and, at the same time, many of the trees still retain much of their golden fruit. The memory of the scent of a blossoming orange grove will long linger in the mind of at least one tourist in this land of sunshine.

ROMANTIC LIFE of HERBERT FURLONG.

Thrilling Experiences of a Soldier of Fortune, Ranchman and Federal Detective.

BY J. W. GRAND.

After disposing of my ranch possessions I saddled my pony and pack pony and headed for Buffalo, a stage station between Cheyenne and Laramie. This station was about 80 or 90 miles due west. After riding hard till about noon I decided to have a bite. Approaching a little stream, I dismounted—this stream was about two feet wide, two feet deep and as clear as crystal—all the world like a little brook trout stream that you would see in New England, something very unusual in that country. Dipping my canteen to fill it with water my attention was drawn to a little mound of red stones in the bottom of the spring, shaped exactly like the old-fashioned sugar-loaf. They were stacked up in the middle of the stream, six or eight inches in diameter at the bottom and came to a point at the top, the water just covering them. I looked at them for a while out of curiosity, then I put my hand in and gathered a handful. They were all sizes, from a pea to a marble, some larger, but all of a reddish color. I thought it a strange occurrence, how nature had placed them there. Then I threw them away, (that was when I threw away a fortune), lit my pipe, vaulted into my saddle and thought no more of them. They were rubies and that is the ruby mine you read so much about in Wyoming.

I had yet 50 miles to ride and was anxious to get to the end of my destination and I rode hard. It was through a beautiful valley. The corpses of dead cattle and some buffalo were strewn along the way. I reached Buffalo by sundown and passed the night in the stage station. Buffalo consisted of a dozen hastily constructed houses. There were a few settlers near the town. One of the eccentric characters of the place was Bill McGwigin, a time-beaten frontiersman, uneducated, unpolished and, as a traveler and missionary once said, ungodly. His life had been spent west of the Missouri and he knew as little of the ways of civilization as an Apache Indian knows of the modern plan of salvation. He was a dead shot with a rifle, an ardent lover of whiskey and an expert at draw poker, but aside from these he had no accomplishments worth speaking of. The justice of the peace in, and of, that precinct, had a misunderstanding one night with a cowboy over the very important point of who played low in a game of seven-up, and after the funeral it became necessary to elect a man to succeed him. With that spirit of restlessness which characterized the frontiersman, and as a rich joke more than anything else, they elected Bill. The high honor so unexpectedly thrust upon the old man broke him all up, but he at once rose to the dignity of the position and began to comb his hair daily. There were vague rumors floating about the settlement that he had taken to wearing socks. These slanderous rumors, however, he indignantly denied and even went so far as to make threats of heavy fines for contempt of court if they were persisted in. His knowledge of law and the duties of his position was limited; in fact, he did not know the difference between a writ of replevin and an act of congress, and couldn't distinguish a peace warrant from the ten commandments, but he assumed the responsibility fearlessly and smiled benignly when he was addressed as "Judge." He determined to do business from the start and with the aid of a brush and a pine board the space above his cabin door soon bore the inscription.

JUDGE MCGWIGIN.

A few days after his installation into office (which occurred while I was there) a young couple appeared before him to get

married. Bill was in a quandary. He had never seen the marriage ceremony performed, and, telling the candidates to be seated, he jumped on a horse and galloped to a ranch a half a mile distant to consult the only law book in that country, a small book entitled "Every man his own Lawyer." He searched its pages closely but could find nothing bearing upon the subject, and, in despair, he galloped back to town and consulted the hangers-on in the store (the only one). One of them, a recent arrival from Cheyenne, explained to the old man how he should conduct the ceremony. He listened attentively and, when the tenderfoot had concluded his explanation, he said:

"Say, young feller, you just hop over there an' splice 'em and I'll give you \$5 for the job."

"But that wouldn't be legal, Uncle Billy. I am not an officer and have no authority to perform a marriage ceremony."

"Blast the authority! You jist bulge ahead an' marry 'em an' this court'll approve the perceeding and nobody's goin' ter kick. You can marry 'em good enough for all practical purposes. Just hop over thar an' cut loose an' I'll make it a twenty."

The young man flatly refused, and Billy determined to worry through the embarrassing affair as best he could. He started for his office and the crowd followed to see the fun. Bidding the couple to stand before him, he said: "Dearly beloved citizens, these young folks now appear before you to indulge in the holiness of matrimony accordin' to scriptur' an' the laws of this court. If any of you knows any cause why they shouldn't make the play you want to squeal right at this stage of the game or corral yer jaws on the subject forevermore." No objection was heard and the justice continued: "Hol' up yer right han's."

The couple blushing obeyed. "Do you and each of you solemnly swear that you will marry each other in the presence of this court; that you will do the squar' thing by each other; that you will give everybody else the go-by and cling to each other through life till death calls upon you to cash in your earthly checks, an' that you will be to each other husband an' wife accordin' to the law an' the prophets an' the rules an' regulations of this honorable court in such cases made and provided, so help ye God?"

The couple so swore. Billy was sweating profusely over the exertion, and after scratching his head to collect his thoughts continued: "Then I, Bill McGwigin, justice of the peace, announce you as husband an' wife, now and forevermore, world without end, amen; and if the style don't suit you, you have the legal right to appeal to some other court within sixty days. Now light out, an' me an' the boys'll go an' drink yer health."

The couple seemed to be perfectly satisfied, and they walked away hand in hand, their sun-tanned faces wreathed in smiles of unmistakable happiness.

Billy had one more case and it was his last. In a neighboring settlement, twelve miles distant, a cowboy was arrested for stealing horses. He was an intimate friend of Bill's and the old man was almost thunderstruck when told that a constable was bringing the prisoner up the river on the charge of horse-stealing. When the prisoner arrived, Bill took him aside and said: "Tke, I couldn't think any more of you if you were my own boy, an' it breaks me all up to see you in this trouble. They tell me you are charged with horse-stealing."

"Yes, that's the charge, judge."

"To bad! too bad! an' are you guilty, Ike?"

"I guess I am, Judge. I'm afeard they can prove it on me, an' I was just about to get married."

"O, my boy, this is awful!"

He walked over to a window where he stood some time reflecting and then returned and said:

"Look here, boy, horsestealing is an ugly charge, an' I'd ruther see you janked up fur killin' somebody. I kin see only one way fur you to get out of it an' escape goin' to jail. I'll tell you what I'll do. You kin send down an' have the gal brought up here an' marry her, an' I'll kick the case outen court an' see that it's not rung in agin' durin' my administration."

Shortly after this he resigned, tore down his shingle, and wanted to lick every man that addressed him as judge.

Buffalo was the nearest place to my old ranch and the point at which we received and posted mail every three months. I had ridden to this place, which was out of my way, to get my mail. My final destination was Miles City, about 220 miles distant, and after resting nearly a week I resumed my journey. There were no railroads, so I was obliged to depend upon my ponies.

The second afternoon, just as the sun sank behind the outer rim of the plains, there arose between me and the bluish in the western sky a cloud of dust. It came nearer and nearer, and I sat on my pony quietly trying to discover what it was. I had consumed about four minutes in this occupation—it was still far away but was coming nearer and nearer, and the sky was getting darker, for which I was duly thankful. I turned my ponies toward a clump of scrub oak, behind which I halted. Ten minutes later a band of 20 or 30 Indians swept by me, about 50 yards to the right, passing out of sight in the growing gloom. It was a little incident, but it might have been a tragedy. They were a band that had escaped from the reservation situated about 150 miles northwest in the Big Horn mountains, and were ready for any kind of deviltry. As they were headed in the direction I was going, I decided to camp for the night. I tethered the ponies and lay down behind a rock. I slept well and awoke with pleasant expectations. I have noticed that one does usually have pleasant expectations just before disappointments. When I was well awake I looked over the rock to see whether my ponies looked as pleasantly expectant as I felt. My curiosity was not satisfied, simply because the ponies were not there. I sprang up in a hurry and looked all around. They could not be playing hide and seek with me, because there was nothing behind which to hide, and on all the great expanse of plain there was no pony in sight. Coming out of the eastern horizon, however, was a herd of cattle. They were so far away that I could not distinguish one animal from another, and I fancied that maybe my ponies had grown lonesome and sought their company. I didn't fancy seeking their company in search of them myself. These half-wild cattle of the plains are dangerous to men on foot. They evidently regard him as of a different species from a man on horseback and do not hesitate to attack him. There was nothing else to do, however. The herds would shortly spread all over the plains to graze, and I should be no safer to stay where I was than to go where they were. So I started.

As the morning advanced, other herds seemed to come from every point of the horizon, scattering out until the whole plain was mottled with the formidable horned beasts. I was beginning to congratulate myself on the fact that they did not seem to observe me. I was making straight for what appeared, at that distance, to be the dried up bed of a shallow river. On the banks stood a solitary scrub oak tree and a short distance away lay a huge pile of debris and underbrush, probably thrown up by the river during a century of springs when the water was high. I began to hope my ponies might be there. A little later I was sure of it and espied them grazing peacefully far down the bed of the stream. Just at that moment I heard an angry bellow not far from me. I turned and there stood a great red bull pawing the earth and tossing his long horns. I did not wait to offer an explanation of my own inoffensive intentions, but made straight for that scrub oak. The bull made straight for me. I was up the tree in a twinkling. The bull stood down below glaring at me. When he tired of that, he pawed the earth and dug up the sand

with his horns, roaring ferociously the while. He kept up this performance for two or three hours. At the end of that time he wandered off to the pile of debris and began goring his horns into that. Then a queer thing happened—queer things do happen sometimes, even in Montana. A great cinnamon bear sprang from beneath the underbrush and, before I could believe my eyes, the bull and bear charged each other fiercely. They were both fine specimens of their kind and were well matched. The bull repeatedly gored the bear, and the bear always made for the throat of the bull, and it seemed with good effect. At the end of half an hour both animals lay on the ground kicking their last feeble kicks. The rest of the herd had watched the battle with interest. At the end of the battle they sniffed the corpses rather suspiciously, and then, throwing their tails in the air, turned and galloped over the plain with a unanimous bellow. I got off my perch and went in search of my ponies which were again out of sight. I found them, however, without difficulty and resumed my journey with grave misgivings about the location and doings of the band of cut-throat Indians.

I had seen-sawed across the country and struck the old trail leading from my old ranch to Miles City. I was about 75 miles north of it and about 100 from Miles City. I was very familiar with the country and about 20 miles farther on the divide of the Big-Horn Mountains commenced. A short distance from the mouth of the divide was a beautiful little valley. A German, named Schmidt, and his wife had located there, and I expected to spend a day there and take another rest-up.

Upon ascending a hill a short distance from the valley I dismounted and peered over. I saw at a glance that there was something wrong. Smoke was ascending but looking more carefully I made out a band of cowboys who seemed very excited. Among them I recognized some old acquaintances. I mounted and soon joined them. Poor Schmidt and his wife lay dead and scalped. The house and out-buildings were smoldering in ruins. Those devilish Indians had done their bloody work. They caught poor Schmidt off his guard, probably at daybreak.

Among the cowboys (there were fifteen of them) was Bill Kettledrum. He was an old Indian fighter and well up in Indian warfare. Looking at the body of poor Schmidt, "It's Yellow Dog's band," said Bill. "I heard he was off the reserve. He's the most villainous of all the sub-chiefs. But his time has come! I know exactly where to find him and we've some old scores to settle."

"What's to be done, Bill," said I.

"Nothing, except to wipe out these red devils."

Every one of the party begged to form some part of the avengers, but Bill selected those whom he knew to be the most expert with a rifle and revolver, including myself. In five minutes we were mounted and ready to start. Before leaving, Bill said to those in charge of the extra ponies: "Form corral right here, Dave, and don't budge till we come back. Bury these poor people decently as you can."

There was no difficulty whatever in following the Indian trail, which led straight toward the mountains; Bill said we would find the band encamped in a canyon not 10 miles from where we then were. "We must time it so as to get within a half a mile of the place shortly after dark," he added. "Then we'll dismount and creep up on foot. Most likely the reds will be holding a big scalp dance over their morning's work. As between rifle and revolver, not one of the murdering dogs should get away."

Keeping to the trail so long as daylight lasted and afterwards guided through the foothills by Bill's intimate knowledge of the locality, we never halted until an hour after dark. Then we hid our horses in a dense grove of quaking aspens. "Now," said Bill, "we are about 800 yards from the canyon. The redskins are there, just as I expected, and are getting ready for the dance. I can hear a whoop now and then quite plainly. (Not another one of us could detect the slightest break in the dead stillness of the summer night). From this out we must sneak along quietly as cats. I'll take the lead and you must follow me in single file. When we get properly placed," said Bill, "don't, whatever you see, fire until I give the word. Then shoot all together, and let every bullet tell. Whether the reds break and run at our rifle volley, follow it, quick as lightning, by two or three revolver rounds, for it won't do to let

(Continued on page 484).

Sir Muskrat, King of The Silent Place.

By Hattie Washburn.

LONELY and secluded in the heart of the Coteaus, the slough lay silent in the chill, relentless grip of winter. The rustle of the cat-tail rushes protruding from the surface, the soft hum of the frozen snow which the fierce blast scurried across the glaring ice, the clear notes birds wafted downward from time to time as they passed in hurried flight, seemed to mark rather than break the great silence.

In summer the slough was a scene of life and animation, a place where the songs of birds were heard, the chorus of frogs and salamanders and the incessant hum of myriad insects. But in winter it was a place where the silence dwelt, undisturbed. Day after day, no wild bird rested there. Night after night no prowler of the plain marked the soft snow along the shore with its tracks. It seemed as though stern winter had banished or frozen into endless quiet every creature that had helped to make the slough a place of life and happiness, and had given the reign of that realm to his offspring, the silence.

The slough was as like many another in the Coteaus as the low hills surrounding it or the rocks thickly studding them were like one another. Yet throughout the length and breadth of that range of hills, no other slough sheltered so powerful and valiant a muskrat as did the one of which I write. Many a season of warmth and plenty, many a time of cold and silence, had added to his strength and size, to his experience and power, and to the wonderful beauty of his coat, until he was indeed a king among muskrats.

As many a human ruler has held his life in jeopardy because of the emblems of office which he wore, so the king muskrat was ever in danger because of the beautiful coat with which nature had clothed him. A foot disfigured by two missing toes, showed how narrow had once been his escape, as the age and beauty of his coat showed how great had been his cunning in eluding traps set for his capture.

Beneath the ice of the lonely slough was the king muskrat's realm. There he and his subjects lived in peace, plenty and contentment. Many were the huts they had built during the summer when they labored with all the diligence of their near relatives, the beavers. Many were the holes tunneling the banks of the slough where the muskrats might find refuge if all else failed. Many the delicacies which the slough afforded—juicy roots, soft green aquatic plants, insects lying dormant in the muddy bottom, and if all other resources should be exhausted, even the huts might be available as food for the builders.

Thus the muskrats might have continued to live in contentment beneath the ice, and indifferent to the reign of the silence above them, had that silence remained unbroken.

One day footsteps were heard screaming over the frozen snow, and the ice that bound the slough shook beneath the thunderous tread of a man. The intruder chopped openings through the walls of the huts and set traps in the muskrat's dwellings and in their airholes. The muskrats' days of peace were over and it seemed that the old king, profiting by his experience and cunning, eluded the numerous traps but to see his kingdom dwindle to a few frightened subjects, who, having abandoned their huts, sought refuge in their holes in the bank of the slough.

Perhaps because it was the largest of them all and its thick walls promised the greatest resistance, the king's castle was the last of the muskrats' dwellings which the trapper despoiled. With quick, vigorous strokes, the man chopped through the walls which had cost the rodent so much labor. Rushes and coarse grass, interlaid with finer vegetation and closely packed with moss, made the dwelling secure from the fiercest blast that might sweep across the ice-bound slough. Undoubtedly the muskrats found their dwellings cosy, but comfort through such agency is beyond our ken. When at last the man opened the small chamber at the base of the huge mound, the strong odor of stagnant water, mingled with the stench of animal life in close confinement, burst forth and made the air about the hut offensive to human nostrils. The walls of the chamber were thickly coated with unclean ice. The floor was but a mass of drift between which and the walls of the hut; a slight opening appeared to the depths of the slough.

Long after the trapper had left the slough and the silence again reclaimed its realm, the old king left his hole in the bank and, diving into the deep, cold wat-

er, arose to the doorway of his castle. Something warned the wise old rodent that all was not well there. With sensitive nostrils nearly protruding from the water, he sniffed the air long and cautiously, fearing to enter the chamber, yet loth to retreat.

Something rustled the rushes in the walls of the hut; a slight opening appeared through which the faintest ray of moon-

light entered the icy chamber beneath which the old king watched and smelled and listened. Something else was entering the hut through the opening which the trapper had made and loosely covered—a long, lithe, dark form which shut out the moonlight and filled the mind of the valiant old ruler with abject terror.

There was a quick agitation of the water, which set the floor of the cham-

ber in motion, as Sir Muskrat turned and dived to the farthest depths of the slough, nor paused until, fear having given speed and strength to his limbs, he huddled shudderingly in the remotest recess of his burrow in the bank.

The next morning the delighted trapper found a mink in the trap he had set in the old king's castle. Maddened at seeing his coveted prey escape, the muskela had made a lithe, desperate plunge after the fleeing rodent, when the strong trap caught and held him securely. Thus had the king muskrat, all unwittingly, saved his kingdom from the ravages of the long, brown terror, who was as relentless as the cold, and far more skillful and cunning in the pursuit of rodents, yet as cruel as the man who had intruded upon the muskrats' domain and broken the great silence.

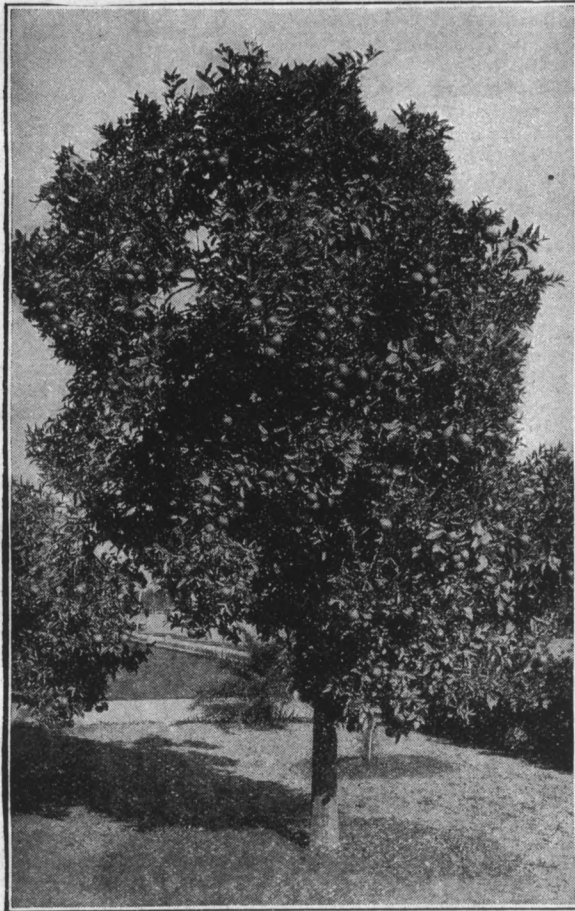
Perhaps, satisfied with so valuable a trophy as the mink's fur, or discouraged because a few more attempts failed to bring any reward, the man betook himself and his cruel instruments of torture elsewhere and disturbed the old king and his subjects no more. Again the silence reigned over the secluded slough and the muskrats, reassured, resumed their former modes of living. At length the silence was broken by harbingers of spring. Meadow larks piped gaily on the hills, blackbirds revisited the slough where they had lived the previous summer, ducks and geese, passing over, circled downward to the open water, sandpipers foraged along the margin and all joyously proclaimed the advent of nature's fairest daughter, the ever-welcome spring. The winds were warm once more and soon freed the slough from its icy fetters. The muskrats joined in the joyous activity of the season; busily they toiled, or sported happily in their native waters.

Thus they might have spent the entire season until the winter silence again held the slough torpid beneath its spell, had not a dire calamity befallen the colony—a calamity worse even than the depredations of the trapper or the coming of one of that race abhorred by all rodents, the mustelas. The waters of their native slough began to fail them. Slowly, but steadily, the water line receded from the shore and one by one the muskrat huts were left on the dry land. Many of the muskrats, and other creatures that lived in the slough, migrated in search of other waters, and those to whom migration was impossible huddled in the rapidly narrowing pool in the center. The hot, dry winds swept across the parched earth and relentlessly drank up the stagnant water. They drew the last drop of moisture from the exposed slough bed, strewn with decaying vegetation and the dead bodies of the tiny creatures that had succumbed to the terrible ordeal. The mud dried into a hard crust, cracked and curled up in the glaring heat of the sun like parchment. The drought was silencing the life of the slough as surely and far more cruelly than did the cold of winter.

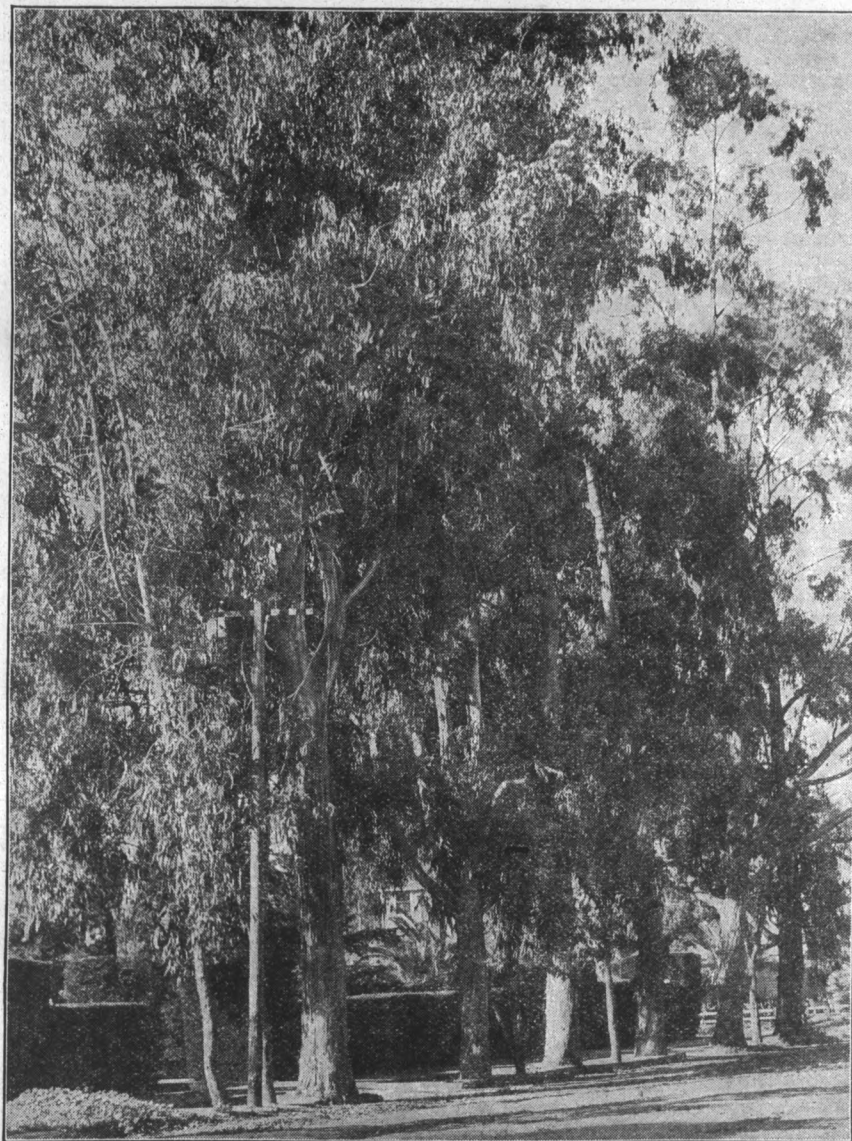
The king was the last of all the muskrats to abandon the place. The water had diminished to an unclean puddle, about which lay countless shells and dead creatures polluting the air, before the old monarch, one hot night, crossed the parched slough bed and, climbing the grass-grown hill, descended to a neighboring slough, where he hoped to find water and the means of making a new home. But there, as in his native slough, the waters had yielded to the drought, and abandoned muskrat huts, their holes and burrows and the marks of their sharp teeth, alone showed where they had lived and toiled. Across the slough lay a long pike which the muskrats had deeply tunneled. Many were the abandoned chambers the exile found which his kindred had made in that vast work of man, as innocently as they had tunneled the banks of the slough or built their huts of worthless rushes, yet they had worked great havoc with the pike, for teams and vehicles had broken through the undermined earth and made the road impassable.

From the ruined pike a road led over the crest of a hill, and that the muskrat followed, since it offered the easiest means of travel to a creature designed by nature to swim rather than walk. Laboriously the rodent traveled along the road, leaving a trail where he dragged his naked tail through the dry dust.

Long was the muskrat's migration as, weary, lonely, and thirsting for water, he persistently plodded on until he reached, at last, a small grove undergrown with shrubbery. There, perhaps, he might find rest and shelter, and that blessing



The Well-grown Orange Tree is California's Pride.



A Row of the Stately Eucalyptus—(See Trees of Southern California).



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for which he longed with the intensity of acute suffering—water.

Beneath a dense bush in the shrubbery Sir Muskrat found a collection of pure white objects which he devoured ravenously, breaking the shells and sucking out the contents with the skill and dispatch of long practice. How often had he feasted thus near his native slough, but never before had eggs tasted half so sweet and refreshing to the old rodent as that night when he despoiled the nest beneath the shrubbery.

Suddenly his joyous feasting was rudely disturbed as a long, slender nose was thrust curiously into the shrubbery. A quick, sharp bark proclaimed the collie's discovery and his challenge to battle. Flight would have been impossible had such been the valiant old muskrat's desire. He turned at bay, resolved to battle to the last.

The rustle of the shrubbery, the snapping of twigs, the growls of the combatants and the yelp of the dog which showed that the rodent's sharp teeth had not been used in vain, broke the stillness of the warm summer night. The sounds of battle, entering the open windows of the nearby dwelling, aroused the sleepers and lights quickly flashed from window to window. The door burst open and out rushed an excited household, hastily clad. Into the circle of light about the lantern his master carried, the collie bore his limp burden and laid it at his feet.

"Only a muskrat," they exclaimed in a chorus of various tones expressive of surprise and disgust.

Only a muskrat, yet he had fought a royal battle with a dog many times his size and sold his life as dearly as he could, as the scratches on the collie's face and the blood flowing from a wound on his nose, bore evidence.

Thus the king of the silent place had died, afar from the slough which, on that warm summer night, was nearly as silent as when he had reigned there in the depth of winter—not silenced by the spell of the cold, but by that of death and desertion. The old slough would again be the scene of life and joyous activity, but the old monarch who had ruled the silent place so long had found eternal silence.

LITTLE ESSAYS OF FACT AND FANCY.

BY CARL S. LOWDEN.

A Rolling Stone.

"Gathers no moss" did you say? Yes, that's just it. A stone that is rolling will not have any moss clinging to it.

Well, the stone is you and the moss is money. If you want money, and that is the natural craving, you mustn't roll.

Now the proverb doesn't mean that you are a stone, or that you are rolling over and over, perilously descending a hill. It means that you, as a person, must stay at home and not travel if you would gather moss.

I know a few rolling stones and I've always observed that as long as the stone continued to roll, that is do something, it had moss. But it always seemed to me that if the stone stopped too long in one neighborhood it was sure to lose some of its moss.

I know men that never work in one place a long time. They whistle and always appear to be happy, but of this world's goods they haven't a great amount. They are not particularly mossy.

On the other hand, I know men who have scarcely ever rolled out of their dooryard, and they have a lot of moss, but they are not one whit happier than their rolling neighbor.

Some people say to themselves, "A rolling stone gathers no moss," and immediately decide never to roll, but they miss a lot of the joy of this world. They want the moss, and rolling is fatal, they think.

There are others, but their number is rather small, who say: "I'm not sure about that. If I roll I'll always be seeing something new. Rolling doesn't have much to do with the gathering of the moss anyway. It's the man and his ability that counts—and there is always room at the top!"

Rich men, you will find, have always rolled till they got somewhere. They had to get some place, and so they settled down and gathered moss as they never had before.

The truth about it is that a rolling stone can gather moss all right, but it is hard to keep it. In comparison, the stone that doesn't roll can save the moss much easier.

But which stone gets the most enjoyment out of the gathering, and which

gets the greatest benefits? The answer to this question is the "rolling stone."

By mere force of circumstances a man with a family cannot roll very much, and in fact has no business to roll very much. If he does the moss will probably be a small quantity.

It is untrue that a rolling stone does not gather moss; however, generally speaking, the quiet, still stone gathers more moss, but with less enjoyment and less benefit.

THE ROMANTIC LIFE OF HERBERT FURLONG.

(Continued from page 482).

them know how few we are till we've thinned them out a little."

Stealing through the shadows, noiselessly as ghosts, we had not gone far when even the dullest ears among us could hear the exultant yells and fierce war cries of the savages, which, gradually growing more plainly audible as we advanced, at last rose to a very pandemonium of hellish discord. We could occasionally see darting tongues of flame from the recklessly fed dance fire.

Spreading out abreast of each other, now, with shoulders almost touching, we crept on and on until we had, totally unobserved, gained the inner edge of the grove, no more than 30 yards from the howling, leaping crew of, in all, 38 Indians. To avoid the chance of more than one of us firing at the same man it was arranged that each marksman should, whenever the Indians were favorably placed, count them from right to left and shoot at the one corresponding to his own position in our line, though, wherever Yellow Dog might be at the moment of our first volley, Bill himself was to bring him down.

Completely concealed by the thick shrubbery, which, in contrast with the lighted space beyond, was black as pitch, we lay for some time watching the wild orgies of the war-painted fiends. But our opportunity came at last, when, as part of the ceremony the braves formed themselves into a line between us and the fire. The chief triumphantly waved his ghastly trophies and began a studied harangue. Then, gently, cautiously and without disturbing leaf or twig, each one of us covered his man and at Bill's single word "Now," twelve streaks of vivid flame darted from our rifles and twelve bullets sped on their avenging mission. So complete, so overwhelming, was the surprise, so utter the Indians' panic that not until the three volleys had laid them nearly all low did the one survivor start to run, when he disappeared as if by magic. The next moment we came up and what few of the devils were still alive were soon dispatched. Staying no longer than was necessary to destroy everything connected with the band, we gathered in their ponies and rode swiftly back to our corral, which we reached shortly after midnight.

This cow-boy band were a brave lot. There was not one under 40 years of age. They had rather fight than eat. As big hearted as the steers they roped, there was not one among them, when we parted from the sad scene the next day, but shed tears.

I started for Miles City and they to the cattle country for the spring roundup. I never saw or heard of them again. That evening late I came to a big rise on the plain. Looking down into the valley I saw a very large tent surrounded with horses, wagons, men and women. It was a colony of home-seekers. They were glad to see me, as I had come from the direction in which they were going. Here another sad scene occurred—I sold my ponies, accepting a lift to Miles City on a wagon that was going there for provisions.

WINTER.

BY Z. I. DAVIS.

Hurrah! for winter now draws near. His signs are up, his scouts are here. The clouds sift down their flakes of snow. Quite soft and gentle, large and slow. Put on your mitts and furry cap. Now Mistress Woodchuck takes her nap. The blue-jay, squirrel and chickadee are living in the tall spruce tree. Each in his own way blithely sings, And welcomes all that winter brings. The frogs shut eyes and mouth up tight To sleep away a long, good night. The wind-swept earth is white and clean, For not a spot of dirt is seen. The flower children catch no cold. Tucked underneath the snow's thick fold. Hark! how the merry sleigh-bells ring. What fun the months of winter bring. If you are good and full of cheer, It is the best time of the year.

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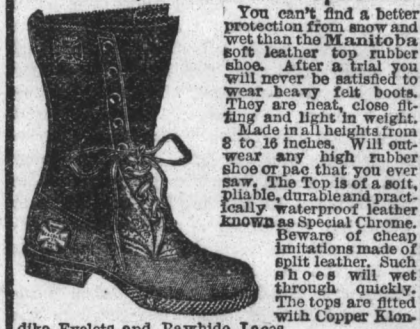
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A DREAM OF HOME.

BY L. L. DE BRA.

Last night while others around me slept,
And the stars shed their silvery rays,
In memory's gallery halls I saw
A picture of bye-gone days.

I sat again in the old arm-chair,
In my home of the long ago;
The faces 'round 'bout the kitchen fire
Were lit by its cheerful glow.

My Mother's voice, too, I plainly heard,
And remorse in my sad heart burned;
She spoke of me, of her wandering boy,
Her boy who had not returned.

And there was Dad in his easy chair,
At his feet lay the "Village News;"
But sound was he in a snoreful sleep,
"A-takin' an evenin' snooze."

I saw my brother and sister, too.
We were happy and free from care;
And that we'd stay on the old farm home,
Was ever my Mother's prayer.

I heard the tick of the kitchen clock,
And I thrilled with a peaceful joy;
I heard the teakettle sing the song
I loved so well when a boy.

With apples, nuts, and pumpkin pie,
And a song of the golden grain,
Then what cared we for the howling wind,
The snow, or the driving rain.

The evening prayers, and then off to bed
For a dream of the hills and fields;
To sleep the sleep of a tired boy—
Oh God, what a rest that yields!

But now each morning I hear the tramp
Of an army of hurrying feet.
They struggle hard from the morn till
night,
And all for a crust to eat.

I'm weary now of the city's life,
And I'm tired of the city's din.
I'd now be glad if I'd hear Dad say:
"It's time to git up agin."

A SURPRISE GRANDPA.

BY DAISY W. FIELD.

"Papa got a letter from Grandpa this morning," remarked Reggy, as he and Brian dug for bait in the old lot behind the barn. "He's coming to spend the summer with us."

Brian's face fell, as he listlessly dragged a pinky-brown angleworm from its moist and crumbly lair. "That means the end of our fun," he commented, with a very unpleasant scowl.

"Why?" queried Reggy, who was two years younger, and leaned perhaps too entirely upon his elder brother's superior wisdom.

"Because all old folks are so—well—cranky, and full of notions, and nerves, and—things," vaguely. "We won't dare walk above a whisper up and down stairs, and he'll think we ought to sit around and read poky books on Sunday, and he'll call our Indian camp foolishness, and want pa to be stricter with us. See if I ain't right."

"I'm sorry," answered Reggy, slowly, and rather disappointedly, as he thoughtfully turned over another spadeful of the rich brown earth and poked tentatively with his toe. "We never had a real

behavior for a day or two, so resolved to be on theirs. Consequently, they crept up and down stairs, tiptoed through the hallway as if there was a funeral in the house, and never uttered a word at the table, save to request a helping of something to eat. Instead of playing games at night, in accordance with their usual custom, they studied assiduously, and when the first Sabbath came, settled themselves in the living-room to read the dullest books they could find.

Along about that time Grandpa Day began to get nervous—really nervous. He fidgeted around the room, and coughed, and looked out of the windows across the pretty, inviting meadow, to the creek

wear herself and everyone else out calling and pounding on their door nowadays—they found their grandfather in the kitchen, surrounded by fishing tackle. "Your father was going to have the corn finished today," he explained, cheerily, for he had not yet abandoned hope of waking up his lethargic grandsons, "but I begged off for you, and promised to help you tomorrow, so you could go fishing with me this morning."

There was no whooping nor tossing of hats. Sedately, the boys selected their rods and shouldered their ample lunch. That night they returned burdened with long strings of fish, Grandpa Day's being much the longest. The boys had been



The First Snow finds the Country Boy "Right on Deck."

beyond, that flowed between shady banks, and cleared his throat two or three times, before he finally blurted out—

"I say, boys, you don't always preserve this grave-yard demeanor, do you? It isn't good for growing boys to keep so still. What's the matter with taking a walk, this lovely morning?"

The lads, too surprised to answer, arose and fetched their hats. Presently the three were sauntering away toward the brook. Half an hour later the same trio sauntered lifelessly back. Grandpa Day shook his grizzled head, behind their backs, and wrinkled up his genial brows, wrestling with a problem new in his experience. They had had a walk, to be sure, but that was all. Except for exhausting their slender store of botanical knowledge in a few profound remarks, and answering his tentative questions with "yes, sir," and "no, sir," the little experiment had been a failure. There had been no wading in the creek, no searching for bird-nests, no climbing of trees, no spontaneity and boyish abandon such as he had hoped for. Surely something was radically wrong with these apparently healthy and intelligent grandsons of his. Could it be possible that they were always so abnormally good and—uninteresting?

Monday, the boys hoed weeds in the

on their good behavior all day, which meant they had sat on the bank, one on each side of their grandfather, poor puzzled old man, like mutes at a funeral.

A little weary, Grandpa Day passed the fish over to the cook and sat down under a shade tree to play with Rover, who seemed to him the only really living thing on the place.

That night he remarked to his son-in-law, as they went up to bed, "You've certainly got the quietest boys I ever saw." Mr. Lennan did not detect the dissatisfied, lonely note in the quiet voice, but took the speech as a compliment to his sons and therefore judiciously refrained from mentioning the fact that he was as much surprised by their model behavior as was his guest.

The next day Brian, unable to stand the strain any longer, suggested to his brother that they slip away to the Indian camp. There they were welcomed with shouts of glee, and within ten minutes the two model boys were transformed into wild savages.

It was well they did not see a pair of gray eyes, that had for once forgotten to twinkle, peering down at them from a heavily foliaged tree. Yes, it was Grandpa Day, who had discovered the Indian camp early that morning, and had lain in ambush to see just what would happen. His mouth fell open as he regarded the transformation of his sedate grandsons. Could these two yelling savages, with hastily painted features, ragged feather head-dresses, and outlandish, fringed garments, be the two prigs he had patiently endeavored to endure for the past two weeks?

"Where you been, all this time?" demanded a young chief, who had on an old red chenille portiere, a discarded plume, and a string of brass buttons.

"Aw, we been being good," responded Brian, burying his tomahawk in a soft, old, rotten stump. "Had to. Our grandpa's staying with us."

A light broke over the wrinkled, genial countenance in the tree above. The twinkle came back to the gray eyes, and Grandpa Day shook with silent laughter. The Indians below were forming a ring and preparing for a war-dance, before charging the enemy. Round and round they went, yelling and digging up the soft earth with their bare toes. Right in the midst of their wild carnival, while they were demanding the bloody scalps of the enemy in tones that would have sent cold chills down a timid listener's back, something happened. With a wild, Apache war-whoop, beside which their own yells were feeble and inexpressive, somebody dropped, apparently out of the sky, right into their midst. Their shrieks of surprise and dismay were real enough, and they fled as one man, seized by a panic. Glancing back, as soon as they had recovered from their scare, they saw only a very harmless-looking old man, rolling on the ground in convulsions of mirth. "Why—it's—Grandpa Day!" exclaimed Brian, and after that—

Well, the most popular member of the

Redmen's Band was Grandpa Day, who had seen, fought, and conquered real Indians besides having been taken captive twice by them. He could tell the most thrilling tales, all true, that ever occurred outside the gaudy covers of a dime novel.

And when the long visit was over, and the trunk strapped, and Grandpa Day's foot was on the step of the carriage that was to take him to the station, it was Brian who hugged him last and hardest, and begged, "Now, remember, Grandpa—next summer, sure. You promised, you know—and this has been the very jolliest summer I ever spent!"

A WIRE COTTON-REEL HOLDER.

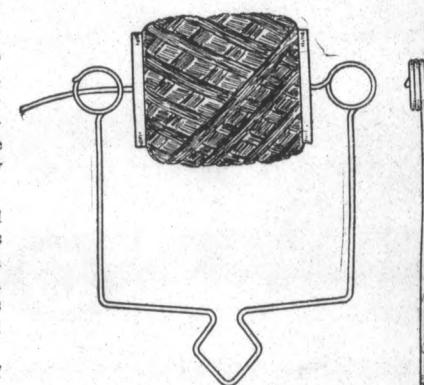
BY X. Y. Z.

This ingenious device can easily be made by any young man or boy who is in the least handy with tools. It can be made as a present for his mother, sister, or sweetheart, or used as a means for making a little pin money. They should easily sell for ten cents each, if made of steel wire, or twenty-five cents each, if made with a little more care, and with silver wire instead of steel.

To construct the holder, commence by forming the first loop, or catch (to the right in the sketch) by winding the wire around a lead pencil several times with a pair of pliers. Next bend the wire at right angles for a distance of three inches, when it is again bent at right angles for a distance of one inch. This marks the location of the attachment for an ordinary safety-pin, by which the holder is secured to the front of the dress when being used.

From this point the bending of the wire is repeated down to the hinge or second loop, which is formed in the same manner as the first—by using a lead pencil and pair of pliers.

The hinge being formed, the wire is again bent at right angles and cut off one inch beyond the first loop or catch, and given a slight bend upwards, as shown.



The point should not be sharp, but rounded off, and the whole nicely polished.

Each holder requires about fourteen or fifteen inches of wire, of medium thickness, either steel or silver.

The reel of sewing, or darning cotton is placed upon the pin of the holder, and the free end pressed down between the rings of the catch to hold it in place.

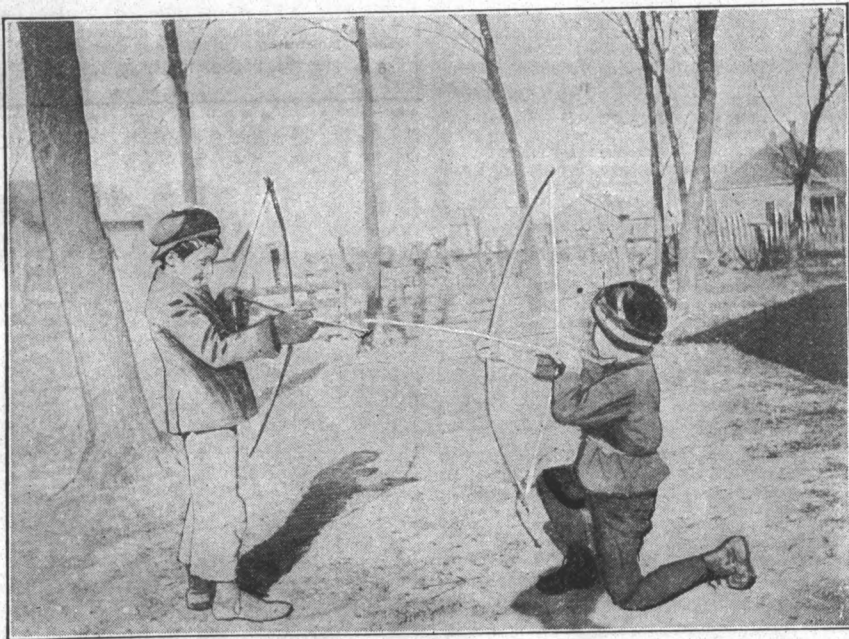
A BIBLICAL SCRAPBOOK.

BY FLOY SCHOONMAKER ARMSTRONG.

I found my clever young friend seated at a table that fairly groaned beneath its load of bibles, magazines and catalogues. In reply to my question, "And now, what?" she answered airily, "Scraps and scripture," the while sweeping a heap of papers from a chair near her that I might be seated and enlightened.

"You will please observe," said she, with the air of a professional juggler, "that we have here a bible, a magazine containing beautifully illustrated advertisements, a pair of scissors and a paste pot. I will now show you that with and from these few simple articles—plus a little patience and a pinch of originality—there can be made a novel and interesting scrapbook such as will delight the heart of your mother, your grandmother, your maiden aunt, your invalid friend, or your pastor's wife, all of whom are oversupplied with shawls, slippers, hand and sachet bags, handkerchief cases and "sich like" articles that are showered upon their defenseless heads at gift-times. Briefly and accurately speaking, I am making Biblical Scrapbooks."

During this breath-exhausting flow of words she had been laying out, for my inspection, several sheets of white unruled paper about 8x10 inches in size, each bearing a scriptural verse written with pen and ink, and appropriately illustrated with black and white pictures cut



Those "Quiet" Youngsters as Grandpa Saw them in the Indian Camp.

grandpa in the house before, and I'd rather looked forward to his visit."

"You'll be better pleased to be looking backward to it," replied Brian, with a sage nod, "before it's half over, take my word for it."

This was how matters stood when Grandpa Day was ushered into the Lennan household. The boys were almost disarmed by his bright, cheery countenance, and twinkling gray eyes, but they reflected that he would be on his best

corn all day without a murmur, ate their suppers in funereal silence, read a chapter or two in "Pilgrim's Progress," and tip-toed up to bed. Grandpa Day, who followed soberly, longed to let a yell out of his own stifled lungs and slide down the banisters. Anything to relieve this awful monotony—and two boys in the house!

Tuesday morning it looked like rain. When the boys arose at the sound of the breakfast bell—mother didn't have to

from advertisements. So neatly and skillfully were the pictures transferred from the magazines to the sheets of paper that they had the appearance of having been printed thereon.

One sheet bore the verse: They toll not, they spin not; and yet I say unto you, that Solomon in all his glory was not arrayed like one of these. St. Luke 12:27." This was illustrated by a graceful spray of lilies cut from an advertisement of a well known seed house.

Another sheet bore the command: "And thou shalt make the dishes thereof, and spoons thereof, and covers thereof * * * of pure gold thou shalt make them. Ex. 25:29." A group of artistic little spoons illustrated this.

A beautiful magazine print of the thorn-crowned head of Christ illustrated clothed Him with purple, and platted a sheet bearing the words: "And they crown of thorns, and put it about his head. St. Mark 15:17."

"One has no idea how many articles of ordinary, everyday use are mentioned in the bible until one looks for them," said my enthusiastic friend. "Nor can one imagine, until one sets about doing it, how beautifully these scriptural verses may be illustrated by utilizing the many artistic pictures that appear in the magazines and catalogues of today.

"Yes, this is heavy letter paper bought in tablet form, but I have made two books of artists' watercolor paper, and they were works of art. For every book I make a front cover of heavy white cardboard, and upon it print the words, "Biblical Scraps." Then I punch two round holes in the top of cover and sheets, and tie them together loosely with silk cord or narrow ribbon.

"My first book was made for an old lady who has almost everything in the way of great comforts and little luxuries. My offering found favor in her eyes. She took delight in showing the unique book to her friends, and even sent it about the village to invalids and old people who could not come to her. The last I heard of that initial creation of mine, it had been sent to gladden the eyes and hearts of the inmates of an Old Ladies' Home.

"If you are at a loss to know what to get or make for certain hard-to-select presents for friends—Go, and do thou likewise. St. Luke 10:37."

WHY THE BOYS LEAVE THE FARM.

BY A BOY.

During the last few years I have read several articles on "How to keep the boys on the farm," but I do not remember of ever having seen the reason why they leave the farm. Thinking that perhaps it would interest some of the readers of this paper I will give my views with the hopes that more will follow my example. One of the principal reasons undoubtedly is the report of the high wages paid in cities, but although this is a great factor it is not the only one. On many farms the boy is called at 4:00 o'clock or 4:30 a. m., to attend to the chores, and is expected to be in the field at 6:00 o'clock, work until 11:45 a. m., and go back to work at 1:00 p. m., and sometimes in haying and harvest he works until dark, having the chores to do afterwards. Of course, the farmer usually helps, but if a boy works from 4:30 a. m., to 9:00 p. m., he is likely to get the opinion that farm life is all work and no play. In many localities the lack of sociability has to be considered although the telephone has done much to remedy it. Sometimes if the boy asks permission to go to some of the neighbors he is asked such questions as, "What do you want to go there for," or is told that it is almost bedtime, but if he does go he is told not to stay later than ten o'clock. If he asks for the use of a horse he is usually told to take "Old Jack," and naturally gets the impression that the others are to good for him to use, or he may get such an answer as this, "When I was a boy I had to go on foot." Then again, he may ask for money to attend a social or some entertainment, but is told that there is no money available, and although there may be plenty later in the season he gets the impression that farming does not pay.

If you were asked the question, "Why do you send your children to school," you would probably answer, "to learn," you hire a teacher so they will learn faster and yet you neglect to do your part of the teaching. You may say you can manage your farm without the boys' help, but it is for his benefit, and indirectly your own, to get him interested. Talk with him about the farm management, ask his opinion on various subjects and if he is in error show him where the error is. Give him a colt, calf or something

Free Premiums Offered

In addition to the offers on another page.

These offers not good after January 1, 1911.

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It might take a day or two to look the subscriber's order up and it would be impossible to send the premium merely on a request. While we give them away, they cost money and we must follow good business principles. On the other hand, should a premium have been ordered and not sent we will immediately investigate and learn if it has been mailed, or if a premium is not as represented we will make it right. All the premiums are not mailed from our office but from the factory. We have no way of knowing if such are always as we describe them, but we will make it right. We take every precaution in packing and mailing premiums, and will not be responsible if they are miscarried or broken.

Premiums will in no case be sent unless order accompanies subscription order. It will not be necessary for any person to write us that they sent in their subscription order before and wish a premium now. No attention will be paid to it as it would require an endless amount of work to look up the order, etc.

Class A.

No. 101, Double Purse.—Leather lined, blocked and welted, with double pockets. By mail.

No. 102, Bill Fold and Coin Purse.—One pocket for coins and separate fold for bills. By mail.

No. 106—Bill Book.—Black seal grained book with four pockets. By mail.

No. 108—Rolled Gold Stick Pin.—Roman finish. By mail.

No. 109—Pen Knife.—Two razor steel blades with imitation pearl handle. By mail.

No. 111—Tape Measure.—Nickel plated metal case with spring winding device. By mail.

No. 113—Magnifying or Seed Glass.—Use it to examine seeds, insects, or fungous pests. By mail.

No. 114—Double Swing Razor Strop.—Canvas for sharpening and leather for finishing. By mail.

No. 115—Sta-Fast Shaving Brush.—Ebonoid black handle with bristles securely clamped. By mail.

No. 117—Brass Case Compass.—Pocket size, one inch in diameter. By mail.

No. 118—Ropp's Commercial Calculator.—Valuable information for farmers. Revised pocket edition. By mail.

No. 120—Dominoes.—Double six set, black with white spots. By mail.

No. 121—Game of Authors.—A pocket edition of this ever popular game. By mail.

No. 124—One Silver-Plated Milk-Tube.—For sore teats. Three lengths, 2½, 3 or 3½ inches. Mention size. By mail.

No. 125—Teat Plug for hard milking cows or leaky teats. By mail.

No. 127—Farmer's Calculator.—Veterinary advice alone makes this valuable Book of farm record. By mail.

No. 128—A Stamping and Printing Set.—Type is ½ inch high, in outline. Eight colors of paints and brush. By mail.

No. 132—Composition Whetstone.—Fast cutting for all kinds of knives, scythes, etc. By mail.

No. 137—Fountain Pen.—Hard rubber, fancy chased barrel with two gold plated points. By mail.

No. 140—Hohner Marine Band Harmonica.—Highest grade; 10 single holes, 20 reeds, two brass plates. By mail.

No. 144—Magic Ruffler.—For any sewing machine. Slips on the foot in a minute's time. Gathers, shirs or puffs all kinds of goods. By mail.

No. 145—Darnier for Sewing Machines.—Fits any sewing machine. Darns stockings, towels, underwear, making a smooth even darn. By mail.

No. 146—Post Card Album.—Holds 100 cards. It is 8½ inches wide by 9½ inches high. By mail.

No. 148—Gape Worm Extractor.—For removing gape worms from young chicks. By mail.

No. 152—Carpenter's 3-ft. Folding Rule.—With metal bound, spring joints, holding it rigidly in position. By mail.

No. 155—Roger's Nickel Silver Teaspoons.—Genuine silver nickel teaspoons. Solid metal. No plating to wear off. Heavy weight. By mail.

No. 157—Perfection Cherry Seeder.—Stems and seeds at the same time. Does the work quickly and better than by hand. By mail.

No. 158—Silver Plated Napkin Ring.—Satin finish with fancy engraving. By mail.

No. 159—Patent Tension Shears.—Eight inches long, with patent adjustable spring bolt. Prevents the blades from spreading. By mail.

No. 160—Watch Fob.—Oxidized silver finish on hard white metal base. Black strap with a nickel buckle. By mail.

No. 161—Tobacco Pouch.—All leather with drawn strings and button fasteners. Will hold a good supply of tobacco. By mail.

No. 162—Salt and Pepper Shakers.—These are silver plated on a nickel silver base, and will give good service. By mail.

No. 163—Duplex Poultry Marker.—For marking poultry by perforating the web of the foot. By mail.

No. 164—Cut Up Puzzle Map of North America.—Map is cut into irregular size and shape pieces which puzzles the children to get it together. By mail.

No. 166—New Reference Wall Chart.—Including world map and map of Michi-

gan and many other attractive features. By mail.

No. 167—Rough and Ready Knife.—Two razor steel blades, ebony handle, strong and substantial. By mail.

No. 184—50 Beautiful Post Cards of landscapes, flowers with mottoes, pretty girls. By mail.

No. 185—50 Christmas and New Year Post Cards. By mail.

No. 186—50 Tour of the World on Post Cards. By mail.

No. 190—50 Post Cards, "How Cook and Peary Discovered the North Pole."—By mail.

No. 192—"The Conquest of the North."—An authentic account of the finding of the North Pole by Peary and Cook. Biographies of each and short history of Arctic discovery. By mail.

No. 197—Farmer's Universal Account Book.—So simple and practical that every farmer can keep a complete record of his business. By mail.

No. 198—A Handsome Lace Scarf.—Nearly an exact reproduction of the genuine lace. Can be used as a cover or a small curtain for window. By mail.

No. 199—An Illustrated Story Book.—Something that will amuse and entertain the young folks. By mail.

Class B.

No. 103—Ladies' Hand Bag.—Black seal grain welted, moreen lined. Contains small coin purse. By mail.

No. 104—Extra Deep Coin Purse.—Black kid leather, 3-inch, 3-ball nickel frame. One pocket is the size of an ordinary coin purse. By mail.

No. 105—Squaw Bag.—Colored ooz leather with fringed end. Double strap handle. By mail.

No. 107—Ladies' Pocketbook.—Coin pocket, two extra pockets and card case pocket with a leather lining. By mail.

No. 123—Lock Stitch Sewing Awl.—With straight and curved needles. For harness, sack, canvas or any heavy sewing. By mail.

No. 130—Sugar Shell and Butter Knife.—Rogers. Solid nickel silver, no plating to wear off. By mail.

No. 131—Sanitary Dripless Strainer.—Made of polished copper. Quadruple silver plated in satin finish. By mail.

No. 134—Roman Gold Locket.—Holds one picture. Good quality. Guaranteed for five years. By mail.

No. 136—Style Ink Pencil.—Uses ink like a fountain pen but writes with a round point like a pencil. By mail.

No. 139—Rubber Holder Fountain Lead Pencil.—Extra leads are contained in the upper end of the barrel, which has a screw cap. By mail.

No. 143—Magic Tuckor.—Fits any sewing machine. Is easily adjusted. By mail.

No. 149—French Poultry Killing Knife.—Of best instrument steel. Finely tempered and ground. By mail.

No. 150—Child's Silver Plated Cup.—Good weight to give good service and strong handle to stand the thumps which such cups get. By mail.

No. 151—Rolled Gold Cross.—With stone setting for ladies' neck chain. By mail.

No. 153—Ladies' Gold Shell Ring.—Will wear and look like solid gold. Made of 14 kt. solid gold, drawn over composition base. By mail.

No. 154—Gold Shell Band Ring.—For ladies or gentlemen, same quality as the ladies' ring. By mail.

No. 168—Gentlemen's Strap Wallet.—Made of genuine sheep skin leather, one drop pocket for bills, and three card pockets. By mail.

No. 177—Bon-Bon Dish of Silver Plate.—Quadruple silver plate. Full gold lined, crimped sides. By mail.

No. 180—Cook Book.—A very convenient size with white oil cloth cover which can be washed clean when soiled. By mail.

No. 147—Rolled Gold Link Cuff Buttons.—Roman gold finish. By mail.

No. 170—Outfit to Cure Milk Fever.—The outfit will protect you against loss. Save Veterinarian fees, and if used once will be worth the price of a valuable cow. Sent for nine subscriptions. By express.

No. 171—Silver Bread Tray.—Best quality quadruple silver plate. Guaranteed for 10 years. Heavy diwork design. Sent for seven subscriptions. By express. If nine subscriptions are sent, we will prepay charges.

No. 172—Farmers' Knife.—Three razor steel blades, special castrating blade, stag handle, brass lined, German Silver tips and shield. Sent for five subscriptions. By mail.

No. 173—Wall Hat Rack.—The frame is made of pressed steel. Ormola gold finish baked on. Mirror in center, with six removable hooks. Sent for seven subscriptions. By express. If 11 subscriptions are sent we will prepay charges.

No. 174—Imported German Razor.—Best quality English razor steel. Ground by German grinders and imported by us. Sent for five subscriptions. By mail.

No. 175—Boy's Watch.—This is a good dependable watch and will last a long time, if not abused. Sent for only six subscriptions. By mail.

No. 176—Silver Berry Set.—These three pieces are quadruple silver plate, full gold lined and crimped sides. Sent for seven subscriptions. By express. If nine subscriptions are sent we will prepay charges.

No. 178—Kitchen Outfit.—A utensil for every purpose, and everything in its place. With good quality utensils. Sent for six subscriptions. By express. If nine subscriptions are sent we will prepay charges.

No. 179—Moving Picture and Magic Lantern.—Machine stands 10½ inches high on a base 7x3½ inches. The body is made of polished blue steel, fitted with oil lamp and glass chimney. Sent for seven subscriptions. By express.

No. 181—Toilet Clippers.—Best quality, ½-inch cut, concealed spring. Sent for five subscriptions. By mail.

No. 182—Fancy Gift Clock.—Reliable one-day movement, with alarm attachment. Given for eight subscriptions. By express. If 11 subscriptions are sent we will prepay charges.

No. 183—Post Card Album, 300 Cards.—Handsome black alligator grain paper cover. Title embossed in gold, reinforced binding. Stitched and stubbed to prevent bulging. Sent for five subscriptions. By express. If six subscriptions are sent, we prepay charges.

No. 194—Six Wildwood Teaspoons.—Reliance plate is made by the Oneida Community and every piece is guaranteed for ten years. It is for sale by all leading jewelers. Sent for \$2.18 with the Michigan Farmer for five years. By mail.

No. 195—Berry Spoon.—The same design and quality as the Wildwood teaspoons. Sent for \$2.18 with the Michigan Farmer for five years. By mail.

No. 200—Gasoline Blow Torch.—For any purpose where cheap, clean and intense heat is desired, either in hand work or bench. Free with four subscriptions to the Michigan Farmer. By mail.

No. 201—Combination Tool.—Can be used for ten different things. Very convenient, light and strong. Contains set of ten oil tempered, well finished, forged steel tools. Sent free for a club of three subscriptions. By mail.

For added premiums watch closely our paper each week.

PREMIUMS FOR CLUBS.

For each club of two subscriptions we will send you any one Class A premium.

For each club of three subscriptions we will send you any one Class B or any two Class A premiums.

For each club of four subscriptions we will send you one Class A and one Class B premium.

For each club of five subscriptions we will send you any two Class B or any three Class A premiums.

The subscribers will also get their choice of premiums with their subscriptions as given above.

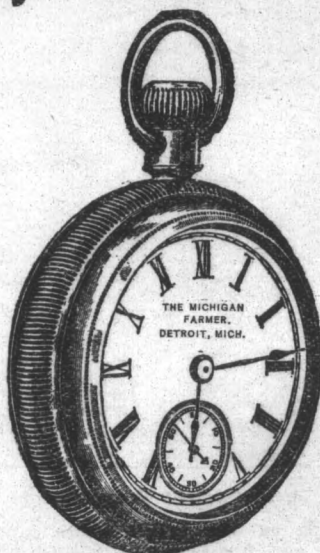
Your own subscription may be included in the club in which case you get premium with the subscription and also for the club.

Always mention Premium Number.

THE MICHIGAN FARMER.

Detroit, Michigan.

Boy's Watch Free



Every Boy Can Earn One in a Short Time.

Size 16, Nickel Open Face Case, Stem Wind and Set.

This is a good, dependable watch and will last for a long time. We will send anybody this watch, FREE, postage paid, who will send us 3 (either 1, 2, 3 or 5 year) subscriptions to the Michigan Farmer. Mention premium No. 175.

Special Premiums For Clubs.

for a pet and if it becomes absolutely necessary to dispose of it, give the boy credit for at least part of the valuation and do not let it be a case of "My sheep but father's money." I am myself in favor of early rising in the busy season although many farmers carry it to extremes, but perhaps that is preferable to working too late at night.

Some may think after reading this article that I think the farmer wholly at fault, but they will be mistaken, although I think that if the farmer would study this matter more closely he would have fewer reasons to wonder "Why the boy leaves the farm." Much more might be said along these lines and I would like to see some others give their reasons.

A CHRISTMAS SUGGESTION.

This is the season of the year when everybody is making plans for Christmas. Nor is it any easy task to decide upon a suitable gift for all of one's friends whom we would like to remember in this way. The first thing one generally does is to look over the assortment of holiday goods displayed in the shops and stores at this season of the year. But while suitable gifts may be selected from such assortments for some of our friends, the thing which generally impresses itself upon us is that we would like to present something more practical and useful, and which would, at the same time, be a constant reminder of the thoughtful regard of the donor. This suggestion is presented with the idea that it may be helpful in just such cases, since the idea would not be likely to suggest itself to the reader who is vainly casting about for some appropriate gift for a friend which would come up to the ideal above mentioned. Why not present them with a subscription to the Michigan Farmer? This would be a practical, useful and helpful gift, and it would be a constant reminder of the thoughtful regard of the giver. More than that, it would refresh their memory regarding that thoughtful remembrance each week during the year. What other gift of similar value would prove similarly useful and bring to the recipient fifty-two reminders of yourself during the year. If it is desired to present different members of the family with a similar gift, a selection can be made from our clubbing list which will be found on page 000 to the advantage of the giver, as our clubbing rates give subscribers for the Michigan Farmer the advantage of a considerable reduction in the regular subscription cost of the other publications offered in connection with the Michigan Farmer. The adoption of this suggestion will simplify the Christmas shopping, and prove greatly to the advantage of the recipient of any reader's Christmas compliments.

SHUT-IN TIME.

BY LALIA MITCHELL.

Hea' dat Norf win' blowin', chile.
Laik de wolves howl, on de plain;
Suah de night am gwin be wile
Wid de sleet again de pane.
Wintah's comin', comin' sho.
To dis dahk an' chilly clime.
But de fallin' ob de sno'
Brings de bressed shut-in time.

Mistah Fros' him brung him brush--
Paintin' pictures on de glass;
Hush now, Pickaninny, hush,
All de col' am gwin to pass.
So tonight jes' cuddle clos',
Dis ole stove am heatin' prime,
An yo' loves yo' Mammy mos'
In de bressed shut-in time.

Howl away, yo' shrouded storm,
We uns locked yo' out fo' suah.
An' we's settin' heah as wahn
'Sif yo' wasn't at de doah.
Bring de banjo, now dat's right,
Hea' dem strings laik joy-bells chime,
Suah de Lawd mus' sen' each night,
Ob de bressed shut-in time.

A Reader's Opinion.

Royal Oak, Mich., 11-20-'10.

Editors Michigan Farmer:
Dear Sirs:—This is not a business letter, but just a "Thank you" for the Thanksgiving number of your excellent paper.

The Farmer is always good and full of good, wholesome reading. But this number fairly excels, and as I think of the uplift and encouragement to better living that thousands of hearts will receive from this issue of your paper, I thank God that there are editors still living who can think, and lead others on occasion, to think of other things than the almighty dollar, (useful as that may be, and is, when not abused).

The Lincoln Proclamation and first page article must awaken in many hearts a profound sense of gratitude and thanksgiving, to say nothing of the excellence of your editorials and other articles concerning the festal occasion.

So here's to the Michigan Farmer. Long may it live and be an uplifting influence in the homes of the sons and daughters of "Michigan, My Michigan."

Yours sincerely, M. J. CARBY.

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We are now ready to send out the fifth edition of our large catalogue, number 79, of which copies are already in the hands of several million people. If you have not yet received a copy, hesitate no longer, but get one by return mail and be prepared to DO YOUR HOLIDAY SHOPPING AT ONCE. This is the book that quotes the lowest prices on everything you use, eat and wear. It posts you on what prices your dealers pay for everything they buy and enables you to buy as cheaply as they do. It gives wholesale prices on 125,000 articles, and shows illustrations of thousands of them. There is no other way to so correctly post yourself on modern merchandise, prices and methods as to consult the Montgomery Ward & Co. Catalogue. Its presence in your house will save you money. It will save the average family at least \$100.00 a year—some \$500.00. Five million people send for this price list yearly and use it as their buying guide. We want you to have one, too.

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For 39 years we have been buying all kinds of merchandise direct from the mills, the makers and the producers, and selling direct to the consumers without the usual expenses of middlemen. Ours is the original catalogue house. It is the oldest and most reliable. Our enormous business has been gained and held by underselling all others, treating customers fairly and observing the golden rule.

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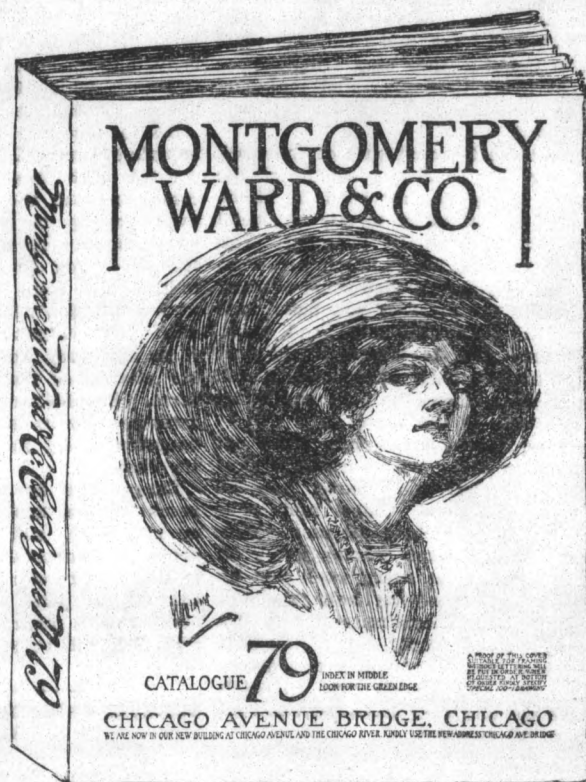
Its value is beyond comparison. Its profits are personal to you. We send it without charge and pay 28 cents postage on each copy, so anxious are we for everyone to have it. That we are so willing to pay for the book and for the cost of getting it to you should convince you that we believe in its message and its claim of money-saving to all.

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132



Montgomery Ward & Co.,

Gentlemen: Please send me a No. 79 Catalogue.

My Name _____

Postoffice _____

R. F. D. No. _____

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Clip this out, fill in the blanks and send to us to-day.

9

The President

If you want to make EVERY PENNY do its full duty when you buy shirts, buy

THE PRESIDENT GUARANTEED WORK SHIRT

and refuse to take any other. The price is the same, but the shirt is different from any 50c shirt you have ever worn. It's full measure and running over with durability, comfort and attractiveness, and it's GUARANTEED—a new shirt for every one that rips. At your dealer's. If he can't supply you send us his name, your collar size and 50c in stamps for sample shirt and book of new colorings.

The President Shirt Co., 14 Wyoming St., Baltimore, Md.

"All-in-One" RAZOR STROP.

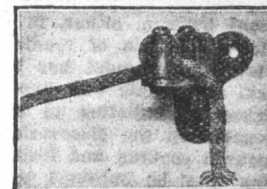


This strop is made from the finest horse-hide leather, tanned by special processes, then chemically treated with "all-in-one" solution. This preparation is so thoroughly incorporated in the leather that it is guaranteed not to peel, wear, scrape or wash off.

Any man can strop a razor as keen an edge as can the most expert barber. A few strokes on the sharpening side, followed by a like number on the finishing side does the trick. The lot we have purchased are "Extra Strong" and it requires but little stropping to bring a deadly dull blade to a hair splitting edge. This guaranteed strop FREE with a two, three or five-year subscription or with 18 months' subscription at \$1.00. Mention No. 211.

THE MICHIGAN FARMER, Detroit, Mich.

Don't Hang Yourself



Hang your clothes-lines, hammock and all other ropes on SURE GRIP. It never lets go. No knots to tie. An easy pull releases the rope. Mailed for 25c. Agents wanted. Department M.

HOOD MFG. Co., Boston, Mass.

ARE YOU RUPTURED



This truss has cured thousands. Why not you? Sold under an Ironclad Guarantee. The Truss that HOLDS and CURES ALL FORMS of HERNIA; for adult, youth and infant. Lady attendant in office. Consultation and examination free. Our form for self measurement has reduced ordering by mail to an exact science. Call or write for complete information. APPELEY TRUSS CO., 48 MONROE ST., GRAND RAPIDS, MICH.

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Woman and Her Needs

At Home and Elsewhere



A READING AND GOSSIPING CLUB.

Everyone who pauses long enough to think in these hurrying times is impressed with the growing spirit of unsociability. We have always thought of that spirit of aloofness as being a characteristic of the city, but in company with the telephone, rural delivery of mail and interurban cars it seems to have penetrated to the country. Farmers' wives speak of it and deplore it. They declare they do not have nearly such good times as they used to have, and then, like their sisters in the city, they stay a little more closely at home than ever and make no effort to warm the frosty air of their neighborhood.

Now that the heaviest part of the work is over for this year why could not the women of every neighborhood in Michigan make a real effort to stir up social life in their immediate vicinity? You have been working hard all summer. Possibly a few of you have had some outings, but probably the most of you have done nothing but stay at home and work. Isn't it time now to have a little fun? All work and no play makes Jack a dull boy, and logic shows us that the effect on Jack's wife is the same.

Merely as a suggestion, why could not the women in every neighborhood organize reading clubs? Of course, you all have your Farmers' Clubs and your Grange, but these include the men. Why couldn't the half dozen women living on adjoining farms meet every week just by themselves and spend an hour reading, and another hour gossiping and drinking tea? Such clubs would fill a two-fold want. They would provide social diversion and give the women time to catch up on the reading they have been obliged to neglect all summer.

Do not misunderstand me when I say "reading club." I do not mean a Shakespeare club or a Browning club or a club to study history or to do any of the highly improving but deadly uninteresting things usually attempted by women's literary clubs. Instead, I think it would be a capital plan for the members to subscribe for one of the leading monthly magazines and have the articles on topics of the day read aloud and discussed. The magazine could pass around from member to member and each one could read the articles by herself, thus impressing the facts firmly in her mind. The fiction might be read aloud, too, occasionally, but topics of world interest should have first place. Thus our busy country women could have a chance to keep informed upon what is going on in the world and feel more strongly their duty as citizens and the mothers of voters.

I should not scorn the humble government bulletin, either, in making out the club's schedule of reading. The United States government has been to a great deal of trouble and expense getting up scores of bulletins to enlighten housekeepers on the discoveries of science as regards cooking and foods. These bulletins may be obtained by application to the department of publicity at Washington and I can testify as to the benefit to be derived from a study of them. Spend one week every month in studying foods, poisons, germs, gardening, and the countless other subjects Uncle Sam has looked into for his people.

At least ten minutes of every meeting ought to be spent in discussing the news of the day as told in the daily papers. Women ought to cultivate the newspaper habit for there is no other one thing which so tellingly convinces one of the largeness of the world and the smallness of one's own little corner. The newspaper broadens one's horizon as nothing else can do. But don't focus your attention on the murders, divorces, and similar scandals. Read politics, discoveries in science, the articles which tell what other women are doing in other corners of the globe, and realize when you read that

you are reading of real human beings like yourself, who live in the same world with you, and not of mythical beings who dwell in a different atmosphere altogether.

Fiction might occupy the center of the stage for 15 minutes each meeting, not a second longer. Select your own book, one of the old standard novels your mothers read or one of the new books which you would not let your daughters look into, just as the club decides for itself. A little fiction is a good thing for everybody, but it should never occupy the entire time which individuals or clubs can devote to reading.

Go to the club with the sole idea of enjoying yourself. Let readers be appointed each week for the meeting to come and let the other members take their sewing or fancywork. Christmas presents may be made for a half dozen friends if you devote two hours weekly to the work from now to Christmas day. Above all, don't be snobbish when you start your neighborhood gathering. Let it be for every woman without regard to her clothes or the size of her husband's farm. Snobbishness is the bane of the average city woman's club. Let it be conspicuous by its absence in the country clubs.

Suggestions as to suitable magazines, recent fiction, books on science, domestic or otherwise, will gladly be given any group of women who think highly enough of this idea to start a club. In short, advice on any point which may come up in making up a program or carrying out the club idea will be yours for the asking.

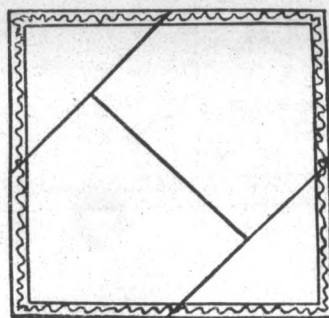
DEBORAH.

SLEEVE SHIELDS AS A CHRISTMAS GIFT.

BY PEARLE WHITE M'COWAN.

This pair of sleeve shields are equally appropriate for the office girl, or the housewife who does not always wish to change her light waist or don a long sleeved apron when doing housework. They are especially dainty made from light fancy handkerchiefs and very serviceable if dark blue or red bandannas are used.

The lines in Fig. A. show how the handkerchief should be cut. The smaller



pieces are then placed over the lower edges of the larger ones as shown in Fig. B and cut again as indicated by the dotted lines in Fig. B. These lower edges are then sewed together and the whole of each is folded as in Fig. C, and the sides sewed together. Probably the neatest way to do this is to sew a narrow seam first upon the right side, then turn and sew the ordinary width seam upon the wrong side. This leaves no rough edges and gives a finished appearance. They may be slipped on over any dress sleeve and the point of each shield is pinned just above the elbow with a small safety pin.

THE INVALID'S GIFTS.

BY GENEVA M. SEWELL.

Have you a dear invalid in your home or among your friends? Then surely you must remember her, especially at Christmas. Give something that will lighten and brighten the many weary

days she is a prisoner to bed or room or chair.

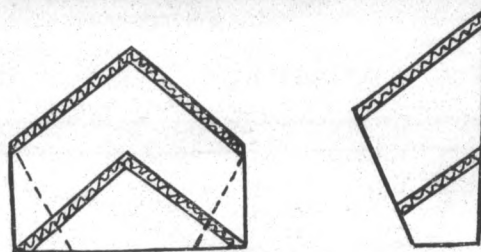
First, give a big bunch or wreath of holly tied with bright red ribbon. This will brighten many days for the invalid. If you cannot conveniently get the holly make a wreath of evergreen branches and tie with red ribbon.

Another nice gift is a bag to contain the manicure instruments that every invalid needs. Make it out of crash, cretonne, leather, or silk. Stencil, embroider or applique some simple design, run draw strings in at the top with a loop to hang to the back of the chair or by the bed so as to be easily reached when needed. A little pocket on the outside may contain the powder puff and box of powder, to be used for some little chafed place which might be allowed to irritate if some one had to ask for the powder. An invalid does not like to ask for everything, no matter how willingly the service is granted.

A postcard album must certainly be one of our invalid's gifts. This may be bought in cheap binding, and small size, so as not to tire the invalid, and covered with pretty cretonne or silkoline. Several small ones are to be preferred to one large one. Of course, the invalid's friends will surely all send a card on Christmas day. An invalid, either man or woman, will take much delight in arranging and re-arranging the cards in these albums, so there must be a bag provided to keep them in and a place by the chair or bed to hang the bag. Make it out of two 18-inch handkerchiefs, featherstitched together on the edge, then the center of the upper one cut out in a circle large enough to admit the books easily, faced with ribbon and a bright draw-string of ribbon or tape run in.

We will want still another bag, for our dear one. This will be to hold the handkerchief, needlebook, some thread, a little roll of work, a box of candy, or something to taste when everything else palls. This may be made from denim or some wash goods. Make by covering a circle of pasteboard and gathering the cloth to this, and running a draw-string in at the top.

A book holder will be a precious possession. Make of cretonne, denim or silkoline. Cut one strip $11\frac{1}{2} \times 18$ inches and



two others $11\frac{1}{2} \times 3\frac{1}{2}$. Hem these last along one side. Sew the $11\frac{1}{2}$ -inch edges of the small pieces to the corresponding edge of the large piece, and turn it over to form a pocket on each end to hold the back of the book. Bind all around with ribbon, slipping in a nine-inch length under the binding to use for a bookmark. Fasten ribbon to each of the two short sides. This forms a loop to put around the shoulders and hold the book in position when reading. Buttons and button-holes may be placed along the sides so that any sized book may be used.

A NECESSARY DUTY.

BY HILDA RICHMOND.

LIVING up to tradition may be a good or a bad thing, but if it be disastrous in its results it should be discarded no matter how precious and binding the tradition seems to be. Country hospitality at the present is largely governed by traditions handed down from

times when conditions were far different from what they are now, and wide awake fathers and mothers and sons and daughters everywhere in fine country homes are seeing the need of a revision of ideas along this line.

In the old days living was simpler and food supplies without the money value of the present, while conditions made it impossible for people to keep within access of hotels day by day, so that hospitality had to be practiced. Then, too, life was lonely in the country and every guest, if only a pack peddler, was eagerly welcomed, fed and lodged, and young and old heartily urged the chance wayfarer to come in and dine. We have discarded the spinning wheel, the scythe, the fire-place, the hand mill, the household loom and all the other things of pioneer days—all but the notion that every person who sets foot on the farm has a claim on our hospitality.

It is one of the necessary duties of the present age to revise the guest list, as a matter of self-protection, and educate farm and city people alike in the new doctrine that the country housekeeper has a right to invite whom she will and to entertain only those she chooses to invite. This sounds disagreeable, but it need not be so, for men, women and children are quick to see right and justice in all things, even the matter of entertaining uninvited guests.

Guests, invited and uninvited, are the means of sending many country boys and girls from home, and the sooner parents discard the time-worn tradition about asking people just because they happen to be about at meal time, or because they invite themselves, the sooner young people will remain on the farms. In some homes uninvited guests make Sunday one long nightmare, yet the burden must be patiently carried for the sake of the sacred idea of hospitality, in the minds of many good people. Summer brings not only extra work, but many pleasure seeking guests who never dream of giving anything more for their entertainment than "Be sure to come and see us," when the vacation, for them, is over, and even men selling machinery count on getting a good dinner for nothing in the country when they are out on business. It is no wonder progressive, sympathetic, home-loving fathers and mothers are beginning to think the time has come to draw the line between guests and persons merely seeking to be fed and lodged.

One of the most effective ways of discouraging uninvited guests is to serve the very simplest of simple meals when they drop in. A supper of bread and milk and a dinner of potatoes and bacon will speedily revise the list of people who come chiefly to be fed. There need be no diminution in cordiality, but a simple bill of fare will do the work. From being a handy place to stop for a delicious country dinner, the farm house will very soon sink to the level of a mere roadside mark for the impolite men and women, and the mistress of the house and her daughters will be able to enjoy their well-earned rest. Real friends can stand the test of even bread and milk, and be very glad to make the busy housekeeper no more trouble, so there will be no harm done. Another way is to persistently be absent on Sundays and other days when uninvited guests appear until they take the hint and wait for an invitation.

Many a girl who is now working in the city will say frankly that the burden of cooking and cleaning up after people who used her home as a sort of hotel, without hotel charges, caused her to make up her mind to leave. Seeing no other way out of the difficulty she fled from the scene, leaving her tired mother to struggle the best she may with the work. There are enough congenial people, young and old, who are well-bred enough to wait until they are invited to visit country homes for all social purposes, so there is no use in encouraging the other kind, who just because the country is still in the grip of the idea that hospitality demands cer-

tain things, they continue to enjoy good cooking and kindly treatment at the hands of the country people. It is the duty of all country people to revise the ideas about hospitality until they will suit the times and conditions now, instead of those of 40 or 50 years ago, for then the farm house will be a much pleasanter place to live.

A PERFECT FOOD. No. 30.

BY MRS. ALTA L. LITTELL.

A story is told of three men, a Frenchman, a Dutchman and an American, who were sentenced to die. The judge pronounced a novel form of execution. He gave each man his choice of any drink desired, telling the men they could have all of that drink they wished and at any hour of the day or night. The Frenchman chose coffee; the Dutchman chose chocolate, and the Yankee, the wise man, cried for milk. Of course, the Frenchman and the Dutchman soon passed away, while our beloved countryman lived to a ripe old age. Or at least so says the chronicler.

Suppose we were to be given our choice of any one food, what would we choose as best fitted to sustain life? Undoubtedly, if we think quickly enough, we would ask for the egg. Next to milk, eggs are the best of anything to keep us in good health as they contain all the food elements and in just the right proportion to make them a perfect food. The chemical composition shows protein, 14.9 per cent; fat, 10.6 per cent; mineral matter, 1 per cent, and water, 73.5 per cent. The white is almost pure albumen. The yolk contains albumen, fat and sulphur. This is a combination hard to digest by bilious folk, but instead of discarding eggs altogether on that account, such people would do better to drop just the yolks and eat the whites.

Of course, the farmer's wife never serves anything but fresh eggs on her table, and the city cook aims not to serve cold storage produce either. But unfortunately the woman in the city is often swindled. When you break your delicious newly laid eggs next time, drop a tear for your city cousin who breaks a "warranted strictly fresh egg" out of a 40-cent-a-dozen lot, and finds it to be of the vintage of 1909, possibly 1908. Of course, there are many ways to test eggs for freshness, as dropping them in water where the bad ones float, shaking them and listening for the sound which proclaims a stale egg, candling them, etc. But grocers never could give you the privilege of testing each egg, so what can you do? But the country woman is not so interested in testing for freshness as in ways of keeping the eggs fresh. Every woman has her own way of packing them. Some pack in salt and some in sawdust. Be sure to stand them small end down, and see that the eggs do not touch. Others coat with wax or paraffin, while still others dip in a preparation of liquid glass, silicate of sodium and water. Any method which excludes the air is good. The shell contains a great deal of water which evaporates quickly if left exposed, and the air then gets through the shell to the egg, causing decomposition.

If properly cooked, 94.8 per cent of the egg is incorporated into the body. It has been found that eggs are most digestible if not boiled, but simply cooked slowly in water at a temperature of 160 degrees. Put the eggs carefully in boiling water and set where the water will not boil nor be lowered in temperature for eight minutes if liked soft, three-quarters of an hour makes them hard. The white of the egg becomes tough and indigestible if boiled, while if cooked as described above it is firm, but tender and easy to digest. Frying gives the most indigestible result of any way of cooking, but eggs scrambled or in an omelet where the white and yolk are mixed, are easy to digest. Aside from their use as a food, eggs are used in countless ways. Where would be our cakes and cookies without them, to say nothing of custard and pumpkin pies, puddings, salad dressings, gems, etc. They serve a threefold purpose in cooking as they make the dish richer; thicken, and make it light. If you make a cake and use only the whites, the yolks may be kept by beating thoroughly and setting away in a cold place, or dropping in a dish of cold water. Unless you are sure you can use them next day, cook them through and serve in any way your mind suggests. One family is fond of sandwiches made from the boiled yolks rubbed into a paste and spread on bread.

If you make boiled coffee, never throw away your egg shells. Wash them thor-

oughly before breaking and save the shells to settle the coffee. The albumen which clings to the shell, not the shell itself, does the work.

THE USE OF EGG IN SETTling COFFEE.

BY ELLA E. ROCKWOOD.

In an ordinary coffee pot some settling agent is needed in order to have the liquid pour off clear and free from sediment. Egg is usually employed for this purpose.

But as commonly used I believe too much of it is put into the coffee at one time. In fact, after repeated experiments I have found that one-half the usual amount answers the purpose better than a larger quantity. The mass of cooked egg often found in the bottom of the pot would indicate this. Sometimes, too, particles of egg are poured out with the beverage when too much is used.

A method which will prove quite satisfactory and which makes one egg go as far as two is as follows: Beat one egg till light and foamy, add equal measure of cold water, one teaspoon of sugar and one-half teaspoon of salt. Cover, and set in a cool place. It will keep several days. Use one or more tablespoonfuls of this mixture stirred with the dry coffee, add cold water to sufficiently moisten, then pour on hot water and steep as usual. Some people believe too much egg detracts from the strength of the beverage and the practice of using a whole egg for six people is not followed so much now as it used to be among those who make good coffee.

Another method of settling which I have found to be good is to beat the egg, add a little cold water then pour the whole over a pound of ground coffee, dry. Stir until the egg and coffee are well blended, then put back in the can for use as required. The coffee will be merely moistened, not at all wet. Use no more egg when steeping the beverage, for none will be needed. Merely wet with cold water and steep as usual.

Coffee should be allowed to stand a few minutes in any case to ensure the best flavor and to enable the grounds to settle to the bottom of the pot. To bring slowly to a boil is better than to set the pot over a very hot fire which often causes it to boil over when egg is used.

SOME CHRISTMAS DON'T'S.

BY CHARLOTTE A. AIKENS.

FIRST, do your planning early in December. The shopper who rushes in at the last moment and hastily picks up useless trifles to be sent to somebody for the sole reason that she thinks they will expect something, is usually the one who votes Christmas a bore, a time to be gotten through with somehow but which brings no pleasure with it.

Don't buy ornamental calendars as gifts unless you positively cannot think of another thing to give. So many advertising firms give calendars now-a-days and many of these commercial calendars are so pretty that the average person is apt to have calendars to burn before the new year comes in.

Don't give a picture that needs a frame unless you give the frame with it. A gift that requires an expenditure of money before it can be used is rarely appreciated by people who have to consider expenses.

Don't give a Bible to a small boy when you know he would rather have an air gun or a pair of skates. If you can't give the Bible and the gun give the gun and let the Bible wait for some other time when he is not expecting anything.

Don't give a handsome doll to a little girl and then tell her she must not play with it for fear she will break it. Give her instead some common, homely affair that she can hug and dress and undress to her heart's content without fear of an accident.

Take it for granted that every housewife has enough tidies and sachet bags and head rests (or unrests) and ornamental rolling pins, and clothespins, and fans, and such trifles and don't waste time on this class of presents. A most senseless looking thing seen in a city home recently was a large hand-painted shovel—the kind of shovel men use to shovel grain into bags. It was neither useful nor ornamental, but there it stood, a monument to some woman's folly. No man surely would ever put in time decorating a shovel.

Don't give an elaborate gift to a two-year-old child and forget all about giving anything to his grandfather. Ten chances

to one, the two-year-old would rather have a ten-cent rag doll or something he can make a noise with than your silver set which has no special value to him and the grandfather may feel keenly neglected even though he never mentions it.

Don't forget that a good Christmas letter means more to a great many people than some gift which they did not need and which you could ill afford. Get some Christmas letters in good time. Old friends of long ago will appreciate hearing from you and Christmas is a pretty good time to patch up friendships or to touch them up and keep them in repair.

If you can't think of anything appropriate and are determined to send something, buy some pretty cards of greeting and let it go at that.

Don't forget that a good laugh is a good thing and that a Christmas trifle can often be used to create this good thing.

Don't forget the lonely man or woman far away who perhaps was greatly interested in you in bygone days. Almost any trifle is likely to be appreciated when one is living an isolated life.

Don't crowd all your gifts into one day of the year and forget that there are birthdays and wedding anniversaries which families would be wise to remember.

DON'T COMPEL MARY TO "MIND THE BABY."

BY F. T. MORRIS.

Do you consider it quite fair, to ask your older children to take the care of the younger out of your hands?

The "little mother" is the slums' product, and she was never meant for families much higher up in the social scale.

This throwing of the care of the younger children upon the older would be amusing if it was not so hard on the delegates.

"Clara, take the baby out for a walk." "John, mind the baby, I'm going out." "Children, do keep Willie from crying, I want to read." "Here you boys, let your little brother play with you." One frequently hears such speeches as these, followed by angry rebellion, or sulky obedience.

Of course, the older children should feel some sense of responsibility and helpfulness, and they do. They love and want to please their younger brothers and sisters; but their mothers should not forget that they are only children, too, separated by a few years from babyhood, and that they need their playtime.

Keep your children young as long as you can; and don't make "little mothers" of them, even if you have to expend a little extra time in the care of the smaller ones.

"THIS IS THE WIFE FOR ME."

I want it to be thoroughly understood that the writer of this is a mere married man—who, through inability to get work, has seen more in a few weeks, of what is called home life, than he has during many years of married bliss, and at last can appreciate the work of the wife and mother in the home.

From what I have seen I have come to the conclusion that a supporting cause, as I may call it, of the existing state of things, is the ignorance of man generally, concerning the cost of carrying on the family—not the cost to themselves in money, but the cost to women in endurance. Of its power to exhaust her vital force, he has not the remotest idea. Each of her little ten-minute duties seems so trifling, that to call it work appears absurd, but he does not reflect that often a dozen of these ten-minute duties must be crowded into an hour, which holds but just six times ten minutes; that her day is overflowing with these crowded hours; that consequently she can never be free from hurry, and that constant hurry is a perpetual strain upon her in every way. The ordinary man thinks he could do the work in half the time and not feel it a bit—there is hardly an individual among mankind but thinks the dishes might be just rinsed off under the kitchen tap, and stood up to dry; scarcely a man of us who, if this were tried, would not cast more than enquiring glances at his plate; for it is always that which is not done, that a man sees. If one chair round escapes dusting it is that particular round upon which he casts his eagle eye. In his mind there are two ideas; one is the "whole long day," and the other of that infinitesimal undone duty. The remark visible on his countenance is, "The whole day, and no time to dust a chair!"

One mistake of man's is, that he does

Facts for Weak Women

Nine-tenths of all the sickness of women is due to some derangement or disease of the organs distinctly feminine. Such sickness can be cured—is cured every day by

Dr. Pierce's Favorite Prescription

It Makes Weak Women Strong, Sick Women Well.

It acts directly on the organs affected and is at the same time a general restorative tonic for the whole system. It cures female complaint right in the privacy of home. It makes unnecessary the disagreeable questioning, examinations and local treatment so universally insisted upon by doctors, and so abhorrent to every modest woman.



the symptoms of those peculiar affections. We shall not particularize here as to the full information as to their symptoms and means of positive cure are referred to the People's Common Sense Medical Adviser—1008 pages, newly revised and up-to-date Edition, sent free on receipt of 21 one-cent stamps to cover cost of mailing only; or, in cloth binding for 31 stamps. Address Dr. R. V. Pierce, Buffalo, N. Y.

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You can save 50% on your coal bills this Winter by buying Riverdale Storm Sash and Doors. We save you one third. We are manufacturers selling direct to you. You need that extra profit more than your local lumber dealer does. Buy direct of us and save that much clear money. You also need that extra profit your dealer gets on your coal bill.

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We have a large assortment of stock sizes on hand all the time. We receive your order to-day and ship to-day. No waiting. Odd sizes are shipped on an average of 7 days and never more than 10 days from the receipt of order. Look out for the scarcity of coal this winter it is sure to come, be provided with Riverdale Storm Sash and Doors. Write for circular and prices to-day.

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is an aid to beauty. A skin whose natural loveliness is spoiled by unsightly eruptions, pimples and blotches, is made smooth and clear by Heiskell's Ointment. Cures eczema, tetter, erysipelas, blackheads, ring worms and all other disfiguring skin diseases. After the cure use Heiskell's Medicinal Toilet Soap constantly—it keeps the skin healthy. Sold by all druggists. Write for our new booklet, "Health and Beauty."
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WONDER LAMP

The Factories Sales Co. of 833 Wyandotte St., Kansas City, Mo., is making an offer to send a lamp, free to one person in each locality to introduce this FREE marvelous, new, incandescent 100 candle power oil lamp. Simply send name and nearest express office.

RENEW NOW and save the advance price which goes into effect January 1, 1911.

not look upon the tidy state of a room as a result, but as one in which, if left to itself, it would naturally fall and remain. We know alas! too well, that every room not only has within itself possibilities of untidiness, but that its constant tendency is in that direction, which tendency can only be checked by constant vigilance. Again, husbands do not always seem to be able to understand plain English. There are certain expressions in common use among women, which, if husbands would understand, would make them sadder and wiser men. "I am fairly done up," "I don't seem to know what it is to feel rested," "I'm absolutely too tired to sleep," "I'm just as tired in the morning as when I go to bed," "The life has all gone out of me," "Life isn't worth living," "It is only the excitement keeps me up," "I daren't leave off or I should never begin again."

Now nothing keeps this woman about the house but her ambition. Fancy living always in this state of tension! The dictionary definition of "tension" is "a peculiar, abnormal, strained condition of the parts, arising from the action of antagonistic forces, in which they endeavor to return to their natural parts." Exactly. There are thousands of women in just this state, sustained there by the daily pressure and excitement of hurry, and by a stern, unyielding "must." In the treadmill of their household labor, breakfast, dinner, and supper revolve on ceaseless course, and they must step forward to meet them. And, when more of her vitality is expended daily than is daily renewed by food and rest, woman does, actually and without any figure of speech, use herself up. Yes, she burns herself as fuel, and goes down a wreck—not always to death; often it is to a condition made wretched by suffering; sometimes to insanity.

The "never-endingness" of woman's work is something to be considered. A writer speaking of husbands and wives, says, "The out-door air, the stir, the change of ideas, the passing word for this man or that, unconsciously refresh and lift him from the cankering care of work. His work may be heavier, but it wears him on one side only. He has his hours sacred to business, to give to his brief his sermon, his shop. There is no drain on the rest of his faculties. She has not a power of mind, a skill of body, which her daily life does not draw upon. She asks nothing better of fate than that whatever strength she has of body and mind shall be drained for her husband and children. Now, this spirit of martyrdom is a very good thing—when it is necessary. But is there occasion for it?" This is the point exactly. The "martyrdom," too often, is for objects not of the highest importance. The lack of appreciation of woman's work, as shown by man in the newspapers, would be amusing, if it were not saddening. Articles, dictating with solemn pomposity, "what every married woman should be able to do," often appear in print, and these embodiments of wisdom (?), editors are willing to print. "Every married woman should be able to cut and make her own, her husband's, and her children's clothes." The husband reads and nods approval. The wife hears, and sighs. "Every married woman" whose boys take to reading should snip such newspaper articles into shreds, burn them up and bury the ashes.

The prevalent belief that woman is in some degree subordinate to man, is rather taken for granted than expressly taught, as witness a certain kind of legend often told to young girls. "There was a young man, visiting a strange house, saw a girl putting dough into pans, and saw that the dough which stuck to the platter was left sticking there, whereupon the young man said 'This is not the wife for me.' In another house he sees a damsel who does the opposite in regard to the dough, and says, 'This is the wife for me.'" Another young man offers to successive maidens a skein of tangled silk to wind. The first says, "I can't; the second tries, and gives up; the third makes a quick job of it with her scissors; the fourth spends hours in patiently untangling, and is chosen. Now, what shows the state of public sentiment is the fact that in none of these legends is it intimated that the young man was fortunate in securing a thrifty or a patient wife. It was the thrifty and patient young woman who was fortunate in being selected by a young man—by any man—for the character of the man is never stated. And there is an inference in the second legend that a young woman's hours can be no better spent than

in untangling a skein of silk. And so mighty man is supposed to choose his helpmate, and then expect her to be possessed of the thousand and one virtues which he considers she should own in order to fill the exalted position as the mother of his children.

W. R. GILBERT.

SHORT CUTS TO HOUSEKEEPING.

The corrugated pasteboard that lamp chimneys come in makes excellent mats to clean sad-irons on.—C. R. L.

A three-armed, nickel-plated towel rack, screwed inside the closet helped one mother solve the problem of where to keep the children's wash clothes. She sewed tape hangers on the dresses, and hung from 10 to 15 dresses on this rack.—Mrs. J. D.

Make play-mittens for the wee men from old woollens. They are quicker made than by knitting.—H. K.

At the right hand end of my ironing table I tacked a six-inch square of asbestos paper, allowing the edge of the ironing sheet to extend just over its edge. In this way the iron may be pushed upon the asbestos without lifting and there is no danger of it catching fire. I find it makes an ideal rest for the iron. A regular asbestos mat may be used in the same manner. Lifting a heavy iron to place it upon a standard is an unnecessary expenditure of strength.—E. E. R.

If one wishes to save paint pails, they can be easily cleaned with sawdust.—K. K. B.

I finish my kitchen aprons at the bottom with a ruffle about ten inches deep and find it much better than a plain hem. The ruffle catches the dirt that would reach the unprotected part of the dress if only the hem were there.—M. A. P.

To remove the limy substance from the inside of a teakettle boil a few potato peelings in it for an hour with plenty of water on them.—Mrs. A. D. P.

IN THE REALM OF FANCY WORK.

If you are making any new cushions this fall and want to have them strictly up to the minute, make them long and narrow instead of square, regular pillow shape, to be exact. The smart shops are showing this shaped pillow, the covers of coarse linen or of burlap embroidered with wood fibre in a conventional design. The long sides are not finished at all, but a fringe finishes both ends. The linen, or burlap, as the case may be, is fringed out about six inches, and the fringe tied like that of bedspreads or towels.

Another fancy in pillows is to have the burlap decorated with designs in leather. The leather is cut out in squares, bands, ovals, or geometric shapes and stitched onto the burlap.

There is a great fad this season for flowers made from ribbon, especially roses. A handy hatpin holder owes its decoration to this fancy. The holder itself is nothing but a ten-cent vase with loops of narrow bebe ribbon hiding the base, and the ends carried up to the top of the vase where more loops are formed. Then wide ribbon is skillfully used in making rose petals around the top of the vase, the opening forming the center of the flower.

The woman who looks after all the laws of health and sanitation sees to it that her corset is washed as well as her other garments. For the clean corset a neat case of white linen is appropriate. Make it longer and wider than the corset, embroider the word in any color and if you like, embroider a design down either side. It would be nice to embroider in a color to match the furnishings of the bedroom.

For the person who is going on a journey a case for rubbers would prove a fine gift. Make the case the shape of a music roll only, of course, have the ends closed. Natural colored linen is a good material, and on this the word rubbers may be embroidered in any color.

Egyptian effects are the newest things in embroidery. Figures which look as if they had stepped from old Egyptian "works of art" are embroidered on table linen and on scarfs.

For the neck, smart ties are made of a small bow with long pointed ends. They come in black, in Persian, black with Persian bands, red, blue, brown and green, in fact, every color of the rainbow.

See This Famous
"Ball-Band" Coon Knit Boot

This boot is KNIT, not felt, which means durability and service.

The snow excluder fits snugly over the rubber and keeps snow, mud, dirt, grain, etc., out of the rubber.

It's one of the many items in our line of Rubber and Woolen Footwear which have made the "Ball-Band" trademark the standard of quality among 8,000,000 buyers.

The price of crude rubber has gone up by leaps and bounds. The demand from the automobile tire and similar industries is great. And the temptation is strong for the unscrupulous manufacturer to cheapen the quality of his product.

"BALL BAND"

But while we cut selling and handling expense to the quick, the famous "Ball-Band" quality remains the same. We make less profit per pair, but we sell to the same people—and thousands of their friends—year in and year out. And the manufacturer who skimps quality will have to fool a new set of people each year.

If you insist on "Ball-Band" goods when buying rubber footwear for any member of your family, you have an absolute guarantee of wear, warmth and satisfaction.

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Mishawaka Woolen Mfg. Co.

Mishawaka, Indiana



CHRISTMAS AND THE

What would be better, or more appropriate as a gift to Mother, Daughter, Sister, or Friend, than a NEW HOME, the sewing machine of quality. It would be a source of pleasure for a lifetime, and make home life more cheerful.

WARRANTED FOR ALL TIME.

The test is in the real service. Get the testimony of the users of the NEW HOME, it will be convincing proof of superior qualities. The NEW HOME has no complicated parts to get out of order; is Simple, Strong, Silent, Sure, and can be relied upon at all times for perfect sewing. Not sold under any other name.

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THE NEW HOME SEWING MACHINE CO.,
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Beautiful Carving Set
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For a club of three subscribers to the Michigan Farmer. One of the subscriptions may be your own.

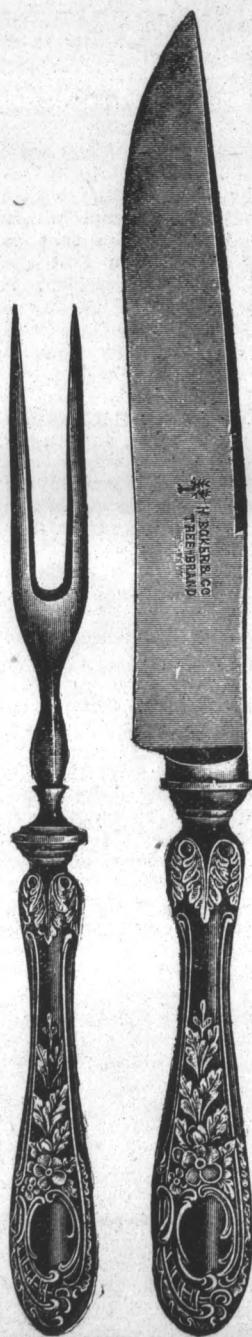
Two piece, Nickel Silver Carving Set, WARRANTED. Knife is 10 inches long and Fork is 7 3/4 inches long. Highly polished with beautiful design on handles. A beautiful ornament to any table, and at the same time serviceable.

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Only a few minutes of your spare time.

We will send you this beautiful Carving Set FREE for a club of 3 subscribers to the Michigan Farmer, and one of the subscriptions may be your own. They may either be for 1, 3, or 5 years, and all of the subscribers get FREE premiums as per the premium booklet. No doubt you have a couple of neighbors who will subscribe for the Michigan Farmer if you will ask them. It will only take a few minutes of your time and you will get FREE a Carving Set that would cost you \$2.00 or more at any Jewelers. If it is not convenient for you to get a club of 3 subscribers and if you would like to have one of these Carving Sets we will send you one for \$1.00.

The Michigan Farmer, Detroit, Mich.



THE SUGAR BEET SITUATION IN MICHIGAN.

The Shiawassee County Sugar Beet Growers' Association met at Corunna last week to consider a demand for increased pay for sugar beets. Delegates were there from several other counties and plans perfected for holding a state meeting at Bay City, Dec. 15. The beet growers point out that the sugar manufacturers are paying enormous dividends, not only regular dividends but stock dividends, until today sugar stocks are much above par, with a large proportion of water in addition in the stocks. Several years ago when the sugar business was new it was right that the farmers should in part mutually bear the burdens of creating a new industry. Expensive machinery had to be installed, experts from Europe brought to this country and a large expenditure of capital made. Since that time a process of converting the waste pulp into a profitable feed has been discovered and this feed is now shipped from this state in train loads. The syrup that would not crystallize into sugar is made into alcohol and vinegar, and the potash taken from the syrup directly and from the soil in the first instance is sold to fertilizer manufacturers to be prepared for its return to the land. These heretofore waste by-products are now of great value, and aid materially in paying for the beets. Sugar, while receding in price recently, has been relatively advanced, as the consumer well knows.

That these things are true is reflected in the price of sugar stocks. The manufacturers are protected by a tariff and by the American Sugar Co.'s control of the industry as was shown in the official list of stock held in Michigan companies by Chas. Heike, the secretary of the American Sugar Refining Co., at New York. The various sugar companies subscribe to a publication which they send to each beet grower, the idea being to create sentiment favorable to the industry. This paper carefully refrains from publishing anything that would enlighten the farmer on the financial side of manufacturing, and presumes to order the farmer to "grow beets" and how to vote with the same authority that the old slave master gave his commands. If the sugar manufacturers would substitute a real agricultural paper, like the Michigan Farmer, as an aid to scientific farming, they would accomplish much more.

The profits in manufacturing are seen in the aggressive competition for acreage. Solicitors for acreage, and field men, are so numerous that even the factory officials are astounded at the pay rolls. In connection with this phase of the business have come some glaring abuses that work for waste. One factory is said to have paid for 5,000 tons of beets that it never received, overweights and undertariffing being the reason. What Senator Aldrich said about the lack of economy with the U. S. Government, and Attorney Brander's claim as to the waste of railroads, is undoubtedly true of the sugar factories and could be remedied by a co-operative relation with the growers. On the part of the farmer the general rise of farm products, as shown by Senator Lodge's report, has been 38 per cent within the last decade. Farm lands are higher, labor, teams, tools and fertilizer, in fact every element that enters into the grower's cost of a ton of beets. From the factory standpoint, efficiency of processes has more than kept pace with the advances of labor and supplies other than beets. The Holland factory, one of the most economically managed sugar factories, recognized these conditions at the beginning of this year and its 1910 contracts agree to pay \$5.25 for a 12 per cent sugar content and 40c for each additional one per cent. When one factory can pay these prices—one whose stock is quoted high—it would seem that all factories could do the same.

A more economical management, and increased pay for beets, would make Michigan the first state in the Union in sugar production. The Shiawassee county meeting agreed to demand a schedule of prices a trifle higher than the Holland figures and will recommend it as the standard schedule for Michigan growers. The beet growers are not belligerent or hostile to the industry but feel that absolute equity entitles them to the demand. Nor can the factory control afford to arrogantly say, you will accept our terms or nothing. There is most emphatically a condition that calls for conservative consideration.

Shiawassee Co. JAS. N. McBRIDE.

CROP AND MARKET NOTES.

Sanilac Co., Nov. 21.—This date finds the farmers pretty well prepared for winter; some corn fodder yet to draw in and some are still plowing, as the ground is rather dry the freezing we have had has not affected it much. Bean threshing about done and beans have proven to be a good cash crop one more season, as the price is now \$1.85 and some are holding for \$2. Considerable land changing hands with the price ranging as high as \$80 and \$90 per acre for improved farms. Good milch cows are also very high. Late potatoes were a good yield, some digging out 225 bushels per acre. Market prices are: Wheat, 86c; corn, 30c per crate; oats 30c; potatoes, 30c; rye, 70c; eggs, 27c; butter, creamery, 30c; lambs, \$5.50 per cwt.; hogs, \$6.50.

Emmet Co., Nov. 24.—Owing to frequent rains there has been little opportunity during the month to get fall work done. The cold and snow that began about the middle of the month caught some potatoes undug, and there has been no chance to get them out since that time. Today a rain has set in and the snow is going. The ground is saturated. But little fall plowing done. Hay, \$16@17; straw, \$8; pork, dressed, 8½@9c; chickens, live, 8@9c; eggs, 30c.

Mecosta Co., Nov. 25.—November has been generally a cold month. Not much snow but cold and cloudy throughout. The fall work is nearly all done. Potatoes were marketed in larger quantities this fall than any previous fall for several years. Some people being obliged to sell owing to last year's price; others are just selling their surplus crop while still others fear a repetition of last year's prices. Corn is bringing good prices and is a good crop. Live stock is going into winter quarters in good condition. Hay is worth \$11@13.50 per ton; straw, (rye), \$4.50, baled; corn, 30c crate; rye, 70c bu; oats, 35c; wheat, 98c; hogs, \$6.50 per cwt.; hens, 7½c lb; eggs, 28c doz; butter, 25c lb. for dairy and 29½c for creamery.

Livingston Co., Nov. 28.—Considerable stormy weather the past two weeks and machine huskers are not doing much. There is probably 20 per cent of the corn crop yet to be husked. Wheat will go into winter in excellent condition. Some fall plowing being done. The recent slump in meat prices has made lamb feeders a little cautious about stocking up too heavily. Not many farms changing hands this fall. The demand for cows is greater than the supply and prices paid range from \$60@125. Clover seed that has been threshed has been yielding well.

Wayne Co., Nov. 21.—The weather has been cold and stormy and quite snowy for this time of the year. Potatoes are about all dug. Yield of late planted potatoes pretty fair. Shippers paying 30c per bu. Corn nearly all husked, yield a little below the average, quality good. Farmers have commenced feeding cattle. Cattle going on winter feed in good shape. Hogs have taken a big drop, being worth \$7 per cwt.

Carroll Co., Nov. 25.—The weather is rainy and cold. Most farmers are nearly done husking corn. We haven't had much snow yet. Some farmers started butchering hogs. The corn crop wasn't very good. All live stock is looking good. The corn market has weakened a little. Butter, 28c; buckwheat flour, 4c lb. Roads are getting pretty bad, the late rains made them very muddy.

Montgomery Co., Nov. 20.—The weather for October and November has been generally cool with very little rain. Corn mostly all husked. The crop is a good average and the grain well matured. The wheat does not look so well the last week or two on account of dry weather. Tobacco all cured and ready to strip. Stock scarce and high in price. Wheat, 85c; corn, 35@40c; oats, 28c; rye, 62c; clover seed, \$6.50; butter, 28c; eggs, 30c; lard, 12c; potatoes, 75c; hogs, 8c; fresh cows, \$40@50; veal calves, 7c; sheep, 4@5c; lambs, 8c.

MICHIGAN FARMERS' INSTITUTES FOR DECEMBER.

County Institutes.

Ogemaw Co., West Branch, Dec. 12-13; Crawford Co., Grayling, Dec. 13-14; Montmorency Co., Atlanta, Dec. 14-15; Otsego Co., Vanderbilt, Dec. 15-16; Cheboygan Co., Wolverine, Dec. 16-17; Emmet Co., Harbor Springs, Dec. 19-20; Wexford Co., Manton, Dec. 21-22.

One-day Institutes.

Wexford Co., Buckley, Dec. 3; Wexford, Dec. 5-6; Meauwataka, Dec. 7; Pleasant Lake, Dec. 8; Cadillac, Dec. 9-10. Mason Co., Dec. 3; Riverton, Dec. 5; Logan, Dec. 6; Freesoil, Dec. 7; Victory, Dec. 8; Summit, Dec. 9. Van Buren Co., Bloomingdale, Dec. 12-13; Hartford, Dec. 14-15; Paw Paw, Dec. 16-17. Oceana Co., Weare, Dec. 13; Crystal, Dec. 14; Walkerville, Dec. 15; Ferry, Dec. 16; Cranston, Dec. 17; Benona, Dec. 19; Oceana Center, Dec. 20; Mears, Dec. 21; Pentwater, Dec. 22. Emmet Co., Island View, Dec. 3; Ely, Dec. 5; Levering, Dec. 6; Alanson, Dec. 7; Epsilon, Dec. 8; Petoskey, Dec. 9. Isabella Co., Delwin, Dec. 5; Weidman, Dec. 6; Blanchard, Dec. 7-8. Kalkaska Co., Excelsior, Dec. 6; South Boardman, Dec. 7; Rapid City, Dec. 8. Luce Co., Lakefield Twp., Dec. 8; Newberry, Dec. 9. Alpena Co., Wilson, Dec. 6; Hubbard Lake, Dec. 7; Cathro, Dec. 8. Presque Isle Co., Onaway, Dec. 9; Oqueoc, Dec. 10. Iosco Co., Wilber, Dec. 12; Grant, Dec. 13; Hale, Dec. 14; Sherman, Dec. 15; Albaster, Dec. 16. Osceola Co., Reed City, Dec. 10; Hersey, Dec. 12. Kalamazoo Co., Oshemo, Dec. 13; Texas, Dec. 14; Portage, Dec. 15; Schoolcraft, Dec. 16; Pavilion, Dec. 17; Scotts, Dec. 19; Climax, Dec. 20; Augusta, Dec. 21; Cooper, Dec. 22; Alamo, Dec. 22.

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NOTICE.
At the annual meeting to be held in the City of Hastings on January 3rd, 1911 at one o'clock, P. M., the members of the Michigan Mutual Tornado, Cyclone and Wind-Storm Insurance Company will vote on amendments to and revising the charter of the said Insurance Company. Dated Hastings, Mich., Nov. 26, 1910. D. W. ROGERS, Sec.

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THE DAIRY

CONDUCTED BY COLON C. LILLIE.
ON SELECTING DAIRY ANIMALS.

The success in building up a dairy herd depends to a great extent upon one's ability to select the right individuals, both males and females. To emphasize more fully the importance of rigid selection it should be remembered that all selection is based upon the law that "like produces like," or that the offspring will be like the parents. The essence of this law is that good milkers will produce good milkers and poor milkers will produce poor milkers. The uniformity with which this law operates is dependent upon three things: 1. Purity of breeding. 2. Closeness of blood relationship. 3. Similarity of parents.

Purity of Breeding.

The purer the breeding the greater the certainty with which animals will transmit their own characteristics to their offspring. Thus, for example, one can figure with much certainty that the progeny of pure-bred parents of the same breed will resemble its parents in all essential characteristics. On the other hand, there is no certainty whatever that the offspring of parents of promiscuous breeding will resemble its parents, either in important or unimportant particulars. It may be like them or it may be totally unlike them. It is the long period of breeding along one line without admixture of foreign blood that gives the pure-bred animal the superior power of transmitting its qualities to its offspring, a power usually spoken of as prepotency.

Closeness of Blood Relationship.

The characters of parents of the same strain will reappear in the progeny with greater regularity than those of parents of different strains in the same breed. This fact is recognized in in-and-in breeding which is an attempt to secure and speedily fix desirable characters by close breeding. In-and-in breeding is becoming more popular, but should be attempted only by those who have at least a fair knowledge of stock breeding.

In the case of crossing one breed upon another as, for example, a Holstein-Friesian upon a Jersey, it is often mistakenly supposed that the progeny of such a cross partakes equally of the characters of both parents. This may occur in some instances, but more often the offspring will resemble either one parent or the other, or neither. But even where the offspring does partake equally of the characteristics of both parents, such a cross is undesirable because the offspring is not capable of transmitting its characteristics with any degree of certainty. In the hands of the average dairyman transmission in crossing is uncertain and unsatisfactory and for this reason should not be attempted.

When a cow of nondescript or promiscuous breeding is bred to a pure-bred sire, the offspring will largely partake of the characteristics of the sire by reason of his greater prepotency. The offspring of a highly prepotent sire and a common or native cow will take on nearly all the essential characteristics of the sire. In such a case the sire counts for a great deal more than half the herd, which accounts for the rapid improvement possible in grading up herds of common cows with prepotent, pure-bred sires from high-producing stock.

Similarity of Parents.

In mating animals it should always be remembered that the greater the similarity of all their essential characteristics the greater the certainty of transmission. Where animals of great extremes of size, conformation, function, disposition, etc., are mated, somewhat the same results may be looked for that are obtained in cross-breeding.

Mating animals of highly dissimilar characteristics is spoken of as violent mating and should be avoided.

Wisconsin.

JOHN MICHELS.

BEEF TOP ENSILAGE.

Does it pay to put the sugar beet tops in the silo, and how should they be put in? Should they be cut up with the ensilage cutter, or just piled in as they come from the field? I did not get the silo full of corn, and would like to supplement it with the beet tops.

Ottawa Co.

J. B. E.

I do not think it necessary to run the beet tops through an ensilage cutter to make them into ensilage. If they are put in whole and tramped down, they will settle and ferment and make good ensilage. The first I ever put in a silo, I

run them through a cutting box, with the old-fashioned sliding carrier, and this worked all right. We had no loss, but it was very hard on the machine, as there is so much grit, and occasional stones in the tops that it gives ensilage cutters a hard usage.

I am inclined to think that, provided you cannot feed your beet tops all out to your cows fresh from the field before winter closes in, and have any considerable amount left, it will pay you to put them into the silo, and it will be all right to run them in right on top of the corn silage, but I do not see how you can get them into the silo without running them through an ensilage cutter, because you will have no other way of elevating them clear to the top of the silo. On the other hand, I do not know just how an ensilage cutter with a blower elevator will handle beet tops. I presume that the blower will elevate the beet tops just as well as corn, but certainly they would have to be cut up fine to be elevated by this sort of a machine. If you could find an old carrier machine, you can elevate them by simply pitching them on to the carrier, if you do not want to run them through the cutter, but my judgment is that the only way to get them elevated by a modern blower elevator, is to have them cut fine, otherwise it would break your fan.

THE MODEL COW STALL.

Knowing you have the model cow stalls in your barn I should be very grateful to you if you will send me complete dimensions of them. We have decided to put the model stall in our barn and have no description of them, giving complete dimensions. Also how deep should the gutter be made?

Berrien Co.

S. E. M.

While I have answered this same question a number of times through the Michigan Farmer, I suppose S. E. M. has not carefully filed his papers, and so cannot refer back to them for the information which he desires. Or perhaps at that time he was not interested in cow stalls, and took no note of the discussion which has already been given. Knowing also that new subscribers are constantly being added to The Farmer family, it probably will not be out of place to go somewhat into details again, in describing the model cow stall.

The object of a cow stall, or a system of tying cows in the stable is, of course, to keep the cows as clean as possible and to properly confine them. There are two general systems of cow stalls, or manners of tying cows in stables. One system is to line the cows up to the manger, and the other is to line the cows up to the gutter. Some patent stalls are so constructed that the cow must stand with her hind feet close to the gutter, so that the droppings and the filth from the cow drop into the gutter out of the way. To accomplish this purpose, these stalls have a movable manger that you can move and adjust for each cow, according to her length. Stanchions are usually put into a barn on an angle, having the distance from the gutter to the stanchion greater at one end of the stable than at the other. Then the longer cows are put at one end, and the shorter ones at the other.

The model cow stall, however, pays no attention to a gutter at all, but lines the cows up to the manger. A feed manger for grain and ensilage is constructed of cement just on top of the stable floor. This is continued, and runs the whole length of the stable, and the walls of this manger are only four inches high. The manger is two feet wide. On the side towards the feeding alley, in front of the cows, the manger is boarded up four feet high, but at the bottom a door that lifts up is made the whole length of the manger. This door is raised up when ensilage or grain is fed. Twenty-eight inches above the floor, the bottom of the hay manger is constructed. The bottom of it is narrow, usually made out of a two-by-six or a two-by-four. Then the capacity of the manger to hold hay is formed by nailing slats on to this two-by-four or two-by-six and have them slant back towards the cow at an angle of 45 degrees, and long enough so that the top of the slats will be as high as the front of the manger, or four feet above the floor. This makes the top of the hay manger about two and a half feet wide on top. The stalls are three and a half feet wide for ordinary cows. If you have exceedingly large cows, they ought to be four feet wide. Partitions are made by fastening a two-by-four from the back part of the hay manger to the floor between the cows. This partition extends back beyond the hind feet of the cows. Now the very essential part of the stall is the two-by-four that ex-

tends across the stall just in front of the cow's hind feet, and is toenailed on either side. This two-by-four is not fastened permanently, because it must be moved backwards and forwards for different length of cows. For a short cow the two-by-four must be placed nearer the manger, for the long cow it must be placed farther back.

The philosophy is this, the space between this two-by-four and the front edge of the lower manger is filled full of bedding. This makes a bed four inches deep for the cow to lie upon. The cow can be tied with a halter or with a chain around her neck, or in almost any way. The tie is fastened to the side of the stall, so that she can step back and can be given considerable liberty, but when she lies down, she must step up and lie upon this bed formed by the two-by-four in front of her hind feet and the manger, or else she will lie over the edge of the two-by-four. This, of course, makes it uncomfortable, and she will soon learn to lie upon the bed. The manger in front is made low on purpose, so that her head, when lying down, projects over the manger. The hay manger above is made narrow at the bottom and slants back, so that there will be room for her to get up and down, also when she gets up, the slats that project back forces her to step back when she is eating hay, and this keeps her hind feet back of the two-by-four and off the bedding which prevents it from becoming dirty and consequently you have a clean cow. Now, the gutter has nothing to do whatever with the model stall. In fact, some people that use the model stalls have no gutters at all. The gutter is simply put in for a convenient place to throw the manure until it is removed. It should be placed at least a foot and a half back of these two-by-fours, then the attendant scrapes the manure back into the gutter out of the way, and it remains there until it is removed from the stable.

A BALANCED RATION WITH CORN-STALKS.

I have cornstalks to feed for roughage to my cows and would like to make a grain ration of ground oats, corn and cob meal and bran. Would you kindly tell me in what proportion to mix these to have a balanced ration?

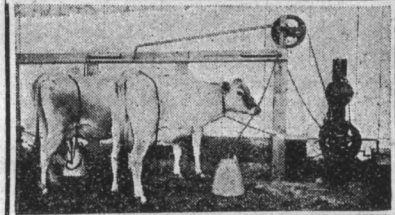
Van Buren Co.

A. J. S.

It is practically impossible to form a balanced ration with the foods given, with nothing but corn stalks for roughage. The amount of protein which one gets from the roughage is exceedingly small. The ground oats and corn cob meal help out but slightly in increasing the protein, and to form a balanced ration, that is, to give a ration which would contain a sufficient amount of protein, to enable a cow to give good flow of rich milk, he would have to feed a grain ration entirely of bran. For instance, 30 lbs. of cornstalks would contain only about one-half a pound of protein. The cow giving 25 lbs. of milk a day ought to have about two lbs. and a half of protein, else she does not have sufficient nitrogen to produce the casein or nitrogenous part of the milk; and to get two pounds of protein from the grain ration, you would have to feed 14 lbs. of bran per day. This would probably be all the grain that you would feel like feeding, and besides you have not used any of the corn cob meal or the ground oats. I would not like to feed this sort of a ration. I would want to put in some of the corn cob meal or the ground oats where I had only cornstalks for the roughage, therefore I would not confine my grain ration to the food named, but would add cottonseed meal and oil meal. These foods being rich in protein—either food containing about four times as much protein as bran—would assist very much in getting a good ration, and if you have corn and cob meal, I think I would leave out the bran entirely, because the ground corn cob will furnish bulk enough so that the bran will be unnecessary. Then I would mix ground oats, corn cob meal, cottonseed meal, and oil meal in equal parts by weight. That is, mix 100 lbs. of ground oats, 100 lbs. of corn and cob meal, 100 lbs. of oil meal and 100 lbs. of cottonseed meal, making a total of 400 lbs. Give the cows all of the cornstalks they will eat up clean. Of course, you must not expect the cows to eat the butts of the cornstalks with only cornstalks as a roughage, you must be liberal in feeding them, so that they can select out the better portions of the stalks and not be compelled to eat all of them. For a grain ration, I would feed each cow as many pounds per day of this mixture of grain, as she produces pounds of butter-fat per week.

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ARE BEETS AND MANGELS INJURIOUS?

Enclosed clipping concerning the feeding of roots interests me as I am feeding six cows very liberally with mangels. Am anxious to learn if I had better discontinue mangels. Have no pasture or silo. Also having some time heard that corn silk balls up in a cow's stomach, I have taken the pains so far to throw out silk when husking. If not necessary I don't want to bother with it.

Wayne Co. J. I. C.
My father used to raise mangels and turnips every year to be fed to all kinds of stock. Before I built a silo I did the same. I never have seen injurious effects of feeding roots to cattle, sheep or any kind of live stock. Since I began raising sugar beets to sell, I have fed the tops to the cows. I do not turn the cows into the beet field to feed after the beets are harvested, and allow them to eat all they desire, but draw the tops to the barn, and feed them a moderate amount each day. I can see no perceptibly injurious results either to the animals or the milk. Last year I built a silo to ensilo beet tops. We mixed some straw with the beet tops in placing them in the silo, fed this to the cows once a day, and if it injured them in any way you could not notice it. The Canadian farmer, the English farmer, and the Scotch farmer raise large amounts of roots every year to feed. I have never heard of any injurious results, and yet, of course, the experiment at the Iowa station must be recognized. I do not propose to question it, but I am of the opinion, as I have stated before in the Michigan Farmer, that where roots and beet tops are fed in moderate quantities, there is no danger of injury. What would be the result if cattle were fed an excessive ration, I do not know.

Possibly an animal sometimes gets hold of enough corn silk to produce indigestion. Corn silk is practically indigestible and if an animal eats enough at once, I can readily understand that it might be injurious, but ordinarily there is no danger from any such source.

ADVANCED REGISTRY.

Please tell me what an advanced registry means. Give full details as I am in dispute over this question with another reader of your paper. What feed value is there in millet hay for milch cows? Which is the quickest way of drying up cows for fattening?

Muskegon Co. A. C. K.
In order to encourage the production and development in dairy cows, the organizations that have charge of the registration of dairy cattle have devised a means of recording in a class by themselves those cows which produce above the average. The Holstein-Friesian association and the American Guernsey Cattle Club call this system Advanced Registration, and the American Jersey Cattle Club call it a Registry of Merit. This system not only includes a weekly test, but also a yearly test and, of course, the cows are not eligible unless they have made the weekly test either before or at some time that the yearly test is being made. The Holstein association has gone into it quite elaborately. For instance, a heifer calving on or before the day she is two years old is only required to make a record of 7.2 lbs. of butter-fat in seven days. This amount gradually increased with the age of the cow, until the mature cow, five years or more of age, must produce 360 lbs. of fat to be eligible to advanced registry. There are also two classes of advanced registry cattle. Class A. requires an animal to score a given number of points, according to the official score card, while Class D. allows the animal to be registered entirely on performance. Bulls are also registered in two classes. In Class A. they must score a certain number of points according to the score card, and he must be the sire of four, at least, daughters which have been admitted to the registry.

In the Guernsey cattle club the rules and classes are much the same. In the Jersey cattle club, while the general plan is the same, the standard is higher and not so much difference is made between heifers and mature cows. For instance, for a weekly record a cow or heifer must produce 12 lbs. of butter-fat in seven consecutive days, and for the yearly record the two-year-old must produce 260 lbs., which gradually increases with age until the mature cow must produce 400 lbs. of butter-fat to be eligible. Practically the same rules govern in all associations with regard to sires.

This test must be made under the supervision of someone authorized by the various cattle clubs to take charge of them. So far as I know, the experiment station in each state has been authorized by the different clubs to take charge of

and become responsible for official tests for all the breeds. Usually the professor who has charge of the dairy work of the experiment station looks after them, selects somebody to visit the farms once each month and perform the test. In this state Prof. Anderson allows the cow testers to make official tests, that is, the men who have charge of co-operative cow testing associations are allowed to have charge of the official tests that may be conducted in the vicinity where their work is located.

Millet Hay.

Millet has a splendid food for dairy cows if it is cut at the proper stage of development. It should be cut before the seed forms and cured same as other hay. If allowed to get ripe, much of the nutriment of the hay goes into the seed, and the seed is so fine that a large per cent of it is not properly masticated or digested, and but little good results. When millet hay is cut at the proper time and properly cured, my experience is, that it will give fully as good or better results than timothy hay.

Drying Up Cows.

I know of cattle dealers who buy cows that are giving a good fair flow of milk and who turn them out into some back pasture and never milk them at all, then dry up and come out all right. He says the way to dry up a cow is to stop milking her. I hate to do this with a real good dairy cow for fear her udder might be injured, but there is very little trouble in drying up a cow if you do not milk her regularly and do not milk her clean. Stop milking her twice a day for two days and milk her once a day, say at right. Then, instead of milking her the next night, let her go until the next morning, then increase the interval between milking until the cow is dry. All the time, be careless about milking and do not milk her clean.

THE FREEZING OF SILAGE.

Being a constant reader of your paper and having read a great deal on the silo question from week to week, a few queries have suggested themselves to me which I would like to see answered through your columns. First, does not the silage freeze to the depth of several inches during cold weather? Will the cattle eat the frozen silage? I should say they would not. Second, if the silage freezes several inches thick during cold weather, when it thaws I should think this frozen stuff would fall down in a mass and spoil before it could be fed out. What could be done with it then?

Grand Traverse Co. E. S.
During extreme cold weather some years ago we had the ensilage in our silo freeze to a depth of several inches around the outside and adhere to the walls. We did not try to get this off, but took the ensilage out of the center of the silo. When the weather moderated the ensilage would loosen up from the sides of the silo and fall down into the silo. Now, by throwing this ensilage into the feeding alley in the evening or in the morning, the barn is always warm enough so that it thaws out before we want to feed it and the cattle eat it readily.

You can prevent an ordinary silo from freezing by hanging a lighted lantern in it during the very coldest weather, or a small oil stove, at a very slight expense. This would have to be done only in the severest weather, just as is done to prevent potatoes or apples from freezing in a cellar. Really, this question of ensilage freezing is not a serious one at all, and no one need hesitate about building a silo on account of its freezing in the winter. When the ensilage thaws out, it seems to be just as good as ever and in a silo intended for summer feeding, this freezing around the edge of the silo in the winter time, in no way damages the ensilage, and the next summer the silage is just as good, so far as one can see, as though it had never been frozen.

CORN COB MEAL.

I would like your advice in regard to feeding corn cob meal. What should be mixed with it to make a good ration, and should it be ground fine or coarse to obtain best results for dairy cows?

Barry Co. M. W. P.
There is really very little food value in ground corn cob. The cob itself is most all crude fibre and indigestible. Where you are feeding animals a heavy grain ration, most people think that the ground corn cob is a benefit in producing a little more bulk in the grain ration, thus tending to give better mastication and digestion of the corn meal. But do not get the idea that ground corn cob will take the place of bran, for instance, as a food. It will not do it. If you are to feed ground corn cobs, grind them just as fine as possible.

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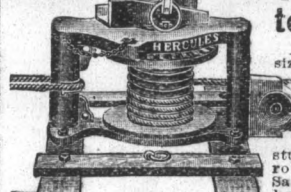
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MARKETS

DETROIT WHOLESALE MARKETS.

November 30, 1910.
Grains and Seeds.

Wheat.—At the present time traders of wheat are looking to Argentine with more concern than any other producing country, with the hope of determining what she will offer to the world market, and the prices here the past week have followed the news of conditions in that country quite closely; at present there is reported improved conditions, rains having broken the dry spell and benefited the crop. Liverpool weakened upon the receipt of the information, and prices on this side fell. It is commonly understood, however, that the crop is short and other countries will be called upon to make up a deficit in her annual contribution to the European markets. Russia is still sending large shipments to Liverpool, but the cold will soon cut off supplies from this source. In southwestern United States the new crop is suffering for water, and other points are not encouraged over the condition that the crop is going into winter quarters. Millers of the northwest are not buying heavily. The visible supply shows a decrease of nearly a million bushels. One year ago the price for No. 2 red wheat was \$1.20 per bu. Quotations for the week are:

	No. 2	No. 1		
	Red.	White.	May.	July.
Thursday				
Friday				
Saturday				
Monday				
Tuesday				
Wednesday				

Corn.—The undertone to the corn deal appears to be firm although the price at the local market has not changed in a material manner the past week. The visible supply shows a decrease of nearly a million bushels. Farmers are neglecting the market, and appear to be giving their attention to feeding, the prices asked for feeding stock being a little more attractive than a year ago, and now being educated to pay high prices for feeders the farmer is not afraid of investing. It is probable that the trade will continue firm, because of the demand for use in feeding lots. New corn is quoted 2½¢ below old offerings. A year ago the price for No. 2 corn was 60¢. Quotations for the week are:

	No. 2	No. 2		
	Corn.	Yellow.		
Thursday				
Friday				
Saturday				
Monday				
Tuesday				
Wednesday				

Oats.—This market is only ordinarily active with conditions unchanged and prices steady. The visible supply shows a decrease. A year ago the price for standard oats was 43¢ per bu. Quotations for the past week are:

	Cash.	Dec.		
Thursday				
Friday				
Saturday				
Monday				
Tuesday				
Wednesday				

Beans.—In spite of the good results reported from many sections that returns from threshing were above expectations, the bean market continues to be firm at the quotations of past weeks. Farmers are optimistic regarding the future of the trade and are holding onto the legumes quite closely. A year ago the market took a sudden jump on the first of December of about 10¢. The price then was \$2.10 for cash. Nominal quotations for the past week are:

	Cash.	Dec.		
Thursday				
Friday				
Saturday				
Monday				
Tuesday				
Wednesday				

Clover Seed.—The activity of dealers has not abated and a large number of exchanges are constantly being made. The price held steady till Tuesday when a drop of 15¢ occurred. Alsike is unchanged. Quotations for the week are:

	Prime Spot.	Dec.	Alsike.	
Thursday				
Friday				
Saturday				
Monday				
Tuesday				
Wednesday				

Rye.—Market is steady and dull. Quotation for No. 1 is 80¢ per bu.

Visible Supply of Grains.

	This week.	Last week.		
Wheat				
Corn				
Oats				
Rye				
Barley				

Flour, Feed, Provisions, Etc.

Flour.—The flour trade is easy with prices unchanged. Quotations are:

Clear		
Straight		
Patent Michigan		
Ordinary Patent		

Hay and Straw.—Hay values are steady. Quotations on baled hay in car lots f. o. b. Detroit are: No. 1 timothy, \$16.50@17; No. 2 timothy, \$15.50@16; clover, mixed, \$15.50@16; rye straw, \$7@7.50; wheat and oat straw, \$6@6.50 per ton.

Feed.—All prices are steady with those of last week. Carlot prices on track are: Bran, \$21 per ton; coarse middlings, \$23; fine middlings, \$26;

cracked corn, \$25; coarse corn meal, \$25; corn and oat chop, \$24 per ton.

Potatoes.—This market is steady with conditions and prices unchanged from a week ago. In car lots Michigan potatoes are selling at 40¢@42¢ bu.

Dairy and Poultry Products.

Butter.—During the past seven days a decline of 1¢ occurred in the local butter trade. There is a good demand and an ample supply. The weakness followed lower prices in other markets, but the change in values was wider here than in Chicago and New York. Dairy goods suffered the same fate. Quotations are: Extra creamery, 31¢; firsts do., 27½¢; dairy, 22¢; packing stock, 20½¢ per lb.

Eggs.—The firm feeling pervading the egg deal for some weeks back, is emphasized more this week because of the growing scarcity of offerings and the continued demand from consumers for fresh goods. The price for fresh receipts, case count, cases included, is 30½¢ doz.

Poultry.—It seems that the shipments of poultry arrived a little late for the holiday and as a consequence the markets are flooded. Dressed chickens are down to 12¢@13¢; fowls, 11¢; ducks, 16¢; geese, 12¢@14¢, and turkeys, 18¢@20¢. Live birds are quoted down to 12¢ for chickens, 1¢ for fowls, 9¢ for old roosters, 18¢ for turkeys, 12¢ for geese, and 15¢ for ducks.

Cheese.—Michigan, 17¢; Michigan sharp, 17¢@18¢; York state, 17½¢@18¢; York state sharp, 19¢; limburger, old, 16¢@17¢; Swiss domestic block, 20¢@22¢; cream brick, 17¢@18¢.

Dressed Pork.—Steady at 9¢@9½¢ lb.

Veal.—Choice, 12¢@12½¢; ordinary, 8¢@10¢ per lb.

Rabbits.—Per dozen, \$2.00.

Fruits and Vegetables.

Apples.—Market is easy with the fruit in fair supply. Choice consignments selling at \$3@3.50; common kinds and grades, \$2@3 per bbl.

Cranberries.—Quoted at \$3 per bu.

Cabbage.—Steady. Selling at \$1.50 per bbl. for new.

Pears.—Steady. Selling at \$1.25@1.30 per bu.

Onions.—65¢@70¢ per bu.

Honey.—Choice to fancy comb, 15¢@17¢ per lb.

OTHER MARKETS.

Grand Rapids.

Dealers report a flat bean market, with no demand. White beans are quoted on \$1.75 basis to farmers; red kidneys at \$2.25. The potato situation is unchanged, prices ranging from 25¢@30¢. Refrigerator cars for moving potatoes are very hard to get, and buyers say that it costs \$20 to line box cars, while a stove and fuel, with man to accompany car, are to be added to this expense. Dry onions are pretty well out of farmers' hands, the price to farmers at present being around 50¢. The onion crop was large and of fine quality. Growers of vegetables under glass are getting 7¢ for lettuce this week, an advance of 2½¢. Cucumbers are a little higher also, selling at \$1.50 per doz. Radishes are practically out of the market. The egg market is firm at 29¢. Creamery butter is off 1¢, dairy unchanged. Dressed hogs are bringing 8½¢@9¢ and poultry is steady at last week's prices.

New York.

Butter.—Prices a shade lower for the best grades of creameries, while other kinds are steady. Creamery specials are quoted at 31½¢@31¾¢; extras, 30½¢, thirds to firsts, 24¢@29¢.

Eggs.—The best grades are again quoted higher. Nearby eggs quoted at 52¢@55¢; fresh gathered extras, 36¢@40¢; firsts, 33¢@35¢; fancy refrigerator stock, 25¢ dozen.

Poultry.—Dressed, all kinds lower and quoted as follows: Western chickens, 13¢@16½¢; fowls, 12¢@17¢; spring turkeys, 17¢@21¢. Live, chickens dull and lower. Spring chickens, 12¢@13¢; fowls, 12¢@13¢; turkeys, 14¢@21¢.

Chicago.

Wheat.—No. 2 red, 91½¢@92¢; December, 89½¢; May, 95½¢ per bu.

Corn.—No. 2 mixed, 47¢@48¢; December, 44½¢; May, 47½¢.

Butter.—Best creamery is ½¢ lower and the market is showing a little more activity in consequence. Creameries, 24¢@30¢; dairies, 25¢@27¢ per lb.

Eggs.—The better grades have moved up another cent during the past week but the market is quiet and has a weak undertone. Quotations are: Prime firsts, 32¢; firsts, 30¢; at mark, cases included, 19½¢@22½¢ dozen.

Hay and Straw.—All grades steady and unchanged. Quotations: Choice timothy, \$19@19.50; No. 1 timothy, \$17.50@18.50; No. 2 do. and No. 1 mixed, \$15.50@17; No. 3 do. and No. 2 mixed, \$12.50@15; rye straw, \$8.50@9; oat straw, \$7@7.50; wheat straw, \$6.50@7 per ton.

Potatoes.—Receipts are moderate and the market very steady at last week's prices. Choice to fancy are quoted at 45¢@48¢ per bu; fair to good, 38¢@43¢.

Boston.

Wool.—The wool market continues firm but the activities of the past fortnight have fallen off a little although there is a continuation of inquiries along very broad lines. The leading domestic quotations range as follows: Ohio and Pennsylvania fleeces—Delaine, washed, 34¢; XX, 31¢@32¢; fine unmerchantable, 24¢@25¢; ½-blood combing, 29¢@30¢; ¾-blood combing, 29¢@30¢; ¼-blood combing, 27¢@28¢; delaine, unwashed, 26½¢@27¢; fine unwashed, 23¢@24¢. Michigan, Wisconsin and New York fleeces—Fine unwashed, 20¢@21¢; delaine, unwashed, 25¢@26¢; ½-blood, unwashed, 28¢@29¢. Kentucky, Indiana and Missouri—¾-blood, 29¢@30¢; ¼-blood, 27¢@28¢.

Elgin.

Butter.—Trade firm at 30¢ per lb., which is a decline of 1¢ from last week. Output for the week, 645,200 lbs.

THE LIVE STOCK MARKETS.

Buffalo.

November 28, 1910.

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

Receipts of stock here today as follows: Cattle, 130 cars; hogs, 14,560; sheep and lambs, 12,400; calves, 1,000.

With 130 loads of cattle on the market here today, weather very bad and rainy, we have to report a gain in prices on all kinds, except heavy steer cattle, which sold steady at about last week's prices. All other cattle sold from 10¢@20¢ per hundred weight higher. Good milkers and springers ruled steady, while the common kind were dull and hard to sell at satisfactory prices.

We quote: Best 1,300 to 1,400-lb. steers \$6.50@6.75; good prime 1,200 to 1,300-lb. steers, \$5.75@6.25; best 1,100 to 1,200-lb. shipping steers, \$5.25@5.75; medium butcher steers, 1,000 to 1,100 lbs., \$5.25@5.50; light butcher steers, \$4.75@5; best fat cows, \$4.50@5; fair to good cows, \$3.25@4; common to medium do., \$2.75@3.25; trimmers, \$2.50@3; best fat heifers, \$5.50@6; good do., \$4.50@5; fair to good do., \$4@4.25; stock heifers, \$3.50@3.75; best feeding steers, dehorned, \$5.10@5.35; medium to good feeding steers, \$4.50@4.75; stockers, all grades, \$3.75@4; best bulls, \$4.75@5.10; bologna bulls, \$3.75@4.25; stock bulls, \$3.50@4; fancy milkers and springers, \$7@8; good to fancy do., \$5@5.50; common to good do., \$3@4.

With 91 cars of hogs on hand today, market opened fully a dime lower than Saturday's best time, closing steady at the opening prices. There was a good clearance, all selling that were yarded in time.

We quote: Mixed, medium and heavy, \$7.40@7.50, mostly \$7.45; few choice at \$7.50. Yorkers, \$7.40@7.45; few fancy light up to \$7.50; pigs, \$7.70@7.90, according to weight and quality; roughs, \$5.50@6.75; stags, \$5.50@5.75. Prospects look fair for the near future. Don't look for any sharp advance, but a good steady market.

The market opened active on handy lambs today, most of the best handy weights selling at 7¢. Heavy lambs slow and hard to sell, most of the northern Michigan lambs selling from \$6.75@6.90, according to weight and quality. Prospects look lower on lambs for the last of the week, unless the run should be exceptionally light. Sheep were about a quarter higher, most of the best ewes selling at 4¢.

We quote: Best handy lambs, \$6.90@7; heavy lambs, \$6.25@6.50; heavy ewes, \$3.75@4; bucks, \$2.50@3.25; yearlings, \$3@3.25; wethers, \$4@4.50; handy ewes, \$3.85@4; cull sheep, \$2.50@3; northern Michigan lambs, \$6.75@6.90; veals, choice to extra, \$10.50@10.75; fair to good do., \$7.50@9.50; heavy calves, \$5@6.50.

Chicago.

November 28, 1910.

Cattle. Hogs. Sheep.
Received today 32,000 35,000 40,000
Same day last year. 33,189 30,441 24,825
Received last week. 53,711 127,624 111,843
Same week last year. 76,940 140,556 93,404

The great stock show starts off with liberal receipts of live stock, cattle being especially plentiful, and the market is not particularly active, while prices are mostly a dime lower. Heavy beefs are included in the dull list, buyers holding off for the sales of show cattle. Hogs, although received in good numbers, are up 5¢@10¢, with a good demand at \$6.65@7.25, the best light selling at \$7.15. Sheep and lambs are active at essentially unchanged prices, lambs going at \$4.50@6.65, while a city butcher paid \$6.75 for a lot of fancy native lambs. Ewes are selling at \$1.50@3.85; wethers at \$3.50@4.10; bucks at \$2@3, and yearlings at \$4.50@5.50. Breeding ewes are wanted at \$3.50@5, and feeders are looking for lambs at \$3@5.75; wethers at \$3@3.65 and yearlings at \$3.50@4.50.

Hogs received last week averaged 230 lbs., compared with 233 lbs. a week earlier; 224 lbs. a year ago; 214 lbs. two years ago and 209 lbs. three years ago.

During last week cattle advanced 10¢@20¢ under light supplies, with butcher stock 15¢@35¢ higher. Yearlings sold considerably higher than heavy beefs, fancy lots going at \$7.30@7.40. Hogs rallied Saturday, but closed the week 25¢@30¢ lower than a week earlier. Lambs advanced 60¢@85¢ under smaller supplies, yearlings advancing 50¢ and sheep 25¢.

Cattle were marketed during Thanksgiving week so conservatively that prices moved upward instead of following their recent rapid downward course. Fed steers went largely between \$5@7, with the choicer class of corn-fed beefs bringing \$6.50@7.40, while the common to fair light-weight killing steers brought \$4.40@5.50, a pretty good grade of steers fetching \$6@6.45. Cattle selling around \$5@5.50 were apt to come within the feeder class, and these were often competed for by packers and country buyers in search of suitable feeding stock. The market for desirable stockers and feeders had its share in the advance, with smaller offerings, stockers going at \$3@5 for inferior to prime lots, while feeders found buyers at \$4.65@5.50. Only a common grade of light stock steers sold below \$3.50, and the greater part of the fair to good stock heifers sold for \$3@3.25. Butcher lots of cows and heifers advanced with steers, sales ranging at \$3.40@6.40, although very few went higher than \$6. Canners sold at \$2@2.75 and cutters at \$2.80@3.35, good cutters being 10¢@15¢ higher. Bulls were especially active and higher, with sales at \$3@5.50, while calves were active at \$3@9.50 per 100 lbs. Milk and springers were less active for shipment to eastern points, the demand being largely from near-by points, and the call centered in good to choice fresh milk cows, backward springers being sold mostly to killers. Sales ranged at \$30@70 per head, few being choice enough to sell above \$55. A word of advice to stock feeders may be helpful at

this time. There is too free a marketing of steers that would sell to much better advantage if they were given 30 to 60 days more on corn. With a superabundance of feed everywhere, it seems a great mistake to keep sending in such large supplies of poorly fattened cattle, many of which are sold at a sacrifice. Try this policy and see if results are not better.

Hogs were marketed quite liberally for another week, the arrivals being larger than had been expected around Thanksgiving, and buyers managed to force some more sharp breaks in prices that placed hogs on a much lower basis. As compared with the corresponding week two years ago, however, when hogs were plentiful in feeding sections, last week's receipts looked small. The demand from eastern shippers was unimproved, and hence there was little genuine competition among buyers. Last spring's pigs have continued to show up in steadily increasing percentage, and they averaged well in quality and found great favor with buyers. The outlet for fresh pork was assisted by further reductions in prices, and bacon was a little cheaper. The future of the market looks bearish, yet the prevalent belief is that stockmen are fully warranted in holding healthy young hogs until they weigh around 225 lbs. at least. It is believed that the abundance of cheap corn warrants this course. There is a good demand in farm districts for good brood sows, and high prices are paid invariably, farmers realizing the great importance of restoring the hog supply of the country to normal proportions.

Sheep and lambs were marketed less freely during Thanksgiving week than in recent weeks, although much more freely than for corresponding weeks in former years, and although the great feast day was a close holiday, with poultry universally eaten throughout the country, prices actually underwent good advances. Fat lambs that were not too heavy in weight were the prime favorites with most butchers, and 90-lb. consignments were discriminated against, as usual. Yearlings that were fat and on the lamb order were also in excellent demand, undergoing sharp advances, and sheep shared in the upward turns. There was a shortage of fat lambs, but plenty of common and medium lambs showed up, and inferior feeder lambs went as low as \$3 per 100 lbs. The general feeder demand was very fair for so late in the year, and word from various feeding districts is to the effect that feed lots are carrying larger numbers than ever before. Hence, the prospect for high prices for matured live mutons is not the best, but sheepmen who have sufficient shed shelter stand a fair show of coming out well, provided the feeders did not cost too high.

Horses have been moderately active, with heavy drafters quotable at \$175@275 per head, while there is an occasional report of a sale at \$300 or even higher. Small chunks are wanted for southern shipment at \$60@125, the greater share going at \$75@115, and wagon horses are wanted at \$130@175 and feeders at \$160@210. Drivers are salable at \$150@300, going mostly at \$175@225.

F.

LIVE STOCK NOTES.

At last people are buying various kinds of meats at reduced prices after months of almost unequalled high prices. Fresh pork leads the decline, and its consumption is increasing very fast, although of late poultry has to a great extent taken the places of pork, beef, mutton and veal. The choicer cuts of beef steaks are the slowest to decline.

Extremely large numbers of feeding steers were bought in July, August and September for short feeding, and for several weeks they have been coming on western markets in excessive numbers, causing sensational declines in prices and giving packers a fine chance for loading up with cheap beef. The coolers are now unusually well stored, and enough beef is on hand to last a long time. Many stockmen paid extravagant prices for their feeders at the start, and now they are either losing money or only coming out even.

J. M. Bradshaw, of Illinois, one of the largest stock feeders in the state, marketed at Chicago recently two car loads of steers at \$5.40 per 100 lbs. These cattle were purchased in September last year at \$4.25, carried through the following winter on roughage and turned into a blue grass pasture last spring. Since August they were fed corn, and the owner came out ahead on account of the low first cost. Mr. Bradshaw is prepared to feed 200 cattle, but is unwilling to pay over \$4 per 100 lbs. for good feeder steers.

It has been remarked recently by an authority on hog raising that hogs have made fair returns in the past when marketed at \$5 per 100 lbs., with corn bought for prices little below the basis which some bearish prognosticators have set for it to reach in the next few months. The fact is recalled that some time ago, when hogs were advanced to \$7 every body thought they were high-priced, and it cost more to raise them than it does now.

Prominent live stock commission firms at Chicago and other western markets advise stockmen having hogs and proper facilities for handling cattle during cold, stormy weather to hold on to their cattle up to January at least. One widely-known firm advises stockmen to keep topping off the fat stock. "If you have several loads of well-fatted beefs, ship one, two or three loads instead of the whole string at one time. This not only divides the risk, but buyers do not have so much opportunity to dominate the market."

Watch for the New Serial Story
which starts in December 17
issue. It alone will be worth the
price of a year's subscription.

THIS IS THE LAST EDITION.

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

DETROIT LIVE STOCK MARKETS.

Thursday's Market.

December 1, 1910.

Cattle.

Receipts, 1,207. Market 10@15c lower than on last Thursday; run will be heavy. We quote: Best steers and heifers \$5.50; steers and heifers, 1,000 to 1,200, \$5.25@5.35; steers and heifers, 800 to 1,000, \$4.50@5.10; steers and heifers that are fat, 500 to 700, \$4@4.40; choice fat cows, \$4@4.50; good fat cows, \$3.50@3.65; common cows, \$3@3.25; canners, \$2@2.75; choice heavy bulls, \$4@4.15; fair to good bolognas, bulls, \$3.50@3.75; stock bulls, \$3.25@3.50; choice feeding steers, 800 to 1,000, \$4.25@5; fair feeding steers, 800 to 1,000, \$4@4.15; choice stockers, 500 to 700, \$4@4.25; fair stockers, 500 to 700, \$3.50@4; stock heifers, \$3.25@3.50; milkers, large, young, medium age, \$4@60; common milkers, \$25@35.

Roe Com. Co. sold Hammond, S. & Co. 1 cow weighing 1,270 at \$3; 1 bull weighing 1,270 at \$3; to Mich. B. Co. 10 cows av 923 at \$3.75, 25 steers av 1,084 at \$5, 4 cows av 1,117 at \$4; to Sullivan P. Co. 1 bull weighing 1,970 at \$5, 4 do av 806 at \$3.75, 3 steers av 923 at \$5.15; to Mich. B. Co. 2 bulls av 1,225 at \$4.25; to Rattkowsky 2 cows av 935 at \$4, 1 do weighing 730 at \$2.75; to Hammond, S. & Co. 1 do weighing 880 at \$3.50, 1 bull weighing 700 at \$3.75, 4 cows av 1,100 at \$3.75, 5 do av 948 at \$2.75, 1 do weighing 1,000 at \$3, 1 heifer weighing 750 at \$4.50; to Newton B. Co. 19 butchers av 760 at \$4.50, 2 cows av 1,085 at \$4, 1 do weighing 900 at \$3.25; to Regan 8 butchers av 609 at \$3.75; to Mohr 29 do av 790 at \$4.75.

Bishop, B. & H. sold Kamman 8 heifers av 677 at \$3.75, 5 steers av 950 at \$4.75, 1 bull weighing 1,180 at \$4.25; to Mich. B. Co. 2 cows av 925 at \$3, 5 butchers av 820 at \$4.25, 3 cows av 1,077 at \$3.50, 3 bulls av 953 at \$4; to Gerish 22 steers av 1,051 at \$5.40; to Hammond, S. & Co. 4 cows av 832 at \$2.90, 1 bull weighing 1,560 at \$4.25, 3 heifers av 633 at \$4.10, 2 bulls av 1,250 at \$4.15, 3 cows av 1,000 at \$3.75, 3 do av 883 at \$3.25, 3 steers av 666 at \$4; to Sullivan P. Co. 9 butchers av 602 at \$3.40, 8 do av 450 at \$3.40, 9 steers av 1,064 at \$5.40, 4 do av 857 at \$4.75, 2 cows av 1,185 at \$4, 1 bull weighing 1,170 at \$4; to Regan 8 heifers av 608 at \$4; to Fromm 11 butchers av 618 at \$3.90; to Applebaum 2 do av 840 at \$4, 7 do av 809 at \$4.25; to Kamman 6 do av 611 at \$4; to Goose 7 do av 380 at \$3.50; to Sullivan P. Co. 9 stockers av 564 at \$3.60, 2 bulls av 1,140 at \$4, 3 do av 850 at \$3.75, 3 cows av 850 at \$2.50, 7 steers av 861 at \$4.25, 3 cows av 1,090 at \$3.75, 2 do av 1,200 at \$4.25; to Heinrich 22 steers av 1,074 at \$5.35; to Brost 14 feeders av 871 at \$4.85; to Sullivan P. Co. 9 steers av 1,030 at \$5.40, 8 butchers av 943 at \$4.25, 1 bull weighing 1,140 at \$4.25, 7 steers av 983 at \$4.75; to Parker, W. & Co. 6 cows av 1,075 at \$3.35; to Fromm 8 butchers av 783 at \$3.85; to Hammond, S. & Co. 3 butchers av 690 at \$4, 2 bulls av 990 at \$4, 2 heifers av 435 at \$3.

Haley & M. sold Mich. B. Co. 3 butchers av 1,000 at \$4.20; to Hammond, S. & Co. 1 cow weighing 920 at \$3, 1 do weighing 960 at \$4, 1 do weighing 1,150 at \$2.75, 1 do weighing 920 at \$3, 1 bull weighing 1,370 at \$4, 2 butchers av 850 at \$4.25, 1 steer weighing 950 at \$4.75, 2 cows av 1,095 at \$3.50, 2 do av 1,015 at \$3; to Rattkowsky 8 butchers av 703 at \$4.

Spicer & R. sold Sullivan P. Co. 1 bull weighing 1,030 at \$4, 2 heifers av 430 at \$3.50, 13 steers av 1,020 at \$5; to Regan 5 heifers av 612 at \$4; to Breitenbeck 29 butchers av 814 at \$4.85, 1 cow weighing 1,050 at \$4.25, 15 do av 1,009 at \$3.50, 2 do av 830 at \$4.50; to Kull 20 butchers av 855 at \$4.65, 2 bulls av 800 at \$4; to Bresnahan, Jr. 6 stockers av 683 at \$4, 1 do weighing 589 at \$3.50; to Hammond, S. & Co. 4 cows av 1,132 at \$3.40, 1 bull weighing 900 at \$4; to Sullivan P. Co. 10 steers av 1,073 at \$5.35; to Lachalt 14 do av 923 at \$4.35; to Mich. B. Co. 31 butchers av 790 at \$4.25, 31 do av 839 at \$4.25; to Fry 10 do av 776 at \$4.40, 2 cows av 920 at \$3.50; to Marx 19 steers av 863 at \$4.60; to Brost 6 feeders av 956 at \$5.15, 2 do av 935 at \$5.15; to Mich. B. Co. 25 heifers av 792 at \$4.50, 1 bull weighing 980 at \$4; to Regan 13 butchers av 608 at \$4; to Kamman 4 cows av 1,075 at \$4, 20 steers av 829 at \$4.70; to Bresnahan 10 do av 697 at \$4; to Breitenbeck 1 bull weighing 790 at \$4; to Goose 2 cows av 965 at \$2.75.

Leach sold Kamman 7 cows av 914 at \$4, 2 do av 835 at \$3.

Long sold Mich. B. Co. 4 steers av 750 at \$4.25.

Merritt sold Sullivan 4 butchers av 735 at \$3.85.

Johnson sold Schuman 5 butchers av 654 at \$4, 2 bulls av 915 at \$3.75, 4 steers av \$15 at \$5.25.

Receipts, 496. Market steady at last week's prices. Best, \$9@9.50; others, \$4.50@8.50; milch cows and springers steady.

Leach sold Newton B. Co. 3 av 165 at \$6, 10 av 151 at \$9.

Long sold Sullivan P. Co. 1 weighing 120 at \$5, 4 av 130 at \$9.50.

Merritt sold Parker, W. & Co. 3 av 140 at \$9.

Kendall sold Burnstine 11 av 135 at \$8.50.

Belheimer sold same 6 av 140 at \$9.

Roe Com. Co. sold Mich. B. Co. 13 av 135 at \$9, 5 av 140 at \$9, 13 av 145 at \$9.25.

Spicer & R. sold Mich. B. Co. 6 av 135

at \$9.25; to Parker, W. & Co. 4 av 130 at \$9; to Brost 8 av 135 at \$8.50; to Breitenbeck 8 av 150 at \$7.50, 10 av 143 at \$9; to McGuire 2 av 115 at \$8, 6 av 135 at \$9; to Breitenbeck 10 av 135 at \$8.60; to Goose 3 av 250 at \$4.50.

Receipts, 4,817. Market 15@25c higher than last week on good grades; common dull.

Best lambs, \$6.15@6.25; fair to good lambs, \$5.50@6; light to common lambs, \$5@5.50; fair to good sheep, \$3.50@4; culls and common, \$2.50@3.

Long sold Sullivan P. Co. 5 sheep av 70 at \$2.50, 11 mixed av 82 at \$4.25, 29 lambs av 55 at \$5.50.

Votner sold same 22 sheep av 90 at \$4.35, 10 do av 91 at \$3.

Adams sold Nagle P. Co. 11 sheep av 95 at \$2.75, 160 lambs av 78 at \$6.

Belheimer sold Barlage 14 sheep av 120 at \$3, 36 lambs av 85 at \$6.

Bishop, B. & H. sold Hammond, S. & Co. 9 lambs av 58 at \$5.25, 30 do av 55 at \$5.50, 18 do av 68 at \$5.75; to Applebaum 15 sheep av 100 at \$4; to Nagle P. Co. 28 do av 90 at \$2.25, 202 lambs av 90 at \$6.25, 47 do av 91 at \$6.25, 44 do av 88 at \$6.25, 89 do av 83 at \$6.10, 38 do av 68 at \$6, 27 do av 82 at \$6.25, 36 do av 78 at \$6.25, 18 do av 90 at \$6.15, 43 do av 82 at \$6.25; to Sullivan P. Co. 34 do av 60 at \$5.50, 43 do av 60 at \$5.75, 15 sheep av 65 at \$3.75; to Hammond, S. & Co. 29 lambs av 80 at \$5.25, 42 sheep av 85 at \$3.50; to Fitzpatrick Bros. 69 lambs av 80 at \$6.10, 17 do av 60 at \$5.25, 8 sheep av 90 at \$3, 57 lambs av 80 at \$6; to Thompson Bros. 25 do av 55 at \$5.50.

Roe Com. Co. sold Nagle P. Co. 325 lambs av 80 at \$6.15, 24 do av 75 at \$6, 26 do av 75 at \$6, 4 sheep av 140 at \$3.25; to Sullivan P. Co. 28 do av 85 at \$3.25; to Mich. B. Co. 43 do av 100 at \$3.30, 66 do av 115 at \$3.65; to Newton B. Co. 13 do av 110 at \$3, 106 lambs av 75 at \$6.

Merritt sold Newton B. Co. 38 lambs av 75 at \$6, 7 sheep av 95 at \$2.75.

Terhune sold same 27 lambs av 80 at \$6.

Spicer & R. sold Stocker 8 yearlings av 85 at \$4.50, 17 lambs av 57 at \$5.60; to Nagle P. Co. 111 do av 75 at \$6.75; to Mich. B. Co. 42 do av 58 at \$5.85, 16 do av 55 at \$5.50, 6 sheep av 100 at \$3.60, 59 lambs av 60 at \$5.80; to Hammond, S. & Co. 57 do av 83 at \$6.15, 7 do av 58 at \$5.50; to Sullivan P. Co. 37 do av 85 at \$6.15; to Breitenbeck Bros. 9 do av 73 at \$6, 14 sheep av 90 at \$3.25; to Barlage 29 do av 120 at \$3.25, 3 do av 95 at \$2.50, 20 lambs av 82 at \$6.25.

Hogs. Receipts, 5,366. Market 20@30c higher than last Thursday.

Range of prices: Light to good butchers, \$7.30; pigs, \$7.25@7.35; light yorkers, \$7.30; stags one-third off.

Roe Com. Co. sold Sullivan P. Co. 550 pigs av 200 at \$7.30.

Haley & M. sold same 270, do av 180 at \$7.30.

Sundry shippers sold same 370 do av 180 at \$7.30.

Bishop, B. & H. sold Parker, W. & Co. 3,553 av 180 at \$7.30.

Haley & M. sold Hammond, S. & Co. 241 av 155 at \$7.30.

Spicer & R. sold same 685 av 190 at \$7.30.

Sundry shippers sold same 482 av 185 at \$7.30.

Sundry shippers sold same 370 do av 180 at \$7.30.

Bishop, B. & H. sold Parker, W. & Co. 3,553 av 180 at \$7.30.

Haley & M. sold Hammond, S. & Co. 241 av 155 at \$7.30.

Spicer & R. sold same 685 av 190 at \$7.30.

Sundry shippers sold same 482 av 185 at \$7.30.

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Do you want an established business in a small town 30 miles from Detroit, in a good farming district. Profits average \$2,000 a year. \$5,500 will buy 3-acre of land. Good buildings and a general stock of groceries, shoes, clothing, small farm tools etc. No old stock. The price is very low. Write for particulars. THOS. F. NORRIS, Real Estate agent, 200 Randolph Street, Detroit, Michigan.

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People who know what a good razor is know that the J. A. Henckel's razor is the best made. There was never a Henckel's razor sold for less than \$2.00 and often they sell for \$3.00. By buying 1,000 of them we got them so that we can sell them to our subscribers for \$1.50 each.

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FARMS AND FARM LANDS FOR SALE OR EXCHANGE

Farms For Sale—\$35 to \$100 per acre. Stock Dairy and Truck farms. D. R. REES, 724 Dollar Bank Building, Youngstown, Ohio.

\$4,000 buys 117-a. river farm. 40-a. river flat, large dwelling with tenant house, 3 large barns hog, hen house, blacksmith shop all abundant timber, fruit & water. 1/2 m. school, creamery, church & R. R. town, 1/2 cash, bal. time. Valley Farm Agency, Owego, N. Y.

Choice Farm 120 ACRES situated in the village of South Lyon, to be sold at auction on Dec. 10 also one of 70-a situated on sec. 18, Salem Township. For particulars enquire of J. H. SAYRE, South Lyon, Michigan.

I SELL FARMS in Oceana, best County in United States. Fruit, Grain, Stock, Poultry. Write for list. J. S. HANSON, Hart, Mich.

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that will make you a good living and at the same time will increase in value from year to year, write

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comfortable living, enjoyment and genial climate. Famous for fruit and quite as good for general farming. Land values are advancing, but farms are cheaper than elsewhere with equal advantages—if such a place exists. For information address

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Fertile Farms in Tennessee

\$5 to \$10 per acre

Fortunes are being made on fertile Tennessee farms raising big crops of grain and grasses of almost every kind, also Cantaloupes, Cabbages, Tomatoes, String Beans, Green Corn, etc., also Horses, Cattle, Sheep, Swine, Poultry and Eggs. Write me at once for Free Literature, which advises how to get one of these splendid farms for \$5 to \$10 per acre. Act quickly! H. F. Smith, Trst. Mgr. N. C. & S. L. Ry. Dept. F, Nashville, Tenn.

Good Southern Michigan Farm At Sacrifice!

280 acres, good soil, running water, splendid meadow. Good buildings. Worth \$100 per acre. Will sacrifice at \$75. Reasonable terms. Address Scandinavian Canadian Land Company, 172 Washington Street, Chicago, Ill.

150 Acres All Equipped, \$1,200.

Income \$745 besides produce consumed by owner's family; 50 acres tillage; juicy pasture for 18 cows; 1000 cds. hard wood can be marketed in Center at \$5 per cord; orchard produces 80 bush. in season; attractive 7-room painted house with spring water; big barn, wagon shed, poultry and sugar houses; owner having other business will sacrifice for quick sale and will include pair of horses, 3 cows, sugar-making and farming equipment for only \$1,200, part cash; here's a splendid chance for a man with a little money to get out into God's country, be happy, independent, make money and keep his family in comfort and plenty; read all the details of this and another of 47 acres for \$600, page 18, "Street's Biggest Farm Bargains," copy free. E. A. STROUT, Station 103, Union Bank Building, Pittsburg, Penna.

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HORTICULTURE

COLD STORAGE FRUIT AT THE STATE FAIR.

The exhibit of fruit at the Michigan State Fair has, for several years, been handicapped by the early date at which the fair has been held, as this has necessitated picking the fruit during the last days in August, before it has reached its full development in size, and while it is still quite green in color. Visitors were, as a result, given a false impression as to the size and color of Michigan-grown fruit. To correct this, and for the further reasons of improving the general appearance of the exhibit, and of learning the adaptation of the different fall and winter sorts for cold storage, a special class for fruit of 1909, carried in cold storage, was arranged for the fair of 1910.

Exhibitors were directed to gather the fruit as soon as the stems would separate readily from the fruit spurs, taking great care not to injure it in the least. It was then double wrapped in medium weight print paper, packed in bushel boxes and

the second list would undoubtedly come out in good condition in April, which is as late as fruit is generally carried in cold storage.

Mich. Agri. College. L. R. TAFT.

FALL PRUNING—I.

Now that the apples, potatoes, and corn are out of the way we are turning our attention to pruning the old apple trees. We still have a part of one rented orchard that has not received attention in the way of pruning, partly because we did not have the time to get over all of it last year, and partly because there were quite a number of trees of doubtful worth and doubtful varieties in this part of the orchard, and we wished to know what the season would bring forth. This fall we marked the seedling trees and branches which we wished to remove, while the fruit was on. We also have quite a number of trees in one or two orchards which will need to be taken out. This can be done during the winter when it is too cold or windy to prune to advantage. These trees were injured by fire, scale, and other causes so we did not think them worth caring for until after observing them for a season or two.

right it would be better, as the tree could be trained downward better, but they will become more horizontal after bearing. In pruning, those that are somewhat horizontally inclined and come from the side of the limbs rather than the top, may be left. This will help to keep the tree low. Some hang weights on the sprouts to give them a declining habit until this characteristic is fixed.

In a following article on this subject we will take up the pruning of old, neglected orchards, and I trust that the reader will have in mind the remarks in this paper treating of the removal of some of the trees that interlock branches, or in some cases the removal of the branches may suffice, though it is usually better to sacrifice an entire tree and leave its neighbors with a good shape than to cut them all back to make room and light, but this will depend upon circumstances. I would also have the ideas concerning water sprouts kept in mind, namely, that they may be the future framework for a renewed top, that they will bear good fruit in a few years if kept thinned so the light can get in, that they should be chosen with a view to a horizontal growth so as to lower the tree, that they will gradually decline with bearing, and that they may be brought down by weighing them if necessary. Many of these principles will also apply to the smaller branches of the tree, and should be considered in the pruning, keeping in mind continually the three basic principles of pruning an old tree; namely, to lower the tree if it is too high, to thin out the branches where too thick, and to train in branches to thicken or fill out open places in the tree, so as to increase its bearing surface without increasing its height or decreasing the light. We shall consider these principles more fully in the next article.

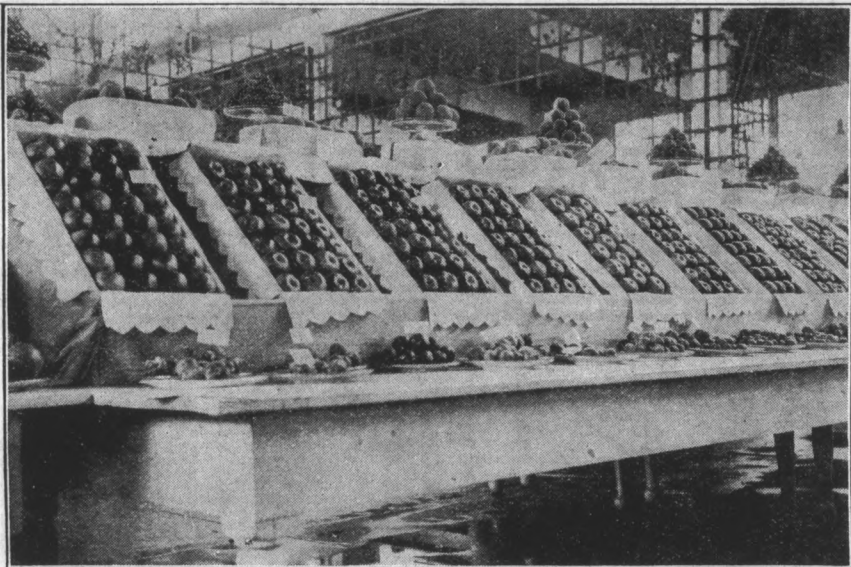
Calhoun Co. S. B. HARTMAN.

LEAKS IN THE GARDEN WORK.

If pains were taken to stop some of the leakages that are constantly going on, not only in truck but general farming also, there is no doubt but that the profit side of the ledger would, in the great majority of cases, make a much better showing than is ordinarily the case. I grant that labor is high and that time, more than ever before, is money. I also grant that most of us follow far too closely the plan of caring for the main swath and letting the gleanings, the odds and ends, care for themselves.

Go over the gardens, truck farms, and even those devoted to general farm enterprises, and the chances are that on most of them at this time of year will be seen much going to waste that might have been utilized in some more profitable way than being scattered over the ground to lie during the winter. On all gardens and truck farms especially, there are usually quantities of over-grown beets and radishes or immature squashes, pumpkins and cabbages that are worse than thrown away. Worse, I say, because they are a positive detriment to the soil. There is no doubt that many of the insect pests as well as fungus diseases, are nursed and fostered in this manner. One of the most fruitful sources of the spread of club root in cabbage and other members of the crucifera family is the ruinous practice of leaving diseased cabbages on the ground where grown. The spores are readily carried by the feet or cultural tools or by the wash of the surface water and readily find lodgement in unfested soil and thus the disease spreads and becomes nearly impossible to control. The danger will not be averted by feeding the diseased vegetable as the germs will be spread in the manure of the stock and even in this condition are still active. The only safe remedy is to burn or boil them; and their destruction will be stopping leaks in the right direction. But all the immature or overgrown vegetables should be gathered and when not diseased, fed to the cattle, pigs or poultry, and the roughage as well. The cattle will at any time relish the vegetable tops, and the loose cabbage heads are one of the best winter feeds for poultry. All this should be gathered for the "land's sake," to say nothing of the feeding value.

There is another woeful leakage that many of us are suffering from, and that is attempting to grow crops on half-fed ground. Culture will, of course, help us out much; but it will not do all. I have been "paying the fare" and know whereof I speak. Some of the ground which I now have in charge, judging from appearances, had not been manured since the memory of man runneth not to the contrary. Two years ago I began putting on



Some of Michigan's 1909 Crop of Apples on Exhibition at State Fair in September, 1910, Nearly Twelve Months After Harvesting.

shipped at once to the Detroit Cold Storage Company's warehouse where it was placed in a room which was kept at a uniform temperature of 31 degrees. As an occasional casual examination of some of the boxes indicated that it was keeping nicely, the fruit was not disturbed until it was taken to the fair grounds.

On opening the boxes it was found that although nearly twelve months had elapsed since the fruit was picked, there was practically no decay and that only a comparatively few specimens had begun to soften. Of twenty-four varieties, eight, in color and firmness, did not differ materially from the ordinary appearance of the same varieties in January, being practically perfect in every respect except that the flavor was lacking to some extent. The list included Bailey Sweet, Fameuse (Snow), Jonathan, Sutton, Red Canada, Hubbardston, Arkansas Black and Mele.

There was also a number of kinds which showed only a slight discoloration of the skin. Among these were, Stark, Winter Banana, King, Northern Spy and Grimes. Some of the specimens in this group were slightly discolored about the core, and most of them had suffered considerably from loss of flavor, although the texture and flavor of the Stark had really been improved.

Ben Davis, Gano, Mann and R. I. Greening showed considerable scald upon the skin, but the flesh was firm and held retained its color well.

Although they had not scalded, McIntosh, Westfield, Seek-no-Further, Esopus Spitzenburg, Shackelford and Wagener showed a skin from which the color had faded and they were decidedly dull and unattractive in appearance, while the flesh was beginning to soften.

Of all the kinds in storage none had suffered more than Baldwin, of which very few specimens were in fit condition to place upon the tables.

The varieties named in the first list seem well adapted for cold storage purposes and as the first six are possessed of high flavor, they seem well adapted for planting in commercial orchards where they will have favorable conditions and receive good care. While they did not make as good a showing, the varieties in

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manure, and had I doubled or trebled the quantity it would have been a profitable investment. In average crops there is little, if any, profit, and more often than otherwise it is at a loss. I had some ground this past season planted in potatoes. It was not a blooming success although portions of it grew a fair crop; but I learned after much of the work had been done that mine was the sixth successive crop grown on the ground without manure enough in the whole six years to soil the surface of the ground. Well, "labor has its reward"—sometimes. Another little patch of ground between the stable and fence was planted, only 12x15 feet all told, but having been covered year after year with manure from the stable it was very rich and grew more potatoes to the foot than the other ground grew to the rod. In conversation with one farmer this fall, I told him what cowpeas would do for his soil, but he thought it would be expensive to lay out of the use of the land for a year. Well, it was not the case, for wheat could follow the cowpeas the same season and the wheat would doubtless have done the talking. We sometimes think that two tons of fertilizer would be an awful dose for the land. But it is often used and the crops grown speak for themselves.

Wayne Co.

J. E. MORSE.

PEACH YELLOWS AND LITTLE PEACH.

These two diseases which have caused considerable trouble to peach growers throughout the country, seem to be an added menace to the industry. The New Jersey Station after careful study has issued the following suggestions for the prevention and control of the yellows and little peach:

Select a well drained site for the orchard, purchase well grown nursery trees of a medium to large grade, and avoid weak trees and those grown near an infested orchard. Practice good orchard management in the form of proper cultivation and sufficient fertilizers, but do not fertilize to excess, especially with nitrogenous manures. Closely observe the growth of each tree and if symptoms of either disease appear, dig up and burn at once. Trees removed in orchards from one to five years old may be replaced by nursery trees, but in older orchards this replanting is of doubtful value, as the young trees will be retarded in their growth by the surrounding trees.

PROGRAM AT BENTON HARBOR MEETING.

At the fortieth annual meeting of the Michigan Horticultural Society, which is to be held at Benton Harbor, Dec. 6-8, the following program will be given:

Tuesday, 10:00 A. M.

Results from Spraying the Past Season, Frank A. Wilken, Supt. South Haven Ex. Station.

A Sulphur Series of Spray Mixtures, Prof. M. B. Waite, of U. S. Dept. of Agriculture.

Tuesday, 1:30 P. M.

More Money for the Apple Crop, Prof. H. J. Eustace, M. A. C.

My Experience with Apples, Miss Grace Taylor, Douglas.

Apple Culture, W. W. Farnsworth, Waterville, Ohio.

Tuesday, 6:30 P. M.

Annual Banquet will be held in the Armory.

Wednesday, 9:00 A. M.

Competitive five-minute talks by Senior Horticultural Students at M. A. C.

Co-operation for Fruit Growers, N. S. Crane.

Apple Scab, F. C. Dayharsh.

Cover Crops, Geo. W. Dewey.

Value of a Practical Knowledge of Plant Diseases, B. W. Keith.

Pruning, Chas. B. Tubergen.

Poisons in Lime-Sulphur, K. D. Van Wagener.

Home Forcing of Vegetables for Winter Use, J. G. France.

Plant Breeding, L. B. Scott.

Peach Culture, T. A. Farrand, Eaton Rapids.

Wednesday, 1:30 P. M.

My Method of Growing Peaches, O. W. Brame, Grand Rapids.

Cherries and Peaches for Profit, Paul Rose, South Frankfort.

Peach Diseases and the Re-establishment of Young Orchards in Michigan, Prof. M. B. Waite, Dept. Agril.

Wednesday, 7:30 P. M.

Presentation of visitors and delegates from other states and local societies.

The People's Play Grounds, Hon. Chas. W. Garfield, Grand Rapids.

Michigan Orchards (illustrated), John I. Gibson, Traverse City.

Program of music and readings.

Thursday, 9:00 A. M.

Commercial Insecticides and their Control, Prof. L. R. Taft, M. A. C.

New Phases of Nursery Inspection, Prof. J. G. Sanders, Madison, Wis.

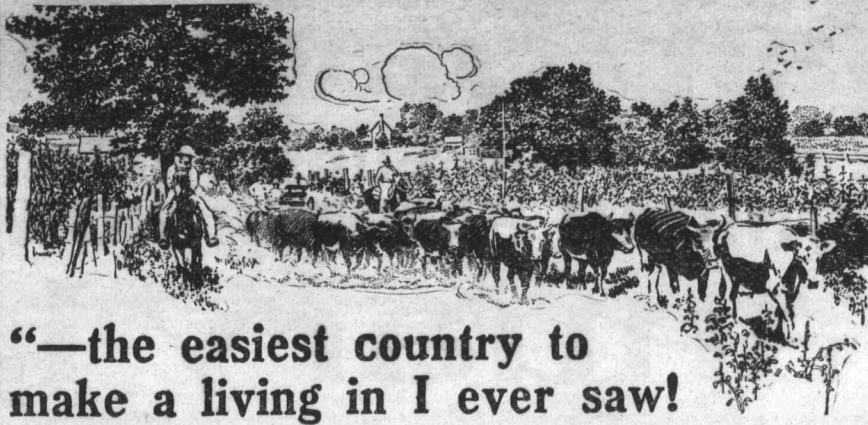
Bugs, Prof. R. H. Pettit, M. A. C.

Thursday, 1:30 P. M.

Growing of Cantaloupes, Paul Rose, So. Frankfort.

Small Fruits, W. W. Farnsworth, Ohio.

Problems in the Making of the Commercial Lime-Sulphur Solution, Prof. A. J. Patten, M. A. C.



"—the easiest country to make a living in I ever saw!"

Joe Ward of Paragould, was speaking of his part of Arkansas but if he had been telling about Arkansas and East Texas as a whole, he couldn't have put it better. If you would transfer your efforts to the cheaper, richer land there, you would be surprised at the difference in your income. The main cause of the big profits in Arkansas and East Texas is the low price of land. It stands to reason, that \$30 corn from \$10 per acre land (such as Mr. Hurd of Lewisville, Ark., speaks of in our book)—that \$150 truck and fruit crops from \$10 to \$25 per acre land (such as Mr. Story of East Texas refers to) is bound to get you ahead quicker than the same crops from high priced land, where you now are. I have known case after case of crop raising in

Arkansas & East Texas

where the first yield paid for the land, with a margin to spare. Most anywhere there you can buy raw land at \$5 to \$10 per acre and some of the best cultivated land at \$10 to \$30. And Arkansas and East Texas are normal sections, like yours, with a normal climate and normal conditions. All the staple crops, as well as fruits and truck, yield as much or more there than where you are, on land that cost a fourth or half as much as yours. The climate lets cattle graze all year. On the Murray Phillips farm, Judge Stacy pointed out 120 cattle grazing, and said: "That bunch will be ready for market in May and they've never eaten a grain of corn, except what they found in fields after crops had been gathered. They'll not cost Phillips more than \$19 a head and will bring \$55 to \$63 each."

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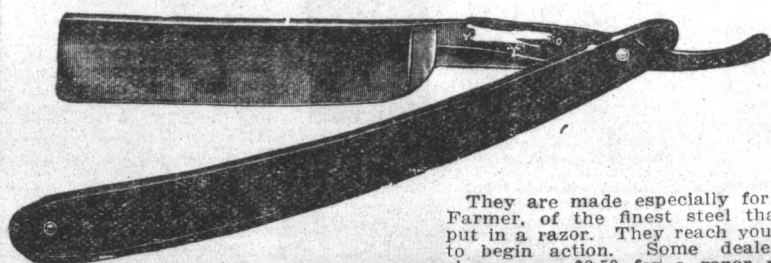
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News Grand Rapids, Mich.	2 00	2 00	1 50	
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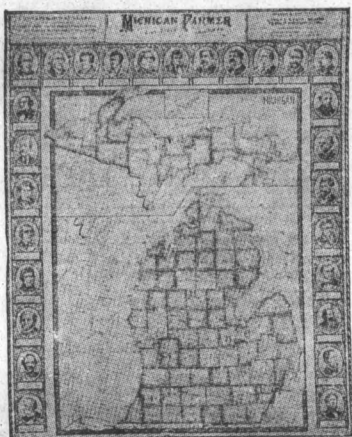
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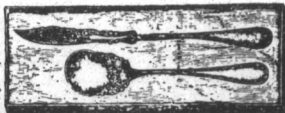
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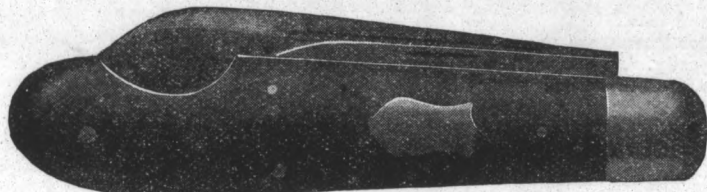
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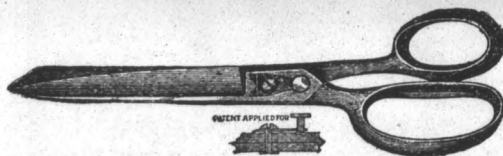
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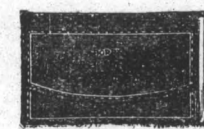
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POULTRY AND BEES

FEEDING MEAT AND BONE TO LAYERS.

In some sections of the country local meat markets are encouraging the use of meat scrap and cut bone by converting meat and bone which otherwise would be wasted, into poultry food and urging it upon their egg-producing customers. For producers living near such markets this is probably the cheapest and most satisfactory way of securing the protein needed to balance the grain which they are feeding. It especially commends itself to those who keep only a few fowls and therefore do not feel warranted in buying a machine for preparing the food at home. The essential point, though, in feeding either meat or bone is in having it sweet and fresh. Consequently where a supply of the raw material is available it will pay even the small producer to be equipped for preparing this material for his hens. With a good bone cutter at hand he is in position to supply protein in the very best possible form and condition. Where it seems impractical to secure this essential food in either of the ways mentioned it may be obtained from dealers in poultry supplies. The commercial animal or protein feeds, known as meat scrap, beef meal, blood meal, etc., are waste products of the large packing houses which are so treated that they will keep for a considerable time. While probably not so satisfactory as fresh meat and green bone right from the cutter, these products make a good substitute, although it must be admitted that their feeding value is greatest when in their natural state.

It is an easy matter to bring about digestive troubles by feeding too much of these foods, and it is therefore necessary to guard against this danger. Where the fowl have lived upon grain almost entirely for the past month or two the feeding of meat and bone must begin gradually. For the first week $\frac{1}{2}$ lb. of the fresh product, given every other day, will be enough for 10 or 12 hens. This can be increased until each fowl is receiving about 4 or 5 ozs. per week. Hens that consume considerable quantities of grain may require even more than this, but it is inadvisable to give these products in too liberal quantities as it is hard to feed them so that each hen will get her proper share and no more. Because of this, many poultrymen practice mixing the animal food with the grain ration. Others mix the cut bone as soon as prepared with dry bran, placing the mixture in a trough having slats nailed across the top, as this insures a more even division of the food and there is less of the mixture wasted.

GETTING EGGS IN COLD WEATHER.

While the main reason for the lack of early winter eggs is the failure to provide early pullets that will begin laying in October or November and continue the entire winter, a good many failures can be traced to improper feeding. Pullets hatched in April and May, if properly taken care of and provided with proper food, should commence laying before real cold weather sets in. If they do not start laying at this time they are likely to put it off until spring, thereby causing the loss of the profit you would derive from the eggs by selling at top prices in December and January, for February usually sees a decline in prices.

A diet of grain exclusively will not tend to start the pullets laying. One of the feeds should consist of ground grains, properly balanced, to which is added beef meal or commercial beef scrap. This is invaluable where the pure beef scraps cannot be obtained. This mash should consist of the following in the proportions given: 100 lbs. bran; 100 lbs. middlings; 100 lbs. coarse corn meal; 100 lbs. ground oats; 100 lbs. alfalfa meal; 100 lbs. beef scraps; 60 lbs. linseed meal. These are all thoroughly mixed together. Take one quart of this mash for every ten hens, place it in a kettle and moisten with boiling water. Then cover tightly and place on back of stove to steam until noon, when it should be fed. Feed in a dry, crumbly state, just warm, not hot. Commercial beef scrap costs here 3c per lb. in 100-lb. lots, which I think is very reasonable, considering the increase which it produces in egg yield. A pound, or possible a little more, should be fed each day to about 50 hens. The

cost, therefore, is about 3 or 4c a day. If these 50 hens produce only one egg more a day the beef scrap pays for itself. But you will not only secure one egg more a day; your egg yield, you will find, will be considerably increased.

Some poultrymen prefer to feed the mash in the morning, and a few feed it in the evening, but I consider noon the best time for soft feed. If fed in the morning the hens will fill their crops with very little effort and will probably spend the rest of the morning sitting around, while, on the contrary, they should be scratching for their feed and getting the exercise which is necessary for their health and a good egg yield.

The morning feed should consist of oats and wheat, which can be fed mixed, or you can give oats one day and wheat the next. This is scattered in the litter, which should be 8 or 10 inches deep, after dark, so that they can scratch for it as soon as they leave the roost in the morning. This exercise will immediately warm them up, while, on the contrary, if the grain is scattered in the litter in the morning the hens will stand around in the cold, doing nothing, until the attendant arrives.

The evening meal should consist entirely of whole corn, which is also thrown in the litter. This is fed about an hour before dusk to give the fowls ample time to pick it up while it is still light. It is my opinion that whole corn is the proper feed at this time. As corn is heating it tends to keep the fowls warm through the long cold night. Another reason is that as the night is the longest period between feeds, and as corn takes longer for the fowl's gizzard to grind, it should be fed at this time, if at all.

Green feed of some kind must be provided if a good egg yield is to result. Cabbages, which are usually to be had in the early winter, are excellent. They may be cut into halves and thrown into the pens the first thing in the morning. After these give out, beets, turnips, mangel-wurzels, raw potatoes, etc., may be fed, all of which are relished. The beets and mangel-wurzels may be split lengthwise and hung on wires or nails, high enough to make the fowls jump. This affords exercise. The raw potatoes may be ground in a food chopper and mixed with the mash. They should, however, be first placed in the oven to draw off some of the dampness. The alfalfa meal, which is also mixed with the mash, makes an excellent green food.

Fresh, clean water must be constantly supplied. The water vessels should be emptied each night to prevent freezing in extremely cold weather. In the morning they must be filled with slightly warmed water.

Indiana. O. E. HACHMAN.

THE POPULATION OF THE HIVE.

The number of bees in a colony varies greatly at different periods of the year. In the spring, after a long winter, the colony may number only a few thousand, while during the height of the honey flow there may be a hundred thousand or even more. This marvelous increase is brought about by the rearing of young bees in spring and summer. As soon as it begins to get warm in the spring, the queen begins to lay eggs in the cells of the combs in the center of the hive, but only in such numbers as the few thousand old bees that have lived through the winter can cover and keep warm and feed. As the young bees hatch, adding to the numbers of the colony, the queen lays eggs in increasing numbers until the swarm is at its maximum size.

The standard Langstroth frame is $9\frac{1}{4} \times 17\frac{1}{8}$ inches in size. Worker cells average five to the inch, and all foundation is manufactured that size. There are, therefore, not counting the imperfect cells around the edges, approximately 7,800 cells upon the two sides of a comb in a Langstroth frame, or in an eight-frame hive about 60,000 cells, or in a ten-frame hive 78,000 cells. It is rarely that the bees build all combs fully to the bottom of the frames; and then, too, the bees generally use the cells in each frame, for an inch or so from each end and from the top down, for storing honey and pollen. The two outside frames are generally used for the same purpose, leaving only the center of the hive for rearing brood—probably not more than half of the cells in the hive. They do this for the reason that the middle of the hive is the warmest, the honey acting as a non-conductor, thus protecting the young brood.

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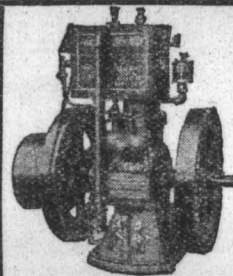
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Taking into consideration the vast number of cells in a hive, one can readily see how rapidly the colony can increase if it has a young and vigorous queen. It has been estimated that the queen lays her own weight in eggs daily during the height of the honey flow. A queen may live, and be prolific for four or more years, but it is generally best to re-queen every second year. The worker is the sexually undeveloped female. Its life is not much over six weeks during the honey-gathering season, but the young worker bees that are hatched in the fall live over winter, rear the first brood, and gather the first honey and pollen the following spring. The drones are the males of the hive, and are never permitted to live over winter unless in a queenless colony. The drone gathers no honey, and does no hive work. They are reared only to mate with the young queens, and when they are no longer needed they are rudely pushed from the hive to starve to death. When drones appear in early summer, it is a pretty good sign that the bees are preparing to swarm. Drones are hatched in cells larger than the worker cells, running four to the inch instead of five. By using full sheets of foundation for the frames in the brood chamber, one can get the bees to build nearly all worker cells, thus adding to the strength of the hive in worker bees, and saving the feeding of a useless number of drones during the summer.

In a normal colony, during the honey season, it takes about 10,000 bees to do the hive work; that is, to feed the larvae, secrete the wax and build the comb to ventilate the hive, etc. In a fair-sized colony of 60,000 bees there would be 50,000 field workers, while in a colony of 20,000 there would be only 10,000. The colony of 60,000 would, therefore, be worth five swarms of 20,000 for gathering honey. It can be readily seen why the motto of the apiculturist is, "Keep all swarms strong." If you have weak swarms, and want honey, unite them.

As the old bees seldom winter over, every colony should go into winter quarters with plenty of young bees. What is called "spring dwindling" is often only the natural death of the old bees before the rearing of brood provides young bees to take their places. Had the swarm had plenty of young bees in the fall, this would not happen. If a colony is strong in late summer and early fall, and is storing plenty of honey, it will hatch young bees late. Colonies that are not strong should be united early in the fall and given enough stores to take them through the winter safely. Stimulative feeding in the early spring will start the rearing of brood early, and make such colonies strong in honey gatherers.

How Brood Rearing May be Hurried.

Oftentimes the brood chamber is doubled in capacity by placing a second hive body on top of the first, thus hastening the rearing of brood. When the honey flow comes on this second hive body is removed, first shaking and brushing the bees into the hive beneath. This causes the hive to overflow with bees, retards brood rearing, lessens the number of bees required for hive work, and so contracts the brood chamber that the bees are forced into the supers which are placed upon the hive for either comb or extracted honey. The brood in the hive body removed may be given to weaker colonies to strengthen them. Young bees up to fourteen to seventeen days old do the hive work, and the older bees the field work, so that one should time the rearing of brood to have the hive overflowing with field workers as the honey flow comes on. The time for this will vary according to what is the great honey plant of that particular section. Young bees hatched from eggs laid about the time the honey flow comes on will not be of any great value as honey gatherers, so that the contracting of the brood chamber at this time will weaken rather than strengthen the colony.

When the hive becomes crowded the bees are liable to swarm, but if given plenty of room, as suggested above, and the queen cells are kept cut out, swarming can be largely prevented. When a colony swarms, the old queen and all the old bees go, leaving only the brood, the hatching bees, and one or more queen cells about ready to hatch. In case of swarming, if the swarm is given a new hive with a super upon it they will generally store a surplus of honey, but the young bees left behind will store but little if any. A second and sometimes a third swarm may come from the same hive, if left to themselves, precluding any possibility of surplus honey, all energy being put into the rearing of young bees.

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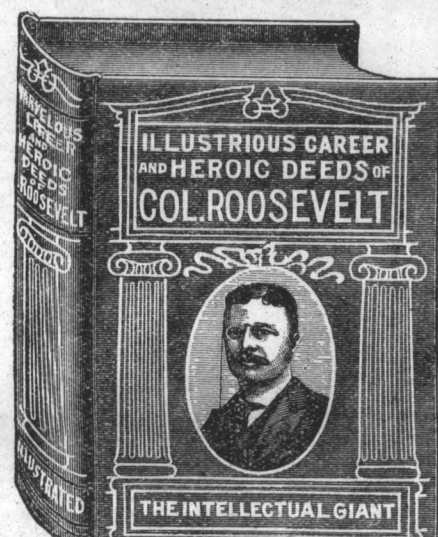
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WHAT EDUCATORS THINK OF FARMERS' CLUBS IN COLORADO.

As has from time to time been noted in these columns, Farmers' Clubs have been gradually developed in other states, following the pioneer lead of Michigan. But in some of these states the Farmers' Club movement has been fostered and directed by the educational institutions maintained for the benefit of agriculture, while in Michigan the movement has been spontaneous. An article recently published in the news letter of the Colorado Agricultural College, affords some interesting side lights on this fact, and also shows what Prof. Barnes, of the extension division of that institution thinks of the Farmers' Club as an institution, and of the work which the organization is doing in Colorado. Prof. Barnes' comment follows:

"Like all other instrumentalities intended for the betterment of human conditions, the Farmers' Club depends for its success upon the manner in which it is used. Given a group of families all anxious for the mutual improvement which comes from the attrition of mind with mind, each individual eager to contribute something to the general advancement—yet each as willing to listen as to hear; to applaud as to criticize—and we have the material for a Club whose success is practically assured from the start. Given another group, most of whose members are stolidly content with things as they are—who are inclined to resent any disturbance of their inertia, and to look upon the act of joining a Club as a personal favor to the persuasive organizer—and the bond of union is so weak that little surprise is occasioned when some member reports, as in a recent case, that 'Our Club seems to run to interment instead of discussions.' The 'interment' is never far off from such a Club. Perhaps, however, the most beneficent work is done by a Club which has a sufficient number of live, progressive members not only to make its privileges beneficial to themselves, but to so drag along the inert and uninspiring as to make them contribute bulk at least to the community's advance.

"One thing is sure: Whenever a Farmers' Club is sufficiently long continued, the advantages accruing from its organization become so clear that few will consent to its abandonment. As soon give up the school or the postoffice! For it develops not only as the radiating center of advanced ideas in agriculture and household economics, or as a means of reinvigorating social intercourse, but as the nucleus of all manner of co-operative undertakings, which are to add to the wealth, and prosperity of the farmer and make country life more than ever 'worth living.'

"Says the secretary of one new Farmers' Club, in sending his report to the Extension Department: 'The Club has not accomplished anything in the line of business; but it has brought neighbors together that did not hitch before.' Now, is that not the very best of beginnings? Does it not indicate that these neighbors, now 'hitched' will ere long find the strength of unity, and accomplish before undreamed of and impossible things 'in the line of business?'"

WILL YOUR CLUB BE REPRESENTED?

Before another issue of this paper reaches the reader, the eighteenth annual meeting of the State Association of Farmers' Clubs will have passed into history. Your Club should help to make that history. If no delegates have been elected, see that the Club is represented by one or more members. Go yourself, and get credentials from the officers of the Club to seat you as a delegate in the convention. You will feel well repaid for the time and money spent in attending and will be helping to make this meeting a red letter event in the history of the State Association.

CLUB DISCUSSIONS.

Elect Delegates at Thanksgiving Meeting.—The regular meeting of the Hadley and Elba Farmers' Club occurred Nov. 17 at Pine Ridge, the home of Mr. and Mrs. Jerome Peterson. The house was beautifully decorated and manifold preparations made for the comfort of expected guests. The roll call: "What I have to be thankful for," was a mixture of fun and seriousness, showing thought and a realization of the many blessings of the past year. "The history of Lapeer County," by Mrs. C. A. Bullock, was exceedingly interesting. Mrs. John Brownell, of Lapeer, gave a fine talk on centralized schools. C. A. Bullock led in the discussion of "Care of farm tools and stock." C. A. Davenport and Jerome Peterson were elected delegates to the State Farmers' Club Association. The attendance was small owing to three threshing machines scattered among the membership, but for all that, it was one of the best meetings in the history of the Club. The next meeting will be held at Maple Grove with Mr. and Mrs. B. L. Snook, Dec. 15. —Mrs. C. P. Johnson, Sec.

Discuss Many Practical Topics.—The November meeting of the Washington Center Farmers' Club was held at the home of Mr. and Mrs. C. B. Doan in the village of Pompeii. The meeting was called to order by President Cammet. After the usual order of business the gentlemen present discussed, "Does fall plowing pay and is it injurious to the soil?" The general opinion was that it all depends on the kind of soil and the weather conditions. This discussion was led by F. E. Cammet. Roll call was responded to by Thanksgiving Thoughts, and Mr. Ingerson, who was a visitor, gave a fine talk on "Thanksgiving Thoughts." "The profit in growing hogs for market and how to care for and feed them for best results," was the next topic. Many good suggestions were offered along this line. Miss Altha Doan gave a fine selection of instrumental music. "Practical means of fire protection for country homes," was next discussed. A good supply of water, conveniently located, long ladders, roof ladders, a good force pump and a supply of hose were among the things mentioned. Keep your chimneys in good repair, never set a lantern down in a barn, do not permit smoking around out buildings, are also means of protection. "The terrible danger of being alive," by Mrs. Campbell, told of germs and microbes. Keep away from them and they won't hurt you. The Club then elected Mr. F. L. Cook to represent them at the meeting of the State Association of Farmers' Clubs to be held in Lansing and adjourned to meet at The Cottonwoods with Mr. and Mrs. W. C. Long, Dec. 15, when the officers for the coming year will be elected and the delegate will give his report of the meeting at Lansing. —Cor. Sec.

Discuss Bovine Tuberculosis.—A very interesting meeting of the Farmers' Club was held at the home of Mr. and Mrs. Don Durkee in North Odessa, Saturday, Nov. 12. Despite the cold weather and long distance from most of our homes, a goodly number were present. The meeting was called to order by the president, and all joined in singing "America." Our president, Leon Carter, having the gentlemen's subject at this meeting, asked Vice-President Henry Stinchcomb to preside while the paper, "Bovine Tuberculosis," was read and discussed. This was very interesting and the conclusion was that the preventative of the disease is fresh air and sunshine, and there is no cure except the killing of the animal. This subject being closed, dinner was announced and the plentiful supply of delicious viands were heartily enjoyed by all present.

Elect Officers and Delegates.—November being the time for the election of officers for the coming year, the business session came next, with the following result: President, J. L. Carter; vice-president, A. E. Leigh; recording secretary, Mabel Curtis; corresponding secretary, Mrs. Lottie Durkee; treasurer, Howard Klahn. Henry Stinchcomb and Mrs. J. W. Brown were elected delegates to the State Association of Farmers' Clubs to be held in Lansing, Dec. 6-7, with Arthur Leigh and Mrs. W. S. Augst as alternates. The report of the program committee for 1911 being accepted, a very profitable meeting was closed.

Hold Annual Meeting.—The Cambridge Farmers' Club met Nov. 7 with Mr. and Mrs. Boyd Parker. The question left over from last meeting about grading the hills in the township was taken up. Mr. Dewey had prepared a chart showing something of the amount of work necessary. The subject was well discussed. Dinner was served, which consisted of chicken pie. After dinner Mrs. Palmer's paper was left over until next meeting and it was voted to dispense with the program and proceed to election of officers, which resulted as follows: President, Ira Mann; vice-president, S. B. Redfield; secretary, Mrs. Alice Daniels; treasurer, C. L. Greenleaf; chaplain, Boyd Parker; corresponding secretary, A. F. Dewey; organizer, Mrs. Amanda Hand; executive committee, James Newton, George Greenleaf, J. B. Daniels; resolutions committee, Mrs. Julia A. Reed, Mr. and Mrs. Judson Beal; delegates to State Association of Clubs, Mr. and Mrs. Ira Mann; legislative committee, Ed. Kerr, A. F. Dewey, Thomas Beal; chairman of refreshment committee, Mrs. Ann Greenleaf. Adjourned to meet with Mr. and Mrs. J. B. Daniels in December. About 40 were in attendance.

A Change in the Program.

Hon. L. W. Watkins, who was assigned the topic "Parcels Post" on the program of the Associational meeting, has notified the secretary that it will be impossible for him to act, but that Mr. G. H. Slocum will speak on the topic assigned to him.

GRANGE

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

FIRST TIME AT STATE GRANGE.

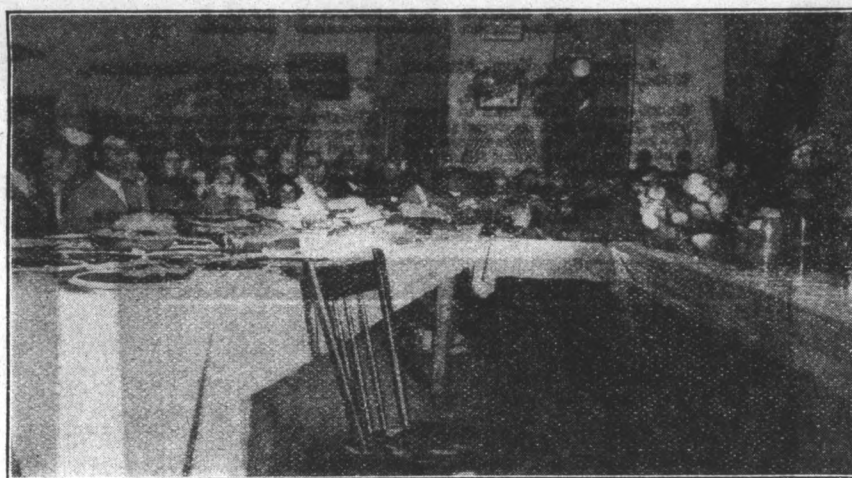
Once upon a time I went to State Grange for the first time. I remember the curiosity that possessed me from the moment I boarded the train on my way to that Patrons' great Mecca and with which I inspected every new-comer into our car, hoping to discover possible signs of grangerly kinship. How interested I was when I recognized a delegate, and with what delight all through the week I watched those who had met in previous years renew their acquaintance. How well they seemed to know one another. What cheery greetings. What familiarity they expressed with one another's home families and special lines of farming, preference in household duties, fondness for flowers, pets or fancy work. How everybody enjoyed the impromptu entertainments in the hotel corridors, and what story-telling went on amid peals of laughter and merry jesting. What life-long friendships I know to have been begun there; what correspondences, kept up for years, date from that meeting. What new meanings the various Grange offices took on for me, as I saw their occupants carrying out their respective duties in such perfection as I had never seen in the somewhat sleepy little Grange of which I was a member. How the emblems and representative nature of the station decorations and of the entire ritual language impressed me with its wonderful meanings. What a sight it was to see hundreds of men and women counseling and acting together, each supplementing and completing the work of the other.

This experience, in a way, has been duplicated in "the first time at State Grange" by hundreds and hundreds of others, and will be again and again. There are those who are now planning to attend the annual meeting at Traverse City, Dec. 13-16, who will go there with perhaps as much timidity and wonderment as I did, and who will also go away with a larger sense of the field for Grange need and activity, a stronger bond for their fellow kind, a keener recognition of the wisdom and beauty in which the Grange is embedded and, at the close of the week, these will, I hope, register a resolution to be henceforward nobler men and women than ever before—less self-seeking, more devoted in service to others. So may it be, a thousand time a thousand times!

JENNIE BUELL.

A SUCCESSFUL GRANGE FAIR.

The fair of South Boston Grange, No. 175, Ionia Co., was held at the Grange hall on the evening of Oct. 29, with a large crowd in attendance. The domestic, vegetable and art departments were well filled, while the section devoted to the



Section of Exhibit at Fair held by South Boston Grange, of Ionia Co.

school exhibit would have been a credit to any fair. The Grange orchestra furnished some fine music. The contests in which the men were required to thread needles and the women to drive nails, and the filling of bottles with a teaspoon, were rather amusing. Refreshments were served to the crowd, and all voted the fair a success.—Ida E. English, Lect.

AMONG THE LIVE GRANGES.

Sumner Grange, of Gratiot Co., reinstated six members and added four new ones during the month of October. At its last meeting 75 per cent of its membership was in attendance and plans have been laid for increasing the membership to 100 during the winter. This Grange held a fair on Oct. 27. The fact that this fair was not up to the one of the pre-

ceding year has not discouraged the members, as is evident from the fact that the managers of next year's fair have already been selected.

Open Meeting at Tecumseh.—Tecumseh Grange, of Lenawee county, held a well-attended open meeting on Friday evening, Nov. 2, at which the question of "Free Text Books" was discussed by Superintendent D. P. McAlpine. The trend of his remarks was to the effect that a uniformity of courses in the district schools, leading up to the high school course was more to be desired than a uniformity of text books. "The Distribution of the Primary School Money" was treated by C. H. Bramble, who advocated a change from the present system of distributing the money, declaring the present system to be unjust. However, he believes that this change must come gradually, as the people are at present unwilling to make a radical change.

Charlevoix Pomona.—Thursday, Nov. 17, Charlevoix County Pomona met under the hospitable auspices of Barnard Grange. A major portion of Charlevoix county's seventeen subordinate Granges were well represented. In point of entertainment the meeting proved one of the best for some time. Though unable to reach the hall before 3:15 p. m., Bro. J. C. Ketcham, of Hastings, after a long, disagreeable drive, immediately proceeded to warm up by delivering a very amusing and forceful address touching upon the principles of the Grange, its plan of organization and the necessity of members measuring up to its standard. Before his departure Bro. Ketcham gave a thorough explanation of the plan of the Grange life insurance company. Bro. Walter Black and wife were chosen Pomona delegates to State Grange, with Bro. Geo. Meggison and wife as alternates. Three applicants were obligated and instructed in the fifth degree. Bro. H. L. Olney, of South Arm Grange, was re-elected member of the executive committee and this committee was instructed to fix time and place of next meeting.—R. A. Brintnall, Sec.

Eaton Co. Pomona recently held a very successful meeting with Delta Grange. Prominent features of the program were talks by Mrs. Abbie E. Dills, secretary of the Woman's Work committee, and Mrs. E. J. Creyts; also a paper by L. L. Plowman, on "The Effect of Farmers' Organizations upon Rural Progress."

Do Your Best.—An Allegan Co. sister writes that whenever she sees a Grange member who possesses ability but whose efforts do not measure up to that ability, the following lines run through her mind: They are commended to every Patron who has the welfare of the Grange at heart: No matter what your work is

Be sure it is complete;
If you only twine some flowers,
Or if you bind some wheat,
Don't say, "'tis good enough
And nobody there will know."
If we give up to thoughts like these
Our Grange will never grow
In knowledge or in virtue.
In truth or in the right.
But we study hard to keep it
Always free from every blight.

Reports from Eleven Granges of Gratiot county were given at the November meeting of the Pomona, which was held with Newark Grange. These reports showed a total membership of 710. State Speaker J. K. Campbell, of Washtenaw Co., gave a talk on desirable legislation, declaring that other industries not as important as agriculture have, through effective organization, exerted more influence upon legislation than the farming class. He then reviewed briefly the reforms which the Grange, both State and National, has stood for many years. The question "School Legislation—what Shall it Be?" was discussed, developing the fact that while nearly all present were in favor of uniform text books in the schools, very few favored free text books. Some expressed the opinion that the books in present use are too difficult for eighth-

COMING EVENTS.

Michigan State Grange, Thirty-eighth Annual Session, at Traverse City, Dec. 13-16.

Pomona Meetings.

Hillsdale Co., with Cambria Grange, Wednesday, Dec. 7.
Grand Traverse District Grange, with Summit Grange, Wednesday and Thursday, Dec. 7 and 8.



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is fed by 500,000 stock raisers daily. I want you to see what it does for your horses, your milch cows, your hogs, your sheep and your poultry.

I want to prove to you beyond all doubt, that Wilbur's Stock Tonic is a wonderful feed saver, fattener and positive preventive of disease. I want you to find out by actual test that my tonic makes money for you every time you feed it.

That's why I will send this big box absolutely free to you and to every reader of this paper, who fills out and sends me the coupon below.

I don't want you to pay me a cent for this big, full size \$1.00 box now or at any other time.

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It is not a premium, but a gift, and my object in giving it to you is to let you prove to your own satisfaction that it is a feed saver and money maker for you. Is my offer fair?

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What Others Say

Arkansas City, Kans., Apr. 5-10
Wilbur Stock Food Co.,
Milwaukee, Wis.

Gentlemen: Would like to know what the prices on thousand pound lots would be. Have been feeding it about two months and think it is all it is claimed to be. Hoping to hear from you soon, I am,
Respectfully,

BERT WILHELM
R. F. D. No. 6

Williamsport, Pa., May 17, 1910,
Wilbur Stock Food Co.,
Milwaukee, Wis.

Gentlemen: We have used one pail of your tonic for our two horses. It saved the life of one of them after everything else failed. Please give us price and terms on pails.
Yours,

Boys Industrial Home,
T. P. S. Wilson, Mgr.



PABST FAMOUS SIX-HORSE TEAM OF WORLD'S CHAMPION PERCHERONS

This Beautiful Picture Free

Champion six horse team of the world. Fed on Wilbur's Stock Tonic. Awarded First Prize at St. Louis World's Fair. I mail you this beautiful picture FREE, size 15 x 31 inches, in exquisite colors, if you mail the coupon without delay.

Extra Premium

If you will send the coupon at once, I will also send you, free, postage paid, the beautiful picture of the World's Champion Six-Horse Team shown below. This picture, 15 x 31 inches, is reproduced in eight exquisite colors from an actual photograph of the World's Champion horses in action.

J. P. Wilbur

WILBUR STOCK FOOD CO.
151 Huron St. Milwaukee, Wis.

FREE \$100 BOX COUPON

F. P. WILBUR, Pres.,
Wilbur Stock Food Co.,
151 Huron St., Milwaukee, Wis.

Please send me the \$1.00 Box of Wilbur's Stock Tonic and the large colored picture, both free.

I own _____ horses _____ cattle _____ hogs _____ poultry.

My Name _____

P. O. _____ R. F. D. _____

Freight Sta. _____ State _____

Arcadia, Okla.
Wilbur Stock Food Co., Milwaukee, Wis.:
Gentlemen:—Received my watch in good condition and was surprised to find it so nice, and I appreciate it very much. It has kept good time ever since I got it and don't see how you could have sent it.
I think your Stock Tonic is the best made. Have used several different kinds of Stock Tonic, but never found any that will do as much as yours. I have sold ten pigs (would have been six months old

the middle of February) and they weighed 200 pounds apiece. Some wanted to know how I fattened them and what I fed them that made them grow so fast, and, of course, I had to tell them it was Wilbur's Stock Tonic.
I have seven head of horses and they are rolling fat. When I hitch them up they are so high-lifted that I can hardly do anything with them. They are always up and ready to go. Everybody wants to know what keeps them in such good

condition and I tell them it is your Stock Tonic that does it. I have a team that is equal to your champion team on your envelopes. They are fine, and eat Stock Tonic three times a day. I thank you for your past favors, and remain,
Your agent, W. M. RANDLE,
Kremmling, Colo.
Wilbur Stock Food Co., Milwaukee, Wis.:
Gentlemen:—Enclosed find draft for \$13.00 in payment for Stock Tonic. I have used two pails of your Stock Tonic, it is

certainly fine. I have used almost everything on the market, but nothing to compare with Wilbur Stock Tonic. My milch cows, calves, hogs and colts, after feeding three days, I noticed the change. It has saved me many a sack of grain. My horses are slick and nice, also working hard every day.
Will enclose watch certificate, and thanking you for past favors, I am,
Yours truly,
(Signed) CASPER SCHWAB.