

rails thrown across the mow and a few boards across the rails. This scaffold extends to within a few feet of either end of the mow. On this scaffold the mow-men stand, and on it the forkfuls of clover are dumped, when the men proceed to build tiers of the clover at the ends of the mow. These tiers must not exceed three and one-half or four feet in width. The mow-men do this from their scaffold, being careful to loosen up every forkful of the clover and letting it drop on the tier as loosely as possible. As each layer of clover is placed on the tier it is evenly sprinkled with salt. As these tiers reach the scaffold, or higher, if necessary, the scaffold is narrowed and two more tiers started on the bottom of the mow, leaving one foot of clear space between the tiers. This space is all-important and must be left clear for the circulation of air. When the center of the mow is reached the scaffold may be opened at the front or back of the mow, as necessary to build the center tiers. When the lower part of the mow is filled spread your scaffold over the mow to form the bottom of the upper tiers. Make a scaffold on the upper cross beams and use it as the former one was used, building your tiers on the first scaffold. The advantage of this division in the tiers is that the hay will dry evenly without producing mold or turning black. Where there is only a small quantity of second-cut clover it may be stored in the top of lofts or mows which have been filled with hay but have settled down, leaving two or three feet of space. In any case do not tramp the clover, but leave it as loosely as possible that the air may penetrate it. J. O. H. S. Carleton Co.

A Point in Clover Growing.

To the Editor FARMER'S ADVOCATE:

SIR,—I cannot refrain from calling attention to the following statement in an editorial in your issue of July 15th, though to disagree with the editor is usually a dangerous course to pursue: "If clover was sown every year with all cereal crops on well-prepared land, we should have no fear of the future fertility of the farms of Canada. With this and barnyard manure, made from feeding of stock on the farm, our land may be kept in good enough condition to grow the best of crops in perpetuity."

This is a dangerous doctrine, and, in the light of experience and latest research, a misleading theory, practically and scientifically incorrect. This plan has been tried and found wanting, after awhile clover becoming a total failure, and other crops failing in like manner. Clover and all leguminous plants are able to feed upon the nitrogen presented to them by the micro-organisms of the land, which convert the nitrogen of the atmospheric air into forms which furnish plant food for legumes. But clover and all legumes hunger for the mineral elements of the soil, of which phosphoric acid is proved the most important. Without a plentiful supply of phosphoric acid and lime, which we speak of as phosphate, not only will the clover suffer for phosphoric acid, but the land will suffer in that there will not be the needed development of myriads of little nitrifying organisms referred to. We, then, arrive at the point when the clovers bring us no longer atmospheric nitrogen, but merely feed upon the soluble nitrogen presented to them from the decomposition in the soil of manure, either animal or vegetable.

The failures to succeed with just such a plan as you suggest arose from a want of knowledge of the requirements of the clover. The real value of clover as manure lies in its power, under proper conditions, of bringing us something new into the land, viz. atmospheric nitrogen. Wagner, of Darmstadt, who is admittedly the authority *par excellence* on this subject, says: "You may cultivate clover, peas or vetches, but these plants will not have the power of making use of the rich supply of nitrogen in the air, which is to be had free, if they are allowed to starve for the want of phosphoric acid."

Clover and its confreres are undoubtedly tremendous aids to farming, as by a proper attention to their necessities a valuable and costly element may be incorporated with our soils; but I think it is the place of an agricultural journal to warn the farmer that serious disappointment may be in store for him if he simply follows the plan laid down in the second paragraph of the above quotation from the ADVOCATE.

It will not do to depend upon the animal or barnyard manures to supply phosphates, as they only contain the amount remaining in the undigested portion of the food passing through the animal's stomach, and such as the straw litter contains. It, then, does not add anything new to the soil, but merely is the product of the soil worked over. The phosphate of the land is used up and carried away by the bone of animals and people fed on the farm, or in the cities from the products of the farm, and unless some provision is made to return it, clover growing will not be a success after awhile.

The present season has seen luxuriant growths of clover, as nitrification has been very active, and, as under such circumstances the earth brings forth clovers with a seeming spontaneity, it behooves us to study so as to, if possible, simulate the conditions of nature.

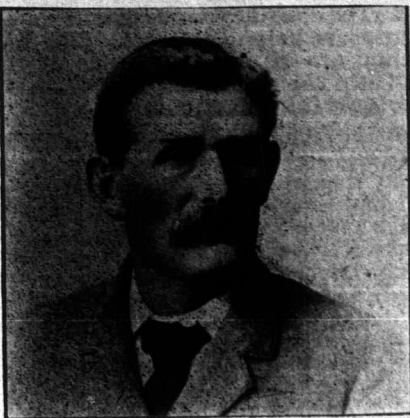
The clovers are unusually rank this season. Can they be continued, and can they be improved? My answer is that they can, if means are taken to balance with phosphoric acid, well combined with

bases, the great store of nitrogen which, in many cases, has been brought into the land from the atmosphere by the clover.

T. O. WALLACE (Wallace & Fraser).
Toronto, Ont.; St. John, N. B.

Death of Mr. Joseph G. Snell.

It is our painful duty to record the death of the well-known stock breeder, Mr. Joseph G. Snell, of Snelgrove, Ontario, brother of Mr. J. C. Snell, of the FARMER'S ADVOCATE, which took place on Aug. 10th, resulting from a fall from a ladder in his barn. Mr. Snell was the third son of the late John Snell, and was in the fifty-second year of his age, though his appearance would indicate a much younger



THE LATE JOSEPH G. SNELL.

man. He was one of the best known and most enterprising and successful stock breeders and exhibitors in Canada, and also one of the best all-round judges, having frequently been called upon to act in that capacity at Provincial and State fairs, and he acted a prominent part in promoting the improvement of stock in Canada on sound lines, his specialty being Berkshire swine and Cotswold sheep, an importation of the latter being in quarantine at Quebec at time of his death, including a number of prize-winning animals at the Royal Show of England. He was a kind-hearted man and of a very cheerful disposition, and was deservedly popular in his own neighborhood and also amongst the stockmen with whom he had been associated for many years at the leading exhibitions and at the conventions of breeders. He will probably be missed as much as any one man at these gatherings. He leaves a widow, two brothers and seven sisters, who will have the sympathy of a large circle of friends among the readers of the FARMER'S ADVOCATE throughout the country.

Filling the Silo.

Doubtless before another issue of the FARMER'S ADVOCATE reaches our readers silo filling will have commenced in the earlier sections, and owing to the earliness of the season this work will be general throughout September. As years go on not only is the number of silos increasing rapidly, but the advantages of growing early-maturing varieties of corn are being appreciated. Along with this is the better understanding of growing and cultivating the crop, till the harvesting of the corn and filling the silo is being done earlier and earlier in the season. This has its advantages, in avoiding possible loss by frost, in having good weather and long days in which to do the work, and in clearing the fields that they may be plowed if so desired.

While early filling has its advantages, the experienced man will not commence before the crop is ready. The glazed stage of grain on the cob is doubtless the condition of maturity to wait for, as then the crop contains the maximum of nutriment in best form for digestion by the animals, and if properly put into a deep, air-tight silo it will come out neither mouldy nor containing too much acid. The former condition is caused by overdryness and the latter by immaturity. With corn that has become overripe, or allowed to wilt or dry after being cut, mouldiness can be prevented by sprinkling the corn with water as the silo is being filled. Some stockmen, who grow more corn and like more ensilage than their silo will hold at one filling, shock that which the silo will not hold and put it into the silo during the early winter or as soon as there is room. Liberal use of the water can in the silo at almost every load is necessary in such a case.

Cutting the corn in the field continues largely to be done by hand by means of the corn knife or sickle. It would seem at present, however, as though the old tool is to be relegated to obscurity sooner or later. The various platform cutters and sleds with knives have been tried with satisfaction in nice standing crops, but these have little advantage over a first-class man with a corn knife, if he can be secured at a reasonable wage, as he will leave his bundles in nice shape to pick up. The corn binder seems to be the coming machine. Last year in some districts a number of machines were bought by three or four neighbors in partnership, and satisfactorily used in that way. In other sections machines were owned and operated by individuals, as are threshing machines, by charging a certain price per acre for binding up the crop. A man who owns a team and has time can do a good business in a corn district in this way, as the crop does not come in together, as with oats, wheat, and other grains. From our experience of last year a farmer will do well to employ one of these ma-

chines, if it can be secured reasonably and at the time the crop is ready. His own men and teams will then be free to haul the crop to the barn and put it in the silo. Some object to the twine being mixed with the feed, but we have never known injury from this source. Should it be feared that evil may result from the twine being in the feed, a boy could stand on the side of the feed board opposite the feeder to cut the bands and pick them out just as the sheaf is going into the machine. Again, the length of stubble usually left by a corn harvester is too great to suit some, but this can be reduced by cultivating the crop the last time or two towards the rows. When commencing to fill a stave silo, don't be alarmed if you can see through the cracks; the damp silage will swell the cracks tight in twenty-four hours, but beware of knot-holes or places in the edges in the boards that do not fit; tack a piece of tar paper over them. Try the hoops after the silo is filled a few days, and if too tight, slacken the nuts, or there is danger of bursting the hoops.

A wagon with low wheels and platform is generally preferred for hauling the crop. It is easy to load, and if driven unto a platform or higher ground beside the ensilage cutter, no inconvenience is noticed in unloading, especially so when the crop is bound. Owing to the number of hands needed to fill the silo, it is well to calculate on doing a rapid job. One man in the silo is considered necessary to keep the corn evenly distributed and the edges tramped. It is well, however, to allow two or three days interval between the time the silo is first filled to the top and when more corn is put in to fill the space made by the corn settling. This should be done two or three times if one has corn enough to fill the silo completely. Leveling the silage is facilitated by allowing the corn to drop from the elevator on to a small platform which will form a cone of corn, shedding it in every direction as it falls from the carriers. Where a blower is used this would not be necessary. Neither weighting nor covering the silage is now considered necessary. Simply carefully level and tramp each day till the settling has nearly ceased, and then sprinkling well with water. This forms a dense mould on the surface which excludes the air. Another plan, and one which Mr. Wm. Rennie, Agriculturist at the Guelph Experimental Farm, has found successful, is to spread snugly over the corn an oiled cotton spread, tucking the edges well down to exclude the air. This is, perhaps, the best covering yet produced.

Ensilage Corn Two Years Old.

Mr. J. A. James, of Nilestown, Ontario, who has a model silo built of concrete cement and gravel, recently left at this office a full ear of corn of the variety known as Butler's Dent, which is his favorite, and which had been dropped into the silo two years ago uncut and enclosed in the husk. It is perfectly well preserved, shows the dents in the kernels clearly, and evidently has sufficiently matured to have made good seed corn if it had been husked and thrown in a crib at the time it went into the silo. Mr. James had more ensilage in the spring of 1897 than he could feed, and the old stock was left in the bottom of the silo, the new crop being put on top of it. This summer the cows have been fed daily from the silo since the first flush of the pastures was over, the flow of milk being kept up well all through the hot and dry weather, and though they are now in clover to their knees, they relish the corn ensilage thoroughly, and are doing splendid work in the dairy. Mr. James is a strong advocate of well-matured corn for silage, and says that in his experience corn which was cut and shocked for a time and thus partially cured before being put in the silo made better ensilage than that cut and put directly into the silo, and that cut and left a day or two in bunches on the ground and partially dried made a better quality of ensilage than that cut and taken to the silo while fresh and green. These lessons serve to emphasize the advantage of having a supply of ensilage on hand to supplement the summer feed of the cows when pastures fail; to prove that an excess of moisture in the content of the silo is not conducive to the best quality of ensilage, and that there is no risk in leaving old ensilage in the bottom of the silo from year to year, if a few inches of the top which has been exposed to the air is removed before commencing to refill the silo. We recollect hearing Mr. Rennie, of the O. A. C. farm, state that he had not seen the bottom of the silo there for several years.

If any of our readers have experienced any ill effects from this course, or know of any valid objections to it, we should be glad to have them tell of it through the columns of the FARMER'S ADVOCATE.

An Effective Dressing for Ringworm.

There are many cures for ringworm on the market—few of them better than the ointment prepared by Mr. R. Gibson, the well-known dairy enthusiast of Limerick. An ointment which we have more than once seen used with excellent results is made up of equal parts of hog's lard and flour of sulphur. When these are thoroughly mixed there should be added to every five ounces half an ounce of pure carbolic acid dissolved in one ounce of glycerine. Rubbed in every second day, this ointment will be found very effective in destroying the parasites to which the ringworm is due.—*Farmer's Gazette.*