

lowing these simple suggestions, a setho may be made to hold its edge twice as long as when the rittle or whet-stone is drawn along the edge almost at random. A few strokes carefully taken will enable the workman to keep the proper direction and whet rapidly."

#### CUTTING AND CURING CLOVER.

Clover should be cut immediately after blossoming and before the seed is formed. It should be cured in such a manner as to lose as little of its foliage as possible, and therefore cannot be treated exactly as the natural grasses are. It should not be long exposed to the scorching sun, but after being wilted and partially dried, it should be forked up into cocks and left to cure in this position. The fourth or fifth day, when the weather is fair and warm, open and air it an hour or two, and it will then be fit to cart to the barn. Clover cured in this way without the loss of its foliage, is better for milch cows and for sheep than any other hay. It may also be fed to horses that are not hard worked, or to young stock, but it is most valuable to cows in milk. For other farm stock it is worth from two-thirds to three-fourths as much as the best hay.—*Manual of Agriculture.*

#### ON MANURE.

##### NO III.

In this letter I wish to point out, that after doing everything to save the solid portion of the excrement of cattle from waste, and when that desideratum is actually supplied, another step is still before us—that of saving the liquid.

I delineate these steps in sequence, not because of there being any inherent necessity of their being carried out by degrees, but because I think, or rather fear, that (except in a few scattered instances) it would be almost impossible to get our farmers to go the whole hog, or turn over a new leaf all at once; I believe, however, that if any one will take a single step in the right direction, or will go the length of really saving all the solid manure with whatever proportion of moisture it generally contains, he will then be doubly anxious to take another step in the same line, and save the liquid also.

I do not think it is necessary for me, just now, to point out in what way this should be done. I am chiefly intent on urging the necessity of its being done, knowing that when the "will to save" is once created, the "way to save" will soon follow.

The urine of a cow in comparison with the dung, is said by some of our best professors of Agriculture, to contain not only the largest amount of manure, but also the best qualities as a fertilizer; and wherever the practice of using it in its

fluid state has been adopted, it has been found to be much more easily and cheaply applied than its solid compeer.

Once have the proper arrangement made for saving it, a watering cart and a pump to load it with, and I wonder if there is any crop which Nova Scotia attempts to grow, that would not rejoice to have a drink of it, at the right time.—Now, let me ask, what becomes of this almost invaluable element in Nova Scotia.

Once discoursing on this subject with a man of means, and a farmer, he exultingly drew me away to his tye-up, where he proceeded to show me how well he saved his manure; here everything was as nice and handy as money could make it. A large side hill cellar, received all his manure, liquid, and solid, convenient trap doors being laid in the floor for that purpose. See there! says he, there's the way to save manure. Where Doctor, where is it? I immediately asked.—Why, there it is, don't you see it—there it is before your eyes. Oh yes, I said, I see a big pile of pretty well saved solid in manure; but Doctor, where is all that amazing quantity of liquid manure, such a number of horses and cattle must have made? The fact is that what between the floor of his cellar being of the most porous sort of sand, imaginable, and the yard sloping from it, down to a boggy pond, not fifty feet off, the pile of manure was drained just about as dry as it well could be.

And yet this very man was eager for manure, and told me, he would like to have four tons of artificial manure every year.

The above anecdote will serve as an answer to our question, for it is pretty much the same with almost all the liquid that is voided by the thousands of cattle in Nova Scotia. What a prodigious waste!

BEDFORD.

#### CHICORY — ITS CULTIVATION AND ITS USES.

Chicory, Succory, or wild Endive, (*Cichorium intybus*), is a perennial plant, with a large, very long, simple tap-root. The first year it produces only numerous radical leaves, six to eighteen inches long, two to four inches broad, narrower at the base, and serrated more or less. In the spring of the second year, a stalk shoots from the centre of the leaves, three to six feet high, with smaller leaves than the radical ones, branching, and bearing in the axilla of the small leaves pale blue, as well as azure-blue flowers, about three quarters of an inch large. These flowers bloom successively for a long time every morning, and shut before noon. To these succeed oblong seeds, surmounted with a little scarious crown, and contained to the number of fifteen to eighteen in a

common calice. It grows well on almost all soils, but particularly in those of a light sandy loam, the deeper the better, for in such the roots will attain the largest size.

The roots and leaves of chicory have been used in medicine, as tonics and depuratives, to reestablish the appetite, promote diuretic action, &c. In Europe it is much cultivated in gardens for its leaves, which are in great request to eat as a salad, when young, and for which purpose the roots are taken up and planted in barrels or boxes in a cellar, where the leaves that shoot out of the crown become white, etiolated, and very crisp and tender.

This plant makes a most valuable fodder, which cows, horses, mules, oxen or sheep eat readily, and it is largely cultivated for that purpose, to be eaten as a green fodder, particularly by cows. For this purpose it is sown in the spring, after a good plowing, broadcast with oats, at the rate of four or five pounds to the acre, so that the leaves speedily cover the ground and smother the weeds, and by which the leaves are mutually held upright, so as to be easily mown. The seed can be sown in the fall as well, but then the plants are apt to shoot to seed the next spring before the roots have got a large size, and the crop of leaves is smaller. That sown in the spring will give two or three cuttings the first year from July until winter, and four to six cuttings the next year, and produce at each cutting about a ton of excellent fodder; or it can be pastured. It will shoot up after each mowing, no matter how dry the season may be; and no plant will bring so large an amount of fodder per acre, except perhaps Lucerne, which is more difficult as to quality of soil and culture.

But chicory is much cultivated in Europe chiefly for the roots, which constitute its most valuable use, and for this purpose they should be taken up at the end of the second year; as the object is to obtain the largest roots, a good deep soil should be chosen, and the seed sown thinner than for fodder; or in drills six to eight or twelve inches apart, so as to hoe and weed them the better, in order that the roots may acquire their greatest dimensions.

A few years ago I took up some roots that had been growing for three years in a light, sandy, deep soil, not manured, that were about three feet long, and at the collar as thick as my wrist; one acre of such roots would produce at the rate of nearly fifty tons.

Thus when it is intended to raise chicory for its roots, for making the chicory or succory of commerce, they should be taken up at the end of the second year, cutting or mowing off the leaves first at the collar; and as chicory is not affected