

strength applied to locomotion and to labor and grinding food, is so much taken away from their capacity for labor. If three or four hours of strong muscular labor are spent in working up hay and straw into a pulp, there is a great loss of strength and of time.

In the case of fattening animals, you want the aliment to go to the formation of fat, and flesh. This process goes on successfully, just as the animal is kept quiet, and comfortable. No useless labor should be expended in the grinding up of food. The straw-cutter, working up the hay into fragments of all an inch in length or less, performs a good part of the work of the jaws, and makes the feeding of the animal a light matter. If the hay could be ground up into a fine meal, it would be still better; as it would more completely yield up its nutriment. If it could be steamed it would be best of all as it would then be wholly appropriated.

We have not a doubt that it pays quit as well to pass hay through the machine, as the coarsest fodder.

A root-cutter is also an indispensable adjunct to the barn, and the more perfectly it comminutes the roots the better.

The farmer who has ever experimented with these machines, and marked the results of feeding with hay, and roots prepared in this way, can have no doubt of their utility. Laziness, we apprehend, has quite as much to do with the neglect of these machines as ignorance. It is work to turn the crank to cut up hay enough to feed twenty head of cattle, and in prospect of spending the elbow grease, it is very convenient to believe that it will not pay. Sloth, however, is a poor counsellor in this case, as in all others. We should as soon think of feeding cattle in the open field in this bleak Winter weather, as of feeding them uncut hay. A warm stable and a straw cutter are both good investments.

Carrots for Stock.

Can any thing be better as Winter food for all kinds of animals, than this familiar root? We have used it for several years with most gratifying results. It is not only as useful as a "relish" with the fodder, as apples and vegetables are for mankind in the Winter, but it contains valuable nourishing properties, and may be used as an alternating substitute for other food. We are not surprised to learn that the keepers of livery stables in cities are beginning to use carrots for horse food. They hold that a peck of carrots and a peck of oats are better for a horse than two pecks of oats. All animals require for their health and comfort green food to mix with their dry fodder, and their winter bill of fare is deficient, if it does not include carrots.

We have the report of an experiment made by a careful farmer to test the relative value of several kinds of food for milch cows, with the following general result; three pounds of carrots, equal to one pound of hay. This would make three tons of carrots equal to one ton of hay—i.e., for producing milk; but for fattening purposes, we should place the carrot nearer upon a par with hay. This also is true of it, that it yields larger crops than the potatoe, is more nutritious, is better adapted to this climate than rutabagga or turnips, can be more readily and better kept through the winter, and is more easily prepared for feeding, as it does not require boiling or steaming, unless it be for swine. We sometimes meet in our exchanges, with various recipes for coloring Winter made butter a rich golden hue, like grass-made butter; but we believe the best way to accomplish this is by feeding the cows on good orange carrots, and leave to them the work of coloring the butter.

THE CULTURE is not difficult. Give