

they assist in manuring the land. They are then bound in small bundles with bands at each end, of such a size that you can grasp with both hands, or sometimes into bundles of twelve handfuls each, and arranged along the borders of the field. If not done before, knock and shake off the soil from the roots, and scrape off the undergrowth of leaves. It is then set up like wheat in shocks, for a week or so. The stalks which form each handful should be as nearly as possible of an equal length, and the roots in particular should be placed as even as possible. If the crop is kept till spring, it is tied in larger bundles and stacked and thatched.

*Gathering Seed.*—When the female hemp is gathered, it is allowed to stand eight or ten days in the air, to allow the seed to dry and ripen, the tops being covered with undergrowth, to keep off the birds, after which, cut off the heads, or gently beat out or thresh them to get out the seed, on a cloth. The seed which remains after this operation is got out by combing the heads on the teeth of a ripple; but the seed is inferior to that which first falls out, and is unfit for sowing. The female plant is generally stacked during the winter, and not steeped till the spring.

*Drying.*—When the hemp has been pulled, it ought, according to some authorities, to be dried in the sun for one or two days, but Du Hamel observes that it is a matter of doubt whether the plant should be dried before it is steeped; so Mills, in his 'Husbandry,' like the natives of India with their Sunn, thinks that this drying appears needless trouble. So Marcandier directs, that when the hemp is perfectly ripe it must be put into the water as soon as it is pulled out of the ground; and Sinclair says, that hemp should be watered as soon as possible. In this state it is said to require only four days, but, when it has been dried, eight days of steeping. The time must, moreover, depend a good deal on the temperature of the water.

*Steeping.*—The steeping of hemp, called *water-retting*, is a very important part of its preparation, and is to be distinguished from another method which is called *dew-retting*. The steeping places are often only ditches, three or four feet deep, varying in breadth and length, dug for the purpose on the margins of rivers. The bundles of hemp are laid at the bottom of the water, and covered with straw, and sometimes with sods, and loaded with pieces of wood and stones to keep them down. The object, as in the case of flax, is by a slight degree of fermentation to enable the epidermis, or outer skin, to separate readily from the bark, and this from the boon or reed. This is readily ascertained by taking out one of the steeped stems, and holding it by the root end, and drawing the thumb-nail up the stem to the top. If the fibre slip up the stem, it is a proof that it has been sufficiently retted.

Du Hamel, having steeped hemp in different sorts of water, observes that the fibres steeped in putrid standing water were softer than those which had been steeped in running water. But in water which does not run, the fibres contract a disagreeable color; they are, however, notwithstanding this, easily bleached; it is desirable, however, to make a small stream of water pass through the steeping place.

Du Hamel, referring to the common opinion, that hemp intended for fine cloths should be retted more than that for coarse cloths, and that for making of ropes should be steeped least of all, observes, that though there may be some truth in this, it is in vain to hope greatly to improve, by this process, fibres which are naturally coarse. A fine fibre cannot be obtained