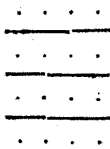


HEMP, the Common, or *Cannabis sativa*, L. a valuable plant, which grows wild in the East Indies, and is cultivated to a very considerable extent in Britain, particularly in the counties of Sussex and Suffolk. It thrives most favourably on a sandy, moist loam, or on old meadows and low bottoms near rivers, and is propagated from seed, which is sown in the proportion of eleven pecks, or two bushels per acre, broad-cast; though a much smaller quantity will suffice, if it be drilled.—The proper time for sowing hemp, is from the middle to the end of April, or even a month later; but the best crops are generally produced from the earlier seeds.

This useful plant requires no weeding; the male, or *fimble* hemp, is usually fit for pulling in the middle of July, or about nine weeks after it is sown. The female, termed *harle*, or seed-hemp, is seldom ripe till September, when it is pulled, tied into bundles, and set to dry: at the end of ten days they are loosened, and the heads or tops are held upon a hurdle by one person, while another, with a small threshing flail, beats out the seed.

The hemp is then prepared for the manufacturer, either by *grassing*, that is, lying on stubble or pasture ground, in order to be gradually *dew-ripened*, or, by *water-rotting*, for which process clays are preferred to running-water. In these, the hemp is immersed in bundles, laid both directly, and across, thus,



for four or five days, according to the fineness of the weather. The next operation is that of *reeding*, namely, the separation of the bark from the *reed*, or woody part, which is effected either by pulling out the reed with the hand, or by drying, and breaking it by machinery, like flax. The hemp is then cleared of its mucilaginous matter, by pouring water through it, and squeezing out

the liquid after every affusion, till it be completely divested of those particles.

The next operation is that of *breaking* it, which, in the county of Suffolk, is performed with the aid of certain machinery worked by the hand; when the hemp is beaten in mills; combed or dressed by drawing it through *heckles*, similar to the combs of wool-manufacturers; and spun into thread, whence it is made into twine, cordage, cloth, netting, &c.

Beside the strong cloth, and other articles made from it, hemp is of considerable utility for other purposes.—The refuse, called *hemp-sheaves*, affords an excellent fuel; and the seeds yield by expression a pure oil, which is peculiarly adapted for burning in chambers, as it is perfectly limpid, and possesses no smell. Another valuable property of hemp is, that it effectually expels vermin from plantations of cabbages; for, if it be sown on the borders of fields, &c. planted with that vegetable, no caterpillars will infest it.

When fresh, hemp has a strong, narcotic smell: the water in which it has been soaked, is said to be in a high degree poisonous, and to produce fatal effects, immediately after drinking it.

In the Eastern climates, hemp-leaves are used like opium, and possess similar intoxicating properties. The Russians and Poles, even of the higher classes, bruise or roast the seeds, mix them with salt, and eat them on bread. Birds, kept in cages, are likewise fond of this oily seed; but they should not be indulged in its constant use, which is apt to render them prematurely old, blind, and at length consumptive.

Hemp being an article of extensive utility, various vegetables have been discovered, which may serve as substitutes. Among these are the Canada Golden-rod, or *Solidago Canadensis*, a perennial plant, that might be easily cultivated in Britain: its stalks are numerous, straight, and grow above five feet in height; they afford very strong fibres, if treated in the same manner as hemp. The sun-flower, or *Helianthus*, L. also affords single filaments or fibres, which are said to be as thick, and in all respects as strong, as small pack-thread. See also NETTLE.

The following additional account may be acceptable:

HEMP, or *cannabis*, a plant, of the diœcia class, well known for its use in the manufacture of cordage and cloths. The usual height of the plant is from five to six feet; but that which is cul-

tivated near Brischwiler in Alsace, is sometimes more than twelve; its circumference three inches. It may be planted upon any land; the poorer producing that which is fine in quality, though small in quantity; and the richer and stronger, that which is abundant in the former, but coarser in the latter. Besides its uses in manufactures, hemp is said to recommend itself to the agriculturist, by driving away almost all the insects that feed upon other vegetables. Hence, in some parts of Europe, a belt of this plant is sown round gardens, or other spots, to preserve them. Hemp is known to be ripe, by the inclination of its stems to a yellow colour. This is about thirteen weeks after its sowing. After being pulled, and free from its leaves, seeds, and lateral branches, which is done by dressing with a ripple or wooden sword, it is made up into bundles to be steeped in water. The steeping, or *water-retting*, is to promote the separation of the bark, which is properly the *hemp*, from the reed, or ligneous part of the plant. The same end is sometimes attained by *devo-retting*, or exposing the stalks to the air; but the former method is generally thought preferable. The process of *M. BRALLE*, is, to boil the hemp in caldrons for an hour, with about 4 ounces of soft soap to the cwt. of hemp, in lieu of rotting.

When the hemp is thoroughly retted, which is usually at the end of four, five, or six days, the operation of *reeding*, or completing the disengagement of the bark and woody part of the plant, commences. This is done in one of two ways; either dyeing and breaking the plant, or pulling out the reed from every stalk with the hand.

When reeded, the *hemp* must be cleansed of the glutinous matter with which it is its nature to abound. This is done by pouring water through it, and pressing out the water after affusion; care being taken not to let the threads twist or entangle each other, which they are apt to do. *Hemp* is broken by machinery; after which, it is beat. This labour was formerly performed entirely by hand; but, at present, a water-mill, which raises three heavy beaters that fall alternately, is almost universally used. While the mill is at work, a boy turns the hemp, that all parts of it may receive the strokes. The finer it is required to make the tow, the more beating is necessary.

The tow, being first dressed or

combed, is sold to the spinners, who reel the yarn as follows:

2 yards	make 1 thread	2 yards
40 threads	1 lea	30
20 leas	1 skein	1600
3 skeins	1 clue	4800

From the spinners it passes to the bleachers, who receive twenty or twenty-one clues for every one hundred and twenty bleached.

Only the coarser kinds of hemp are employed in making cordage; the finer being used for cloth, which though incapable of receiving the delicacy of linen, is incomparably stronger, equally susceptible of bleaching, and possessed of the property of improving its colour by wear.

Hemp is of great importance in maritime affairs; it therefore forms a considerable article of commerce. The cordage and sails of a first-rate ship of war are said to consume 180,000 lb. of rough hemp. In the year 1788, the quantity imported into England was 58,464 tons: which at 20*l.* per ton, amounted to 1,169,280*l.* and which at an average product of one-fifth of a ton per acre, required 292,320 acres for its growth.