Teasels

For many centuries, the dried seed-head of the Fullers' Teasel (Dipsacus fullonum), which figures prominently in the coat of arms of The Clothworkers' Company, has been used to bring up a lustrous polished nap or pile on certain cloths prior to the final finishing process. Several efforts have been made to develop a synthetic teasel or some other alternative to the natural product, but these have met with little success. The teasel raising machine, or 'gig', has been generally replaced by the card wire raising machine, giving higher output, based on rather different principles, and the kind of machine on which most raised fabrics are made today. However, the action of the finest wire brushes is too severe for some cloths with a particularly high quality finish, so, for their makers, Dipsacus fullonum reigns supreme.

History

There are about twelve species of teasel. The two chief kinds to be distinguished are the Fullers' Teasel (Dipsacus fullonum), probably originally introduced from France, and the native Wild Teasel (Dipsacus silvestris), which is found in English hedgerows and gardens but is now ornamental rather than useful. The latter has a more pleasantly rounded shape than its cultivated cousin, is softer, and lacks any suspicion of a hook or claw on the end of each bract or prickle.

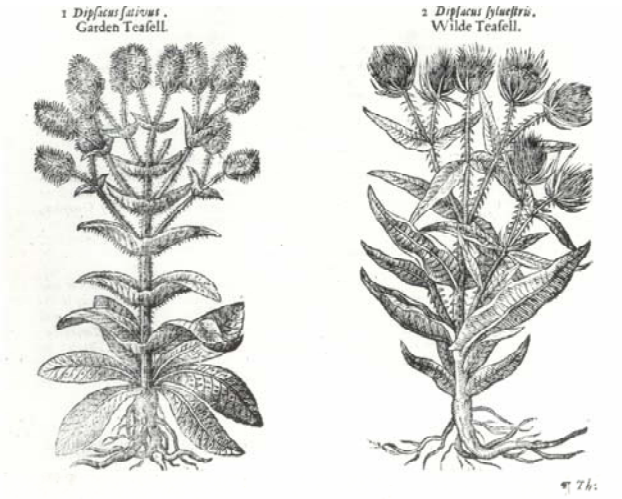
It seems that teasels with straight bracts, i.e. Wild Teasels, were used to card wool, to separate and straighten the tangled fibres before spinning. The Latin for 'thistle' is 'carduus' and there is a school of thought which derives the word 'carding' from this. The word in Isaiah, chapter 34, verse 13, which is now usually translated as brambles or briars or thistles, appeared in Wycliffe's Bible of 1382 as 'tasil'.

It is thought that single teasels were originally used for carding and perhaps also for raising a nap. Later several were inserted into a wooden frame, making what was known as a 'hand card'. By the 14th century the teasels used for carding had been superseded by nails and these in turn were replaced by wires. This must correspond to frequent references in the 16th century Court Orders of The Clothworkers' Company forbidding members to use iron cards and fining those who persisted in doing so.

Geography

Fullers' Teasels were probably once widely grown, in Gloucestershire and Wiltshire for the Cotswold wool and crop only in one part of Somerset, near Taunton. There are intricate reasons for this.

The favoured soil for teasels is a heavy rich clay without too much manure, which produces unnecessary growth and smaller flowering seed-heads. Much of the appropriate land in Somerset is 'teart', signifying an imbalance of the element molybdenum which expresses itself as a copper deficiency in cattle. Before it was understood that this serious cattle sickness could be rectified by the administration of copper sulphate, local farmers were probably more interested in retaining any lucrative cash crop for which their land was suited than those with sound and healthy land were in growing teasels with all their inherent problems: the harvest is labour-intensive, occurs awkwardly at the same time as the cereal harvest, and can be ruined if there is a wet summer in the second season of growth. However, a continuity of husbandry and custom would develop as well as the skill and specialized knowledge acquired in centuries of growing.



Fullers' teasels © Patricia Dale

Growth

Both the Fullers' Teasel and the Wild Teasel are biennials: this year's seed produces next year's seed-heads. The seed is sown in drills in April and is eventually thinned out to four-inch spacings. In mid-Autumn the plants, now about four inches tall, have their tap root trimmed and are transplanted to a foot apart and with three feet between the rows. In the following Spring a good hoeing is necessary.

During the Summer the teasel plant will grow to a height of five and a half feet, with dark green prickly leaves, and with many flowering seed-heads branching from the rigid prickly main stem. It flowers for about three weeks. When the pale blue flowers have faded is the moment to start the teasel harvest. This cannot be done in one pass because only the heads which have finished flowering can be picked, so the harvest may well be spread over a month. Bundles of teasels with six-inch stalks are gathered by hand, using a small sickle-shaped knife held in the gauntleted palm and attached to the wrist with a leather thong. The bundles are then placed astride 'bean sticks' and left to dry in a draughty but protected spot before they are offered for sale in packs of 20,000 heads irrespective of size.

Use

Originally the machine that used the teasels was similar to the 'header' of a combine harvester, the section where spars rotate at the front. The gig's six spar-like battens were frames into which the teasels were set. The battens rotated and revolved on their own axis so as to offer a flat but subtly-hooked face to the cloth. Nowadays the teasel gig has up to 24 'rods' on its rotating drum and the option of two drums to increase productivity.

Teasel heads are knocked tightly into the rods and the rods are inserted into the drum of the machine. Setting up the rods and the teasel gig requires great skill and experience. Between 2,500 and 4,000 heads are needed to cover the drum depending on their size. Uniformity of face, point and strength among the teasels remains all-important. Lack of uniform height can cause stripes to appear in the cloth and particularly hard teasels can cause streaks. In use, a piece of cloth is pulled from one roller to another beneath, and in the opposite direction to, the rotating rods, so that 20-30 feet of gig surface may brush against one foot of cloth surface in one passage or run. The nap must be raised very gradually and the fibres have to be untangled and lifted, not torn from the surface of the fabric. This can be accomplished by using teasels of increasing hardness and sharpness, for a piece of cloth will be given several passages past the teasels, the number depending on the nature of the material and the finish required. The teasel heads may have to be dried and brushed clean at some stage in the finishing process, but they are used until nearly every hooked bract is worn away, which may take about six hours.

English teasels were traditionally the best for the clothworker because they are firm and the downward-pointing hook is well defined. The modern British cloth trade needs roughly 14 million teasels a year, but, since English farmers have stopped producing them, they are all imported from France and Spain, though they are also grown elsewhere.