

structure will be found to consist mainly of three parts. First, there is the straw; secondly, there are bundles of capillary filaments running parallel to each other, and lying upon the straw; and thirdly, the outer rind, too frequently taken for the fibrous portion of the matter, called the cuticle. The cuticle, or rind, is composed of a resinous or gummy substance, which is nearly insoluble in cold water; but when heated to a proper temperature, easily separates from the other constituents of the plant. For this reason, all judicious steepers avoid putting their flax in spring water, or even in water sheltered from the sun's rays, because the object of steeping is to dissolve, or at least to soften the cuticle, and thereby allow the filaments to be separated from it. If it does not arrive at this state, the rind, becomes hard in the course of drying, and prevents the separation which is necessary to produce fine flax.

The breaking and scutching operations are done both by hand and by machinery. Among the small growers the hand is more commonly used than the machine. The two processes are conducted after the following manner:—A block of wood, about five or six feet in length, by ten or twelve inches in width, having deep grooves extending through its entire length, about an inch wide at bottom, and increasing in width, in order that the surface of each groove may present a sharper edge, forms the lower portion of the hand-break. Over this block of wood another is fitted, having one end made fast with a hinge, and the other shaped like a handle. This upper block has two longitudinal edges, shaped to fit in the grooves of the under part of the implement; the flax-breaker, taking in his left hand a quantity of flax, and holding the handle with the right hand, places it between the two surfaces of the break, which, being repeatedly raised and let down with considerable force, breaks the stem without injuring the fibres, and separates the latter from the woody particles and other extraneous matter.

The next operation is separate the fibres from the *shoves*, or woody particles, which is ordinarily performed by a scutching-bat and a scutching-board. The board is fixed firm and upright in the stand, and the handful of flax are inserted in the notch, held in the left hand, and placed so as to project towards the right, when it is beaten with the scutcher several times against the upright board; the portion in the notch being continually changed with the left hand.

In the larger establishments, however, where more concentrated labour is required for the process of scutching, machinery is commonly used. This machinery, in general, does its work in a very effective and rapid manner; yet there is still a lingering prejudice in favour of hand labour, and of the productions of that labour, amongst several classes of the community.

The mill, in general requisition, is sometimes driven by horse-power, but where available by water-power. There are three fluted cylinders—one of which is made to revolve by the power mentioned, and carries the other two round. The flax is placed between these cylinders while revolving, and the stalk by this operation is completely broken, without injuring the fibre. The scutching is performed in the same machine, by means of four arms

projecting from a horizontal axle, arranged so as to strike the stalk in a slanting direction, by means of which the outer cuticle and other extraneous matter are removed.

The crops of flax in Belgium, when reared upon the system we have just described, realize almost fabulous prices. From £40 to £60 per acre is an ordinary return; and for the finest quality of flax, from £80 to £100 per acre has been obtained. The export of flax fibre to France and England is, in fact, one of the chief resources of the little state of Belgium, and it averages nearly one million sterling per annum in value. Leeds and Belfast, especially the former, are the best customers for this fine fibre; and the higher numbers of yarn—those from one hundred and sixty leas (fifteen hanks to the lb.) and upwards—are most exclusively spun from Belgian flax. Some of the Leeds and Belfast spinners have their buyers in the Belgian market, with full authority to purchase on their account, and to select the qualities they may require for the mills at home.

The fineness and excellence of the Belgian flax may, however, be better understood by perusing the following facts:—In the contributions to the Dublin Exhibition, we remarked those of Messrs. Collings, Freres and Co., of Courtrai, and M. P. J. Verbeck, of East Flanders, and Baptiste Van Weil, of Grembargen, near Termonde. These specimens of flax we examined with the best attention we could command, aided by perhaps the highest practical experience in Ireland, and never saw anything to equal them for fineness, softness, and lustre, combined with neatness of handling. The series we examined included three samples from Lokeren, in the Pays De Waes, all of beautiful quality, some white and blue Bruges, and three fine specimens of Courtrai. Few of these qualities were worth less than £70 per ton; and some of them run as high as £150; while the finest of all was estimated at £200 per ton. But even this high price is considerably outdone by the fibre from which the Mechlin and Brussels lace is made, as it has been known to sell for £4 per pound weight, when hackled, or nearly £9,000 per ton! Yet, in this extreme case, so little does the value of the material enter into that of the exquisitely fine and tasteful product, that a lace handkerchief, weighing about two ounces, has been known to sell for 2,500 francs, or £100.

The Importation and Exportation of Flax.

It may not be superfluous to furnish the proportional quantities of flax supplied by each continental state. The return is for 1850, which will convey a pretty clear idea of the nature and extent of our annual demands, upon the foreign grower; there is no statement published of a later date.

Imports of Flax and Tow, or Codilla or Flax and Hemp, into Great Britain and Ireland, for the year 1850.

FROM	CWTS.
Russia*	1,240,766
Prussia	263,271
Holland	133,240
Belgium	107,336

* The following note on the flax trade of Russia will, perhaps, be read with interest at the present moment. From a statistical report of M. Tschoborski, Privy-councillor to the Emperor, we learn these facts:—M. T. estimates the average annual value of the Russian flax and hemp crops at 36,523,000 silver roubles, or about