

made up in bundles or stones of fourteen pounds each. One method is represented by Fig. 25, in which the sorter lays the stricks lengthwise over three bands, with which the bundle is tied when finished.

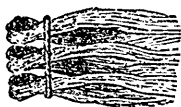


Fig. 25.

By another method a twist is given to the strick. It is then doubled at the centre and the two ends brought together as in Fig. 26. A band is then passed round their twisted ends, making them ready for bagging. Two hundred weight are put in each bale, or sixteen stones of fourteen pounds each. The flax is now ready for market.

A store room for flax is no unimportant part of a flax factory. If flax is kept too dry it loses in weight and quality. It should be closely packed together in a dark and damp apartment.

Flax has now been brought to that state in which it is purchased by the spinner. But before saying anything of spinning, a description of Watt's chamber for steaming will serve to complete the routine of flax preparation.

It has been before observed that the only point of difference at the present day between the system of Schenck and that of Watt is, that in the former, fermentation at a high temperature is its main feature, while in the latter, the chief characteristic is maceration without fermentation. To Watt, however, is due the extensive introduction of wet-rolling.

A chamber, of which Fig. 27 is a section, may be described as a hollow, air-tight vessel, made of cast iron plates. It is about twelve feet in

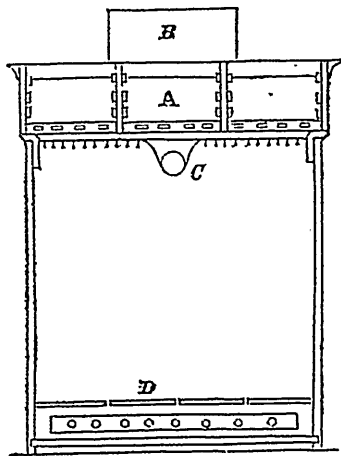


Fig. 27.

length, six feet in width, and six feet in depth, including the space between the false and true bottom, which is about nine inches in depth; but including the condensing cistern, (A,) on the top of the chamber, which is sixteen inches.

The hot water cistern, (B,) set in the condensing cistern is three feet square. A tube, (C,) in the interior of the chamber and running lengthwise is connected with it, by which the chamber is two thirds filled with liquor immediately before steam is admitted.

In the interior of the chamber we find a steam-pipe between the false and true bottom pierced with holes to allow the escape of steam. Above the steam-pipe is the false bottom (it consists of perforated plates, supported by frame work on feet; also a bar connecting the two sides of the chamber to prevent their expansion or collapse.

On the outside of the chamber are found an air-valve, for the admission of air when steam shut off; two cocks to indicate the quantity of water in the chamber; and two doors, one at each end opening outwards, each 2 feet 5 inches square. These are used for filling and emptying and are screwed up and made steam tight by gaskin of tow. There is also a pipe for letting steam to the chamber, exhaust steam from the engine is used,) and another for the escape of the steep liquor. Surplus steam escapes by a safety valve on top.

When flax is ready to be taken out of the chamber, the steep liquor is drawn off into an underground cistern, and there mixed with water to overflow from the condensing cistern with view to its future use in other chambers. In the same regard is not had in practice for a condensing surface on top of the chamber as the case of Watt's system exhibits.

The test by which flax is known to be sufficiently steamed, is the easy separation of the dermis between the finger and finger and the All subsequent operations in this system, steaming, drying, scutching &c., resemble those already described, and require no separate notice.

Figure 28 represents a ground plan of a Flax Factory on the system of Schenck. A is the boiler-house; B, the engine room; C, the seed mill; D, the seeding house; E, the steeping house for the vats; F, the wet-rolling house, both of which are under the same roof; G is the tow-room; H may be used as a store house; I is a workshop; J and K are the houses; N is the reservoir which supplies the establishment with water, among other things the tank L, in which water may be heated by steam for the vats; and M is the store.

Grounds for a stack-yard and drying field are usually attached to a rettery of this description.

Flax passes from the rettery to the store, then to the spinning-mill, from which it is selected and roughed. The finer qualities are taken to the flax-breaker, where the ends are cut off. These are called cut-line, and are spun to low count.