

There are two methods of retting in common use, namely, dew-retting and water-retting. In the former case the flax is spread in a thin layer in rows on the grass, which should be short and have a level surface. It is turned at frequent intervals with a long pole. The length of time required for retting varies with the character of the weather, and will extend over several weeks. Two acres of grass land will be required for each acre of flax. When it is found that the fibre separates readily from the shoves, it should be lifted carefully on a dry day and tied up again into bundles. Provided the flax straw is perfectly dry it can be tied up into much larger bundles than before. If the weather is wet, drying may be hastened by setting the flax up on end as shown in fig. 8.

Dew-retted flax is not so uniform in quality as water-retted flax, and fetches a considerably lower price. This is what might be expected, as it is much more exposed to weather conditions.

Water-retting produces the highest quality of fibre, but it requires much more judgment and precision to carry the process out properly. Fermentation due to the action of bacteria goes on much more rapidly in the water. As mentioned previously, the fibres occur more or less in bundles. The object of retting is to break down and dissolve the tissues between and around these bundles, so that the latter may be



FIG. 8.—Flax set up to dry.

readily separated. The fibre-cells composing the hundle are held together by a gummy substance, and, if the retting is too prolonged, this gummy substance also dissolves and the fibre-cells become separated from each other. The result is that the flax stem, when pulled has lost its strength and breaks across as easily as a piece of wheaten straw. Much, therefore, depends on taking the flax out of the water just at the right time. On the other hand, if the flax is retted insufficiently, it will be much harder to separate the fibre from the shove. The work of scutching will be more difficult to carry out, and will be accompanied by greater waste of fibre. Of the two evils, however, the second is certainly the lesser.

Although the main features of water-retting are described below, it must be understood that a full understanding of the subject in all its details can only be gained by several years' experience.

The water used for retting should be soft and free from iron. It is possible to treat water containing lime with chemicals so as to soften it, but this adds considerably to the trouble and expense. The pond used for retting should be constructed, if possible, in a clay soil. Where soft water is not available, it may be possible in some cases to fill the pond with rain water some time before it is required, but it entails considerably more trouble to put the flax hundles into the tank, if it is already full of water. The amount of water used in proportion to the flax steeped varies in different districts.