

inherent to the plant, but to the want of experience on the part of many of those who embarked in the manufacture.

Profitable only
with natural
advantages and
care.

Fibre has been produced with profit, when labour has been procured at a moderate rate, and when there have been the natural advantages of abundant raw material, water for motive power and for washing.

But it must be borne in mind, that a good price is only obtained for the produce when every part of the process is carefully conducted, and when there is no false economy of labour, or undue haste in conducting the manufacture.

The very best parcels which have been sent to England, and which realized the highest prices in the London auction rooms, have generally been prepared by men of small capital, who, producing only a limited quantity, have found the necessity of minute care and attention to every detail. Experience has shown that under favourable circumstances and with water power, this description and quality of fibre can be prepared ready for delivery at the mill at a cost of £14 a ton. And, if this can be done on a small scale, much more should it be practicable when large operations give scope for systematic and economical division of labour.

Summary.

The chief points in the manufacture on which the production of a good quality of fibre depends, appear to be as follows.

Selection and
preparation of
leaves.

1. The careful selection of the leaves; which should, if possible, not be in any way damaged or decayed. In practice, after a mill has been established for some time, the leaves that have from fourteen to twenty months growth will be readily obtained and found to be most profitable. When the loss of the best fibre by tow, which is incurred by the excessive scutching required to get rid of the "croppy ends" and the "straw" is taken into account, it is a question whether it will not pay to split the leaves and strip off the midribs and hard margins. Neither should the strong butts ever be allowed to pass into the machine, as is too frequently in the case, the hope of getting a longer fibre, as the effect is to produce "coarse red ends," which materially deteriorate the value.

Attention to the
machinery.

2. The machinery must be very carefully attended to, being kept clean and in perfect adjustment. The employment of a flow of water on the stripper has a very beneficial effect, both on the machinery and on the fibre produced.

If Mr. Kelly's improved contrivance for effecting the adjustment of the scraping machinery while in motion, should succeed in practice, it will admit of the adjustment being rendered more perfect than is possible under any present arrangement.

The use of a second stripper, through which the fibre passes direct from the first, facilitates the after treatment.

Washing.

3. Thorough washing of the fibre after it has been reduced to finely divided bundles, and immediately after leaving the stripper, is resorted to for the production of the best qualities. As any maceration is to be avoided which will tend to make the fibre soft and cottony, long soaking is not suitable; therefore, as the matter to be washed from the fibre adheres with considerable tenacity, mechanical force must be applied to effect the washing in a sufficiently short time.

This constitutes the essential feature of wet-scutching, but none of the forms yet proposed for the application of this process are either perfect or admit of universal application. The error appears to be in most cases in applying too violent a force. When there is an abundant supply of water, and sufficient pressure, the method that appears most promising is to wash the hank in a strong jet with slight percussion. On the other hand, if water is scarce the amount of percussion must be increased, but in no case must the breaking up of the fibre be carried to an extreme.

Rolling.

4. Bruising, excepting under water, and even handling of the liberated fibre, should be avoided as much as possible until it is quite free from the vegetable tissue. Rolling may then be used with advantage, but not till the washing is quite complete. The object proposed to be gained by rolling in this stage is not only to save time in drying, but also to consolidate and define the bundles of fibre. This latter point is a step in the process which does not appear to have attracted the attention it deserves. An examination of the Native-dressed fibre shows that it is extracted from the leaves in long delicate bundles of great