

main building, carefully examined in every part, and freed from knots or uneven threads. It is then drawn through the teasing machine, the object of which operation is to raise up the loose filaments of the yarn into a nap. The teasles used for this purpose are imported, but it is Messrs. Barber's intention to grow them near the mill; and as this plant succeeds well in Canada, it is to be expected that the home-raised article will soon expel the imported one. Although many attempts have been made to supersede the delicate little hooks of the teasele by appropriate machinery, yet all efforts have hitherto failed. The operation of teasing necessarily draws out the filaments of the wool unequally, and it becomes essential to cut them off with different degrees of closeness, according to the appearance the cloth is desired to possess. Hence the cloth is passed through the shearing machine. The last finish given to cloth is by pressing, which is effected by powerful hydraulic machines; after which the pieces are formed into rolls, weighed, ticketed, and despatched to the store room.

It is impossible to pass through such an establishment as we have endeavored briefly to describe, without being struck with the mutual dependence of the manufacturer and the farmer. Ordinary Canadian wool is too coarse for the finer varieties of cloth, and consequently it is necessary to import a certain quantity of the finer sorts, which, by the way, could be produced in Canada just as well as in the States or in England, if farmers would give due attention to the subject. If wool be examined under the microscope, the sides of each filament will be seen to be serrated, and wool with the finest serrations is used for making superfine cloth. The finest Saxony wool contains generally about 2,700 serratures to a single inch, Merino wool 2,400, Southdown 2,080, and Leicester wool not more than 1,850 serratures to an inch. The process of felting depends upon these little serrations becoming entangled one in another. If the wool is coarse it does not felt easily and thoroughly, consequently very fine and compact cloth cannot be made from wool containing a small number of serrations. It is generally understood that the longer the wool, the less the number of serratures to the inch; hence short wools are preferred for the cloth manufacture, and long wools for the worsted manufacture. It should be the object of the farmer to endeavour to obtain short-wooled sheep, and by proper breeding and care make them preserve that characteristic. The splendid wools which now come from Australia originated from a few Merino sheep which were sent there. The climate, being dry, suits the breed admirably, yet the real Merino

sheep cannot succeed in England, where the climate is damp, but it does well in Canada.

We have not thought it advisable to describe the different stages of the manufacture of different kinds of wool, such as long and short wool. Although it may not be out of place here, to mention briefly, that short wool is used for the manufacture of cloth, long wool for worsted goods. Short wool is best adapted for carding, and long wool for combing. Combing destroys to a certain extent, the felting properties of long wool, carding has no effect on short wool. Hence the great distinction between woollen cloth and worsted goods is, that the wool in the former retains the property of felting, but in the other it has been in part deprived of it. In the samples of cloth and flannel shirtings, which are to be seen in abundance at Messrs. Barber & Brothers, no one will fail to be struck with the excellent adaptation of these fabrics, to both the winter and summer climate of this country. The close compact texture of some of the winter goods, would enable the traveller to bid defiance to the most cutting wind, and on the other hand the light texture of the summer cloths and shirtings, are admirably suited to the climate of Canada. It is almost needless to say, that due encouragement given to Canadian woollen manufactures, such as those we have been describing, will rapidly render us independent of the foreign manufacturer, who buys our wool at 25 cents a pound, and returns it to us in the form of cloth, at \$1 25, thus appropriating four-fifths of the value of the manufactured article; not a cent's worth of which should have been earned out of the country.

THE PROVINCIAL EXHIBITION.

Good fortune has not favoured the Kingston Exhibition this year. The weather was unpropitious at its commencement, and unfavourable at its close.

In a financial point of view, it has not been successful, and as a representation of the manufacturing industry of the country, it must be considered to have fallen below the mark. The representative short-comings are to be attributed in a great measure, to the geographical situation of Kingston, which places it so far from the manufacturers at Toronto and west of that city, that the great drawback of cost and loss of time, and risk of danger in bad weather in sending articles to the Exhibition, was largely instrumental in inducing many manufacturers to refrain from forwarding their contributions.

Among the growing manufactures of the Province, which a few years since were unknown as articles of domestic production, we may mention among