Dr Ure in 1837 made a series of experiments on differ­ent wools, and published the results. He found that the filaments of the finer qualities varied in diameter from 1/1100 to 1/1300 of an inch, which agrees pretty nearly with Dr Parry’s table.

2. The softness of the wool is a quality of not less im­portance than its fineness, the more especially as the per­fection of the felting property mainly depends upon it. This quality is easily distinguishable by the touch, both in the raw wool and in the finished cloth, which, when made from soft wool, is itself extremely soft. Such cloth bears a much higher price than cloth equal in other respects, but made from harsher wool.

Of all the European wools, that of Saxony seems to be pre-eminent in point of softness. When England only im­ported about 2,500,000 lbs. of wool from Germany, “ Saxony cloth” bore a very high price in proportion to cloth from all other kinds of wool ; but now that Germany affords us near­ly 30,000,000 lbs., the supply reaches the demand, and the price is not excessive.

All the European wools yield to that of India in respect of softness. It is grown on sheep of small size, thc wool of which is short and soft near the skin, with long coarse wool or hair growing through it, similar to what we have described in the case of the beaver and other furred ani­mals. It should be observed, that it is chiefly upon the softness of the wool that the *felting* property depends ; but as we shall hereafter have occasion to speak more fully of that property, we now proceed to the quality next in order.

3. What is called the *soundness,* which is only another name for the strength of the staple, is obviously of less importance in clothing wool than in combing wool. Still it is not wholly disregarded in the former, as the durability of the surface of the cloth will mainly depend upon it.

4. The colour of the fleece, that is, its whiteness, is ob­viously an essential quality, whether for white cloth or for light and bright colours. Indeed even the darkest colours are probably richer, and possess more lustre on a clear white ground, than when the wool is dark or mixed. Black and brown woolled sheep are not uncommon in most of the countries of Europe ; but their wool is of less value, and there can be no object in encouraging the breed. The black-faced sheep of Norfolk, which is also to be met with in other English counties and in Scotland, and which pro­duces fine wool, has this defect, that dark fibres are fre­quently to be met with. In Canada, the whole of the pea­santry is clothed in a domestic cloth, called by the inhabi­tants *étoffe du pays,* which is made of a mixture of black and white wool.

The Romans were particularly careful in expelling the dark-woolled sheep from their flocks ; and we are told by Virgil, that they even examined the tongue and palate of the rams, and if they exhibited any blackness, such sheep were rejected. It is said that a dark soil imparts a tint to wool, which renders it wholly unfit for white or any bright cloths.

5. The cleanness of the wool is another quality which the purchasers cannot disregard, as its influence on weight is so conspicuous. Here however there is a difficulty, which requires a very nice balancing of opposite and conflicting qualities, and which demands explanation. All wools, as they come from the sheep’s back, are more or less greasy to the touch. The cause of this greasiness is the presence of a peculiar kind of potass soap, secreted by the animal, and called by the farmers the *yolk.* The softness and flexi­bility of the wool depends almost wholly on the abundance of the yolk ; yet as it readily forms a lather with water, and does not add to the value, but only increases the weight of the fleece when shorn, it should be washed out. In Bri­tain this is done before shearing ; but this is not sufficient

to get rid of the yolk in any sheep, and especially in Me­rinos.

The grease, although so necessary to the softness of the living fleece, has been found to be injurious to the wool when shorn ; as a sort of fermentation takes place, and the fleece is rendered hard and harsh by the very substance which softens it while living.

After this explanation, the reader will perceive that, as far as mere weight is concerned, the grower is interested in washing out as small a quantity of the yolk as possible, while the buyer is interested in having the wool as well washed as possible. Both are interested in the presence of a good yolk originally, as the quality of the wool is there­by improved. Fermentation from imperfect washing is not uncommon. If this proceed to a great extent, the wool is injured ; but a moderate degree of fermentation is said to render the wool better suited to manufacture.

6. The weight of the fleece is a quality of the utmost importance to the grower ; but it must not be obtained by the sacrifice of fineness or of cleanness. Weight, as we have seen, may arise from the presence of yolk. It may also arise from coarseness ; and even where it arises from length of fibre, that is a quality which generally supposes a certain degree of coarseness. An abundant supply of food will sometimes increase the length of the staple ; but if this be accompanied by increased coarseness, as it ge­nerally is, it is not to be desired. What the grower wants, and what the buyer cannot object to, is that weight of fleece which arises from the closeness of the pile on the back of the animal ; a quality which supposes greater fine­ness, and generally greater softness, though usually accom­panied by extreme shortness of staple.

With regard to long wool, or combing wool, as it is indif­ferently called, the desirable qualities are the same, with the addition of *length of staple,* which stands at the head of all. Very great length of staple was formerly of more import­ance than it has been of late, because the mode of combing wools of moderate length was not known. We have seen accounts in old annual registers and magazines, of wool of twelve, sixteen, and even twenty inches staple ; but that could only be produced by leaving the sheep two years unshorn. We have however now lying before us wool of eleven inches staple, but it is extremely harsh and coarse. The usual length of combing wool is from three to eight inches ; but wool of two inches can now be combed, which admits of the use of very *fine* and *soft* wools, provided they be of *sound staple,* for the production of the finer Merinos, mousselines de laine, and the better sorts of hosiery.

As the comber dispenses with length, soundness of staple becomes extremely important. Without soundness, the short and fine wools would not bear the operation of the comb ; with it the skilful comber will now venture upon wools, to comb which would a few years since have been deemed an impossibility.

The other qualities of wool,—colour, *i.e.* whiteness, clean­ness, *i*. *e.* freedom from yolk, and weight,—are of as much importance in combing as in clothing wools, subject, of course, to the pre-eminence of the other qualities which we have enumerated.

We now come to consider the *sources of supply,* that is, the various wool-growing countries whence the large de­mand of Great Britain has been and is satisfied.

Various estimates have been made of the number of sheep in Great Britain, and of the quantity of wool produced; but the earliest which enjoys any reputation for accuracy is that of Mr Luccock, in his Treatise on English Wool, in 1800. According to his very minute calculation, the quan­tity of wool produced in England alone in 1800 was 384,000 packs, of 240 lbs. each, or 92,160,000 lbs. It is thought that the number of sheep has not greatly increased since ; but Mr Hubbard, who in 1828 submitted to the Lords’