

### CHINA WOOL.

The principal sources of supply for carpet wools are China, East India, Russia and Turkey. Some wool is imported from Cordova in South America and some small lots come also from Germany and Austria, to say nothing of the Scotch clip, which has been taken very freely during the past year for American account. A large portion of the carpet wools used in this country come from China, and an interesting chapter could be written on China wools alone. Two-thirds of the China clip is filling wool. The best of these wools are used in Axminster carpets, and the others in ingrain carpets. The stock which makes up an ingrain carpet is filling wool in varying proportions, noils and goat hair. China wools are bought freely by Philadelphia mills, and spinners of yarns for ingrain weavers. China wool ranges in price in this market from 11 cents for the most common kind of filling up to 18 to 19c. for best combing or ball China. The latter shrinks 30 to 35 per cent.; it is used for the same purposes as East India wools—in Axminsters and that class of goods. The wools which come from China are no better than they ever were, and it is doubtful if they have changed in character for thousands of years. Once in a great while a driblet of wool will be received which shows a slight improvement in quality or grade, but it cuts no figure. The methods of transportation in China are very primitive. The wools only get to market when the rivers are high and navigation is possible. If there should be a very dry season and the beds of the rivers become comparatively bare, a considerable portion of one year's clip might be carried over into the next year, so that it has been very difficult to estimate exactly what the China clip amounts to. The country depends largely upon its rivers for its methods of transportation. A person who will look at the map of China will find that a chain of mountains extends from west to east nearly across the country. The wools grown north of this chain find their way largely to Tien-Tsin, which is some fifty miles from the Gulf of Pechili up the Yalu river. The wools which are grown south of the range are brought to Shanghai mostly. The wools come down with other merchandise, including bris'les and straw braid, for hats, large quantities of which are for this country. Indeed the great bulk of the straw braid used for hats comes from there, especially the best stock. Goat skins with the hair on, from which are made the large overcoats worn by motor men and lumber men and other laborers in this locality, are obtained from there, and they all come to the coast for shipment, together with the wool.—American Wool and Cotton Reporter.

### SHRINKING OF COTTON KNIT FABRICS.

An American contemporary, in replying to a query re the irregular shrinkage of cotton knit fabrics, says: "I do not believe there is any way of shrinking cotton knit cloth so that you will not have to make any allowance for shrinkage, but the garments should all shrink about the same, so that when the goods are finished they will be very nearly uniform. If the cloth is not all knit the same and handled the same from the knitting machine to cutter, the lengths of the garments will vary. For instance, take two pieces of cloth knit on the same machine and with the same yarn, one knit with a loose stitch and the other with a tight stitch; cut these exactly the same, and you will find that the loose knit garment will be shorter than the tight one when finished. Cloth knit with a tight take-up and with a loose take-up will

also vary. The only way to have the goods come out evenly when finished, is to first see that your yarn is running even; then see to it that your machines are all knitting the same number of stitches to the inch, and that the take-ups are all working evenly; do not have one machine running with a tight take-up and the next one with a loose one; or one with a tight stitch and one with a loose one. For, if you do, you will have to make different allowances for each and every machine. Do not have the cloth rolled up on rolls either at the knitting machine or anywhere else throughout the mill, if you can possibly avoid it, as the uneven tension the cloth gets in being rolled will make an uneven shrinkage after leaving the cutter. As good a way as any I know of to shrink the cloth is to steam it and then run it through hot rollers to dry. This process has a tendency to put a gloss on the goods rather than take it off.

### IMITATIONS OF MERCERIZING.

All good things have their imitations, and mercerized cottons are no exception to the general rule. Some of the cheap goods on the market are nothing more than highly finished satzens, the lustre being produced by sizing under pressure of hot rolls. Such a finish is extremely fugitive, and not at all to be compared with the permanent lustre imparted by the mercerizing process. There has grown up in many quarters a prejudice against mercerized fabrics because of these fake finished goods parading as mercerized, and to the ordinary buyer these are frauds extremely difficult of detection. Buyers should be protected against such misrepresentation by the merchants, who presumably know what they are selling. It is found that the highest grades of goods, those showing the most silk-like lustre, are produced with yarns made of the long staple Sea Island, or Egyptian cottons mercerized in the yarn before being woven into fabric. While good effects may be produced in plain woven goods and a high gloss obtained when mercerized in the piece, still, in the very nature of the process, it is apparent that the silk-like effect produced from weaving mercerized yarn greatly surpasses that obtained through the piece mercerizing process.

The change in the microscopic appearance of cotton mercerized under tension is only noticeable in those fibres which are actually stretched, and not in those which are not stretched. Both in yarn and fabrics, cotton which has been mercerized under tension, or which has been stretched while in the mercerizing liquor, behaves differently according to the length of the fibre, the method of spinning and the twist. Yarn consisting of long fibres shows the change in the greater proportion of the fibres affected, while that consisting of short fibres a much smaller proportion affected by the mercerizing process. In this latter case, the shorter fibres slip upon each other and are consequently not stretched. This explains why short staple cotton may not be used to produce either in yarns or woven fabrics the silk-like lustre. The long staple cotton is held by the twist, and as it cannot slip, must be stretched in the process. The silky gloss obtained by mercerizing under tension is due partly to the rounding by stretch of the individual fibres and of laying them parallel to each other, enabling them to reflect the light uniformly. The action of the caustic soda upon the cuticle of the fibre destroys it and renders the fibre more transparent and more glossy in its appearance. It will, therefore, be seen that short staple cotton, cotton that is imperfectly combed, and carded cotton, are not adapted to show the best results in mercerizing. While these inferior