CARPETS. Woven C., such as are now so common in this country, were first used in the east, where the custom of sitting cross-legged on the floor still renders them especially useful. Our rude forefathers covered the floors of their houses with rushes, hair, or straw; and in Norwegian farm-houses, where so many of our ancient customs still exist, the floor of the best room is commonly strewed with juniper-twigs. The first step towards a woven carpet was made by plating rushes to form a matting.

The principal varieties of C. now in use are the Turkey, the Axminster, the Brussels, the Wilton, the Venetian, the Dutch, the Kidderminster or Scotch, Whytock's Tapestry and Velvet Pile, and the Printed Felt Carpet.

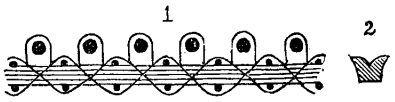
The real Turkey carpet is made in one piece; those manufactured for the orientals are usually too small for use in this country. The patterns consist merely of curved and angular strips, of variegated but dark and unobtrusive colours. The warp is of strong linen or cotton, to which bunches or tufts of coloured worsted are tied according to the pattern, a drawing of which is placed before the weaver to copy. The surface is afterwards shorn level. Rugs are made in a similar manner; the coloured worsteds are tied very rapidly by young girls.

The *Axminster Carpet* is merely the English-made Turkey carpet, formerly manufactured as above at Axminster, in Devonshire. They are usually made to order, and of the size required for the room; from the tedious nature of the process of manufacture, they are very expensive.

Templeton's Patent Axminster Carpet is a very beautiful fabric, very much resembling that from which it derives its name, but it is wrought on the chenille principle.

The *Brussels Carpet* is a mixture of linen and worsted, but, like the Turkey carpet, the worsted only is shewn on the upper surface. The basis or cloth is a coarse linen fabric, and between the upper and under threads of the weft, several (usually five) worsted threads of different colours are firmly bound in. The pattern is produced by drawing to the

surface, between each reticulation of the cloth basis, a portion of the worsted thread of the colour required at that spot to produce the pattern; these updrawn portions are formed into loops, by being turned over wires, which are afterwards withdrawn, and the loops thus left standing above the basis form the figured surface of the carpet. This will be better understood by reference to the diagram, fig. 1, which is a slightly magnified section of a Brussels carpet, cut across the wires and the threads of the weft. The large dots above are the sections of the wire; the smaller dots, those of the weft or shoot threads; the waved lines, the warp; the parallel lines, the five coloured worsted threads; and the loops over the large dots are the updrawn worsted threads forming the surface of the carpet. The machinery and processes by which this arrangement is produced are rather complex, and require to be seen to be fully understood.



Carpet Weaving.

The *Wilton Carpet* is made like the Brussels, but the wire has a groove in its upper surface, fig. 2, and instead of being drawn out, it is liberated by passing a sharp knife through the worsted loop into this groove, and thus making a velvet pile surface instead of the looped thread.

The *Venetian Carpet* is produced in a common loom, and the pattern is all in the warp, which alone is visible, as it encloses the weft between its upper and under surfaces. The patterns are generally checks or stripes; the latter are chiefly used for stair carpets.

The *Dutch Carpet* is a coarser and cheaper variety of plain Venetian, sometimes made wholly of hemp, or of a mixture of coarse wool and cow-hair.

The *Kidderminster* or *Scotch Carpet* has usually a worsted warp and woollen weft, and the pattern is made by the combination of the colours of each. Three-ply C. of this kind are made especially in Kilmarnock. This is the most durable of the moderate-priced C., the patterns are not so brilliant as those of the Brussels or the Tapestry, but, being ingrained and woollen throughout, they retain their character until worn through. This, and the three immediately preceding descriptions of carpet, exhibit their patterns nearly similar on both sides, and are therefore reversible.

Whytock's Tapestry and Velvet Pile Carpet, as it is now frequently called, is becoming very extensively used as a cheap substitute for Brussels and Wilton, which it is made to resemble very closely in the brilliancy and variety of pattern. The manufacture of this carpet is very curious and ingenious. Instead of five coloured yarns, only one of which is drawn to the surface at any one place, while the other four remain buried between the upper and under threads of the cloth basis, a single coloured yarn is used, and the variety of colour produced by dyeing it of various colours at intervals of its length. The yarn is coiled upon a drum, and printed by means of rollers in such a manner that when the threads that encompass the roller shall be uncoiled and laid in lines side by side, they shall present an elongated printing of the pattern, so that a rose, for example, the outline of which should be nearly circular, will be an oval, with length equal to four times its breadth. When, however, the thread is looped over the wire, four inches of yarn being used for an inch of the carpet pattern, this elongation is exactly compensated, and the rose appears in its proper proportions. The machinery required for this is, of course, much simpler than that for the Brussels, only one yarn having to be looped, and that always in the same manner.

The *Printed Felt C.* are, as the name implies, simply made by printing colours on felt. These are chiefly used for bedroom carpets.

A very beautiful fabric has also been introduced, called the *Patent Wool Mosaic*, formed by cementing a velvet pile upon plain cloth. It is used for rugs, &c. The pile is formed by stretching lengths of woollen yarn between plates of finely perforated zinc, placed several yards apart, the colours of the threads being arranged so that their ends shall shew the pattern. The mass of yarn is then enclosed in a case, open at both ends, and compressed without deranging the fibres; and by means of a piston or ram at one end, a portion of this mass of yarn is forced forwards, the ends thus projecting are glued to the plain cloth, and when dried, are cut off to the length required for the pile. In this manner, several hundred slices are made from one setting of the yarn mosaic, and as many rugs produced.