

three annas per head at the utmost. It being all manual labor, the average daily amount of work done on a loom weaving a carpet 9 feet in width comes to about 3 inches to 4 inches, so that a carpet 12 feet by 9 feet takes about six to seven weeks to complete, taking absences and holidays into consideration. When the whole carpet is thus completed, it is got down from the loom, spread on the ground, well brushed and dusted and folded. Two or sometimes three of these are then packed into a bale and forwarded by rail to Bombay or Kurrachee for export to Europe.

Coming now to the cost of each loom, it may be easily conjectured that it cannot be heavy; in fact, its cost rarely exceeds Rs. 75 per loom*. To make a carpet 12 feet by 9 feet a quantity of warp of the thickness of 10 to 12 strings to an inch, weighing from seven to eight seers or 80 tolahs, has to be used. This costs Rs. 20 to Rs. 25 per maund (pucca.) The Pushm required for the above size weighs 30 to 35 seers and costs Rs. 30 to 35 per maund, dyeing costing about Rs. 10 per maund. Instead of the Pushm used for the welt, silk in various shades is sometimes substituted for the manufacture of richly woven carpets, orders for which may oftentimes be received from native princes. The whole working is altogether identical, the work is very slow, as no more than 1½ inches to 2 inches can be woven during the course of a working day of ten hours.

Besides the boy weavers and their instructors, the staff of a well managed carpet factory may consist of the under-mentioned hands.

Drawing Per Month.

One manager	Rs. 60 to Rs. 75
One designer	Rs. 30 to Rs. 40
One color filler	Rs. 20 to Rs. 30
One weaving designer	Rs. 15 to Rs. 20
One d. er	Rs. 20 to Rs. 30

besides Chaprasi, Chawkidars, etc.

The most important individuals in the above list are the dyer and the weaving designer, and carpet manufacturers experience considerable difficulty in securing the services of capable persons in this line. Another great difficulty to be encountered in the establishing of new factories, is the question of experienced weavers. The demand for them far exceeding the supply, they prove troublesome to the factory managers. Although their monthly wages are sufficient to meet their reasonable daily wants, the weaver class generally squander away their small income and incur debts which have many a time to be met by the proprietors of these factories, otherwise the debtor may be sent to prison and the work on the looms may cease indefinitely. When new hands have to be secured the proprietors have to advance sums of money to the instructors of the boys to pay off their debts at the last factory. Being not a steady class of people they oftentimes exchange berths from one factory to another. The weavers as a rule belong to the Mohammedan community, and so do not work on Fridays. On the whole this industry may be considered a well paying one and worthy of a favorable consideration by many a capitalist in Bombay.—Indian Textile Journal.

FANCY YARNS.

To spin knickerbocker filling an extra process is necessary, and the process of carding is different from that used for the production of ordinary yarn. The lumps or nubs that are the distinguishing characteristics of knickerbocker filling are formed by the introduction of wool noils or silk sweepings into the cotton during the process of picking. Before using they are bleached or dyed, and frequently they are dyed various colors

or shades to be used in the same lot of filling. The additional process consists of the proper perforation of the nubs for amalgamation with the cotton. When first received the sweepings may not be sufficiently curled or matted together; then it will be necessary to put oil on to make them mat. Generally when received at the mill they are thoroughly matted together and after application of the oil they quickly mat. In both cases the lumps are too large, and must be reduced in size by running them through a wool card. Once through the card is not sufficient and it is frequently necessary to run them through six or seven times in order to reduce the lumps to the desired size. The size of the lumps wanted will depend on the quality of the goods to be manufactured, the general rule being the finer the cloth the smaller the lumps, and the coarser the cloth the larger the lumps; but it is a matter that must be decided by those in charge with reference to each particular case. When there is no wool card that can be used for the reduction of the nubs an old cotton card can be fitted up for that purpose without much trouble or expense. Reverse the direction of the teeth of the flats by reversing the ends of the flats, and run the sweepings through the card with the flats in that position.

It may be necessary to run the sweepings through a number of times. Underneath the cards should be kept well cleaned, as the nubs to be used fall under the cards, and should be gathered up clean, which will not be the case if dirt is allowed to accumulate under the cards. The mass delivered at the front of the card is not to be used for nubs, as it is too large and soft, and is to be run through as many times as necessary to reduce it to the proper sized nubs. After a sufficient quantity of nubs of the desired size is produced, it is taken to the intermediate picker and sprinkled on the apron. The quantity used will vary according to the closeness of the nubs wanted in the filling. For a fairly nubby yarn, about 11 per cent. of the weight of the lap in nubs is sprinkled over the apron, and from that up to 18 per cent. is used to produce a close, nubby yarn. That is about the largest quantity of nubs that it is safe to use. When the laps on the intermediate are finished they are taken to the finisher cards.

The flats on the finishers must be lifted so that they will just straighten the fibers without carding them or taking the nubs. The amount that the flats are to be lifted will have to be decided by the carder after experimenting a short time, if he never ran this class of work before. From the finisher cards the sliver is carried to the drawing frame, and put through only one operation of drawing. Then the cans are taken to the slubber, and the sliver is reduced to .41 or .62 hanks, according to the number of filling wanted. From the slubber the roving goes to the fine speeder, and the .41 hank is reduced to two hank roving, and the .62 hank is reduced to hank and a half roving. The roving is now ready for the spinning frames. From this roving numbers ranging from 6s. to 22s. may be safely spun in the ordinary manner. When the nubs are of various colors, it gives cloth a variegated look that is pleasing to the majority of people. This filling is largely used on women's dress goods, and if the nubs are formed of wool noils instead of silk sweeping, it gives the cloth an appearance of being made of better material than it really is. It is not a favorite filling with the weavers, as the nubs often choke the eyes of the shuttles and cause a great amount of labor.

This filling is also spun in wool, and used for fabrics intended for both men's and women's wear. Another variety of yarn, sometimes called lug yarn, is used for both warp and filling, but largely for filling, and is spun in both cotton and wool. The characteristic of this yarn is an alternating of thick and thin places throughout its length. The thick parts are about of an equal length, and occur at regular intervals. This regular variation in thickness is obtained by removing one or more teeth from the gear of the front roller. This imparts an

*Rs means rupees. The nominal value of the rupee is 50 cts., but the current value, owing to depreciation of Indian silver, is only 30 or 35 cts.