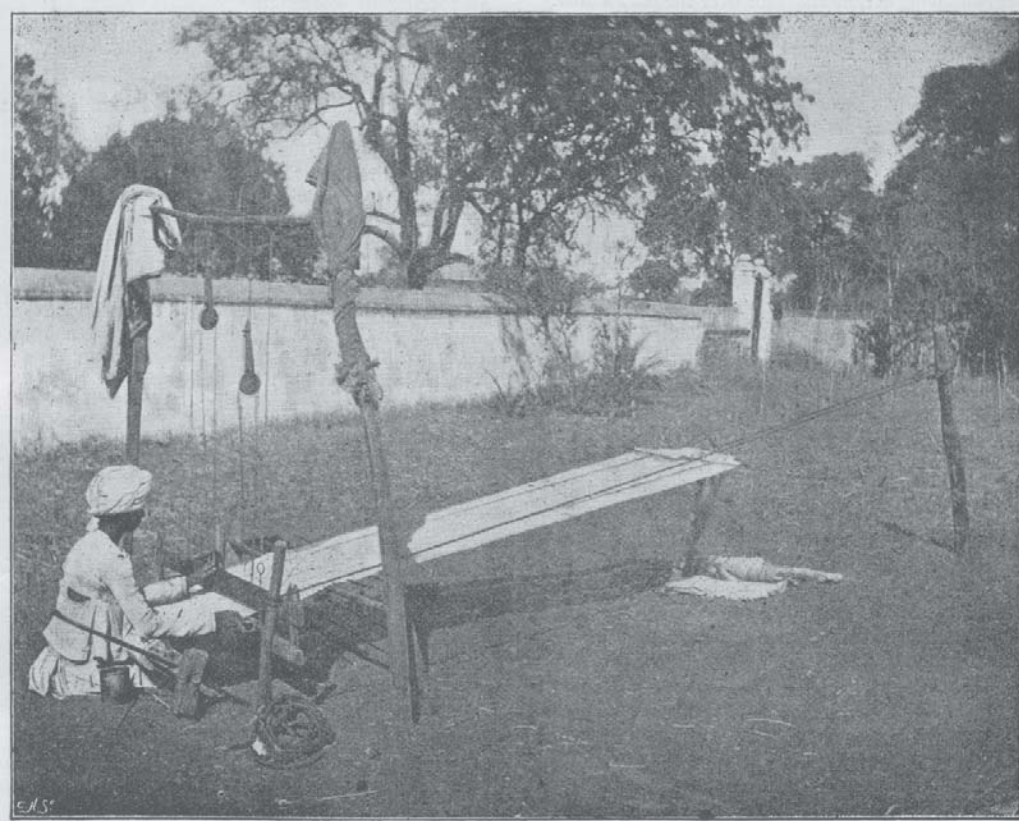


## The Indian Hand Loom.

**A**LTHOUGH opinions are divided as to how the art of weaving originated, the balance of probability lies in favour of the hypothesis that the plaiting of grass or narrow leaves into mats gave the idea of interlacing twine or yarn into a coarse cloth, and as it had not the stiffness of the leaf, it had to be held in a suitable frame which in course of time developed into the loom. An intermediate stage of weaving may be seen in the making of mats with a warp of yarn and a weft of dried grass. Mats of this kind upwards of 20 feet in width are a speciality in Cairo and the towns of upper Egypt, where the *alfa* grass grows. The warps are stretched across an earthen floor in pairs, about an inch apart, and slightly raised above the ground. The weavers sit on low stools with short legs resting on the floor and weave in the *alfa* in single or double strands with great dexterity. These mats when finished have a very pale green hue which changes to bright yellow in a few months. The grass itself has a very pleasant but faint aromatic odour. No shuttle can be used on this

in it, one end of which rests on the ground. The reed is of bamboo skin, and the healds, stiffened with some drying oil and hung on two wooden pulleys, constitute the greater part of the appliance which Mr. T. N. Mukharji described in 1886 in the following words: "The few small pieces of wood and bamboo tied together with shreds of twine and thread, which the weaver calls his loom, and which he can as easily make himself as buy from his neighbour the village carpenter, and which" the writer adds "can no more compete with the powerful machinery worked in Lancashire than can a village cart of western Bengal run a race with the Flying Scotchman."

It is remarkable that the hand-loom, instead of dying out as was expected, is actually increasing steadily in number, and the fact that a man can exist, however poorly, on the product of such a machine is a proof that with a better designed but cheap and simple hand-loom he could probably double his outturn and make at once a good living. Throwing the shuttle by hand, he can obtain at present, about 20 picks per minute, whereas when the stick with the strings and picker is used, the picks would come to about 50 per minute. The production of the Indian hand loom or *Sal* averages about nine yards per day of say 9 hours, and taking the width of the cloth at 40 inches with 20's warp and 24's weft, the weight of the



From a Photo by ]

The Indian Hand Loom Weaver.

[ Mr. Shivshunkar, Bombay.

work. The weaving of yarn into yarn demands a shuttle, and here true weaving begins.

The hand-loom is probably the most ancient of all machines, for it is coeval with the first use of textile clothing which followed that of skins. Our illustration very probably represents the type of loom that wove the white garments which so impressed Nearchus, Admiral of the Fleet of Alexander the Great, as he sailed down the Indus on his return from conquest in India. It would be difficult to remove any piece of this loom without disabling it, and equally difficult to make anything better at the price, which does not exceed Rs. 12 or 16s. for loom, reed, healds, shuttle and all combined. This type of loom is probably six thousand years old, and nothing can more clearly indicate the unprogressive nature of the people who have used it for so many centuries than its very primitive condition to-day. At any rate there are nearly seven millions of them at work in India, using Indian made yarns for the coarse counts and English imported yarns for the finer quality of cloth.

The weaver sits with his legs in a hole in the ground below the cloth beam, on which the finished cloth is rolled. This beam is carried on two stakes driven into the earth. It is wound tight and kept from revolving by means of a stick thrust through a hole

piece would be about 2 lbs. For this work the weaver gets 8 annas, and his wife and children who usually help him in his work by winding the weft pirns from the hank, would get about half as much, or 4 annas a day. The family thus earns 12 annas per day, or say 1s., which gives them a bare living considering the heavy interest they have to pay to the money lender. The merchant who buys the cloth makes, however, a good profit, and proves rather a formidable competitor to the Indian manufacturer. But the competition of the hand loom does not end here. In districts in India where fine weaving is carried on from imported yarns, a piece of cloth can be produced with profit to the merchant at about Rs. 7 as selling price. Although a similar English made piece can be had for about Rs. 3 the native prefers to buy the Indian article, as it is not weighted with size, and is superior in feel and texture to the foreign made stuff. The merchant supplies the weaver with warp and weft as also any coloured yarn required. The warp is generally 47 to 50 yards long. The new domestic foot loom described in our issue of June last, which is being introduced by Messrs. Bradbury, Brady & Co., of Bombay has already excited considerable interest among native weavers, who fully realise the advantage of driving by the legs instead of the arms and of making a possible 150 picks per minute.