Another photograph shows a busy scene at the wharf side, a great ship being loaded with bales of raw cotton.

But time presses, and under Mr. Barclay's guidance we proceed to the various departments of the mills. First we see the raw cotton in bales, as packed in the cotton fields. After a preliminary cleaning this is drawn away by fans to the bleaching kiers, and the dust which has been extracted from it to the cyclones outside the building. Many operations are gone through before the raw cotton is bleached. It is boiled in caustic soda at a 60 lb. pressure to remove the All this is explained amid the noise of machinery so loud that only by standing close to our guide, who is shouting in our ears, can we hear what he is telling us.

In the drying and combing process the cotton is automatically fed into a large chamber with iron walls, where it is conducted over 900 feet of perforated iron plates through a powerful draught of hot air.

Next there is the opening and "scutching" of the cotton, processes by which the fibres are loosened, the dirt shaken out, and the cotton is finished in rolled up sheets ready for carding.



WEIGHING THE RAW COTTON IN MEMPHIS, TENNESSEE.

fat, gummy, and resinous matters. It is then thoroughly washed to expel the dirt and soluble matter, bleached in chloride of lime to destroy the natural colouring matter of the fibre, washed again to remove soluble products, treated with acid to remove the chlorine compounds and lime left from the last process, then it is washed in soap to neutralize all traces of acid and soften the cotton, tinted with blue in cold water to correct the natural yellow cast of the cotton, and lastly the water is extracted in preparation for the drying machine.

The last mentioned is a most interesting process. The cylinders and rollers are covered with millions of fine steel points, and these separate the fibres and comb them out, remove the lumps and lay the fibres parallel in a fleece of finished absorbent cotton. Then the fleeces are rolled together to make them of the required thickness.

In another mill we saw the winding of the yarn, and the weaving of bandages, gauze, and domette by combining the warp and weft threads, thus forming the mesh of the cloth. The weft usually crosses the warp about 180 times a minute.



