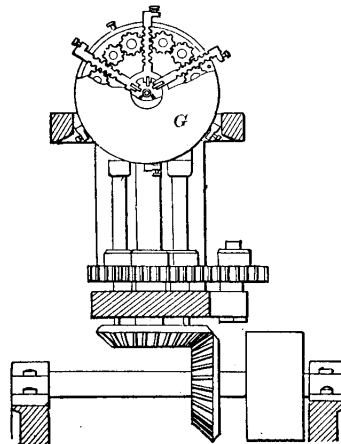


Rat-tan'-ma-chin'er-y. The rattan used in this country is imported from Singapore, packed in bundles in lengths of 8 to 16 feet. It is sorted, preliminary to being prepared for its various uses, into 12 sizes, according to diameter, and washed in revolving boxes. The joints being scraped smooth by machinery, the hard outer surface is removed in strips, which are used for the bottoms of cane-seat chairs and similar latticed work, and the rounded pith portion, known as *reed*, is woven into baskets, tables, and chairs. The shavings are made into matting, the *rub* into mattresses.

After washing and scraping, the rattans are presented to the action of machines comprising a set of drawing or feeding rollers, and knives which make longitudinal incisions in the hard outer coating, dividing it into strips which are then separated from the inner porous or pithy portion by means of a tubular cutter, through which this part is drawn while the strips are thrown off by the conical exterior of the mouth of the cutter. Another machine then reduces the strips to an even thickness and width.

Fig. 4182.



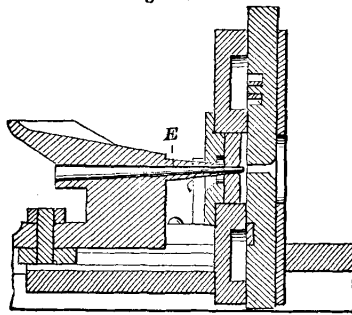
Rattan Splitting and Stripping Machine.

In the preparation of rattan for use, it gives occasion for the use of machines for straightening, washing, scraping the joints, slitting, stripping, dressing, or reducing, which is a planing and trimming operation, and polishing.

In one combined slitting and stripping machine a series of rotary cutters are pivoted in the end of rack-bars placed radially in the stock *G* and caused to simultaneously approach or recede from its center, so as to operate on the rattans as they are drawn through it by the feed-wheels. They are held to their work by springs, and accommodate themselves to the varying thickness of the rattan, which is then fed to a tubular cutter. Fig. 4182.

In Fig. 4183, the rattan, after being operated on

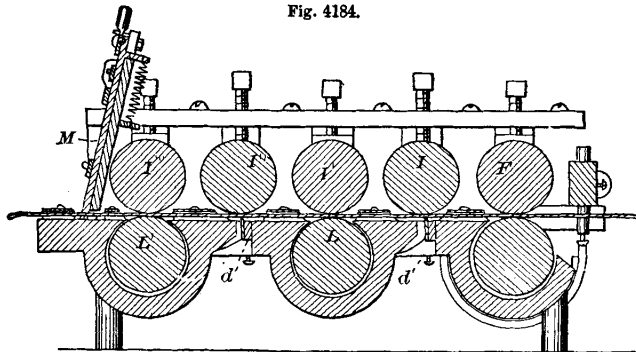
Fig. 4183.



by radial cutters, is presented to the tube or quill *E*, which may be adjusted at a variable distance from the cutters.

Machines for shaving off the joints and evening the strips are also used. In Fig. 4184, the first of these objects is effected by inclined knives *M*, and as the strip is drawn forward by the rolls *I'' I'' I'' I'' I'' I''*, the pithy under-surface is removed by knives

Fig. 4184.



or scrapers *d d*, after which circular cutting-flanges on the roller *F* and its fellow trim the edges to an even width.

Sawyer employs a tubular cutter, having an opening of hexagonal or other polygonal section, surrounded by radial ribs or fins, by which the outer coat is split, and at the same time separated from the interior, which is drawn through the tube.

Advantages are claimed for the hexagonally sectional form of the pith as peculiarly adapting it for its destined purposes.

Watkins has patented a method of uniting the

ends of the separated strips by scarfing, removing the smooth, glossy part from the ends of strips, and joining them by cement, so that they may be formed into continuous lengths.

Also a process of saturating the pith when cut into strips, with a solution of shellac or other preparation, in order to harden it and render it adapted to purposes for which the outer surface only is usually employed.

After being split off, the exterior rind is bleached, constituting chair *cane*, and put up in bundles of 1,000 feet. One hundred of these bundles make a bale.