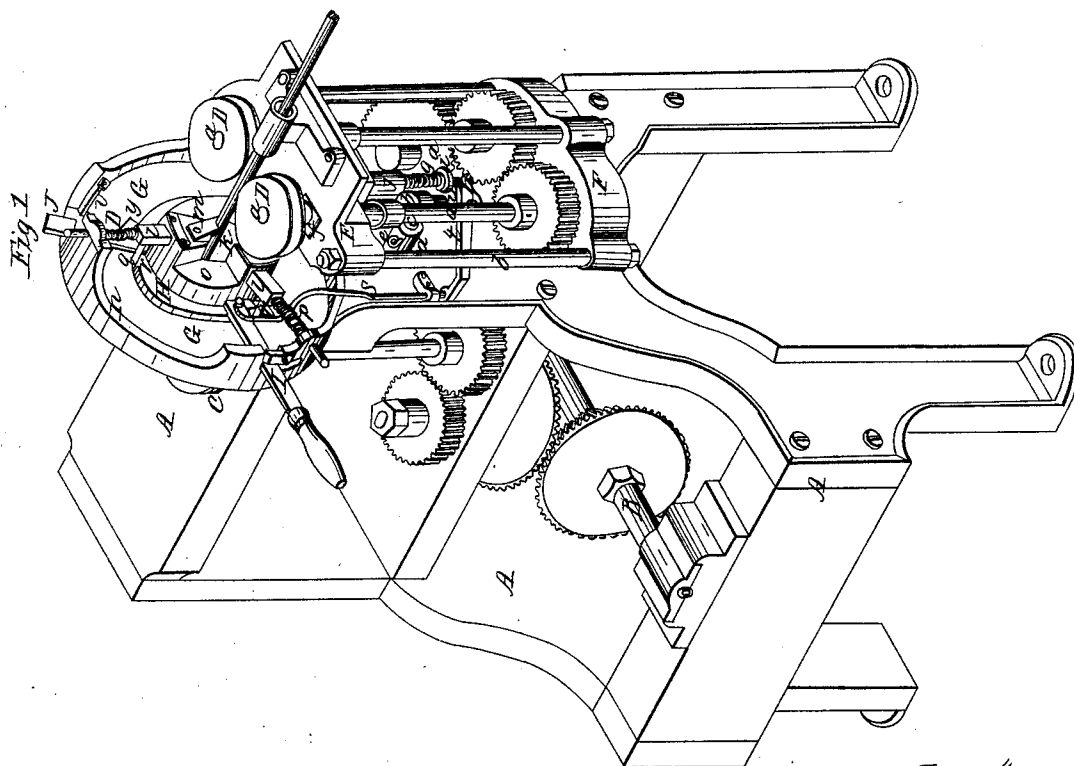
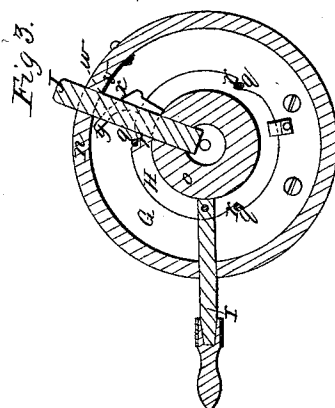
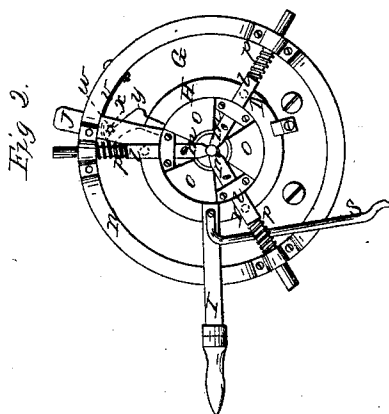


N. H. Richardson,

Working Rattan.

N^o 69,539.

Patented Oct. 8, 1867.



Witnesses:

*N. H. Richardson
& Co. Boston*

Inventor:

*Nathan H. Richardson
By his attorneys
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UNITED STATES PATENT OFFICE.

NATHAN H. RICHARDSON, OF FITCHBURG, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR DRESSING RATTAN.

Specification forming part of Letters Patent No. 69,589, dated October 8, 1867.

To all whom it may concern:

Be it known that I, NATHAN H. RICHARDSON, of Fitchburg, in the county of Worcester and State of Massachusetts, have invented certain Improvements in Rattan-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of a rattan-machine having my improvements applied thereto. Fig. 2 is a front elevation of the stock or head which carries the scrapers. Fig. 3 is a vertical section through the same, showing my improved stop and the manner in which it is operated.

My invention relates to a machine for which Letters Patent were granted to me on the 25th day of June, A. D. 1861, in operating which the rattan was frequently liable to be pushed in to such a distance before the scraping-knives were allowed to come into contact with it that the first joint would not be scraped off, and when the strands split from such a piece of rattan are being shaved in the process of manufacturing cane-seating they are frequently cut through at the point where the joint was left, or else rendered so thin as to be easily broken off, the ends of the strands up to the first joint being thus rendered useless, resulting in a considerable waste of material.

My present invention has for its object to overcome this difficulty; and it consists in a stop which is so arranged and connected with the mechanism by which the scraping-knives are operated that it will prevent the first joint of the rattan from being carried past the scrapers until the latter have been released and allowed to come into contact with the rattan, thus insuring the scraping off of the first joint and entirely preventing the waste above referred to.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A is the frame-work of the machine; B, the driving-shaft, from which motion is communicated, by means of suitable gearing, to the feed-rolls C D, the latter being secured to shafts *a* that run in boxes

in an auxiliary frame consisting of upper and lower bearing-plates, E F, and vertical posts or rods *b*. This frame is hinged to the main frame A, so that the rolls D may be swung out to one side, when required, and is held immovably in place while the machine is in operation by means of a bolt, *c*, which is secured to one of the rods *b* and enters a socket, *d*, projecting from the frame A, where it is secured by a pin, *e*. The boxes *f*, in which the shafts *a* revolve, slide in elongated openings in the plate E, and are drawn together, so as to cause the rolls D to grasp the rattan by a spiral spring, *g*, which encircles the rod *h*, the lower end of the spring resting upon a nut, *i*, and the upper end upon a guide, *j*, attached to the plate E through which the rod *h* passes. The rod which is thus pressed constantly down by the spring is connected at its upper end by means of jointed links (not shown) with the boxes *f* of the shaft *a*. The rolls D are thus drawn toward each other by the spring *g*, and when forced apart by the rattan they are caused by the connections described to move an equal amount on each side of the axis of the stock or head G, which is secured to the frame-work A, and is provided with an opening, *k*, at its center for the passage of the rattan.

l are the scraper-holders, which carry at their inner ends the scraping-knives *m* and slide freely in boxes or guides in the rim *n* and hub *o* of the stock G. These holders are arranged radially upon the stock G, and are all forced toward its center by springs *p*. Each holder has projecting from it a pin, *q*, which rests in a notch, *r*, formed in a ring, H, which surrounds the hub *o* of the stock. A handle, I, is attached to the ring H, by depressing which the inclined portions of the notches *r* are caused to act upon the pins, and all the scrapers are thus drawn back, leaving an open space between them for the entrance of a fresh rattan.

On the handle I being released, the ring H is restored to its original position by the springs *p*, which serve to again bring the scrapers into contact with the rattan. After passing the scrapers the rattan is seized by the feed-rolls C, (one only being shown) by which it is carried forward to the splitting-cutter. (Not shown.) Whenever a fresh rattan is to be introduced into the machine the rolls D should be sep-

arated from each other, as well as the scrapers *m*. This is effected in the following manner. From the handle *I* descends a rod, *s*, the lower end of which rests on the long arm of a lever, *t*, which is pivoted to a collar, *u*, secured to one of the vertical rods *b* of the auxiliary frame. The other end of the lever *t* comes immediately beneath the rod *h*, so that as the handle *I* is depressed to withdraw the scrapers *m* the rod *h* is raised, and by the connections already described the rolls *D* are separated.

I will now describe particularly the device which forms the subject of my present invention.

J is a plate or stop, which slides freely in suitable slots or openings in the rim *n* and hub *o*, and when the handle *I* is depressed to withdraw the scrapers the plate *J* is carried down, so that its lower end will project into the opening *k* in the center of the head *G* by means of a flat spring, *v*, which is secured to the rim *n* and bears upon a roll, *w*, (seen dotted,) on a pin, *x*, projecting from the plate; and thus, as the rattan is pushed forward into the machine by hand, it will strike against the stop *J*, which is so near to the scrapers *m* that it will be impossible for the first joint of the rattan to be carried past them until the handle *I* is raised to allow the scrapers *m* to come into con-

tact with the rattan, when the stop is raised against the resistance of the spring *v*, and its lower end withdrawn from the opening *k* by means of a cam or inclined projection, *y*, secured to the ring *H*, which bears against the under side of the roll *w*, the rod *s* being at the same time raised, which, as before explained, allows the rolls *D* to seize the rattan and carry it forward into the machine.

The above-described device insures every joint of the rattan being scraped off, as it is impossible for the operator, even if hurried or careless, to push the first joint past the scraping-knives until after they have been allowed to come into contact with the rattan, and consequently the whole length of the strand, after being shaved, is available, as it is not liable to be cut through or otherwise injured, and all waste is thus avoided.

What I claim as my invention, and desire to secure by Letters Patent, is—

The stop *J*, in combination with the head *G* and a series of scrapers, *m*, operating substantially as described, for the purpose set forth.

NATHAN H. RICHARDSON.

Witnesses:

J. MYRON GODDARD,

JUNIUS HAWOOD.