(No Model.)

D. F. PRATT.

GUIDE FOR RATTAN SPLITTING MACHINES.

No. 286,957. Patented Oct. 16, 1883.

Fig. 1.

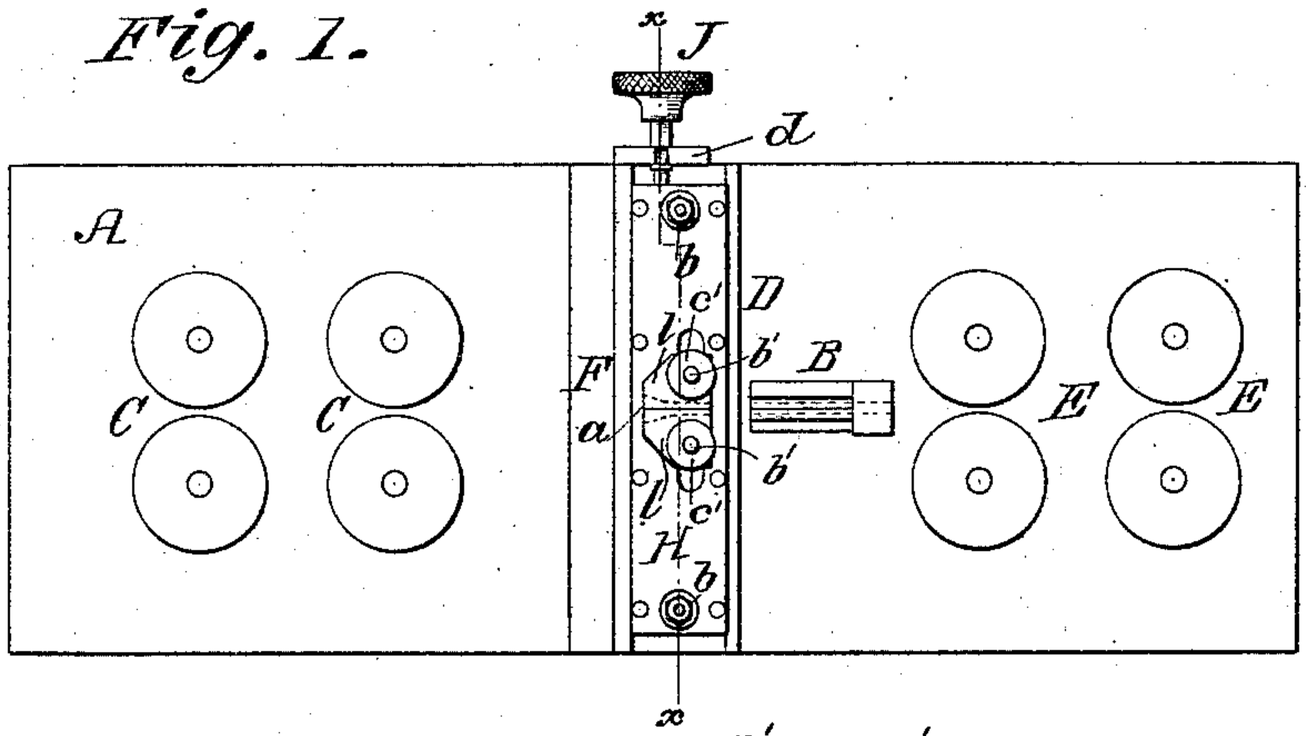


Fig. 2.

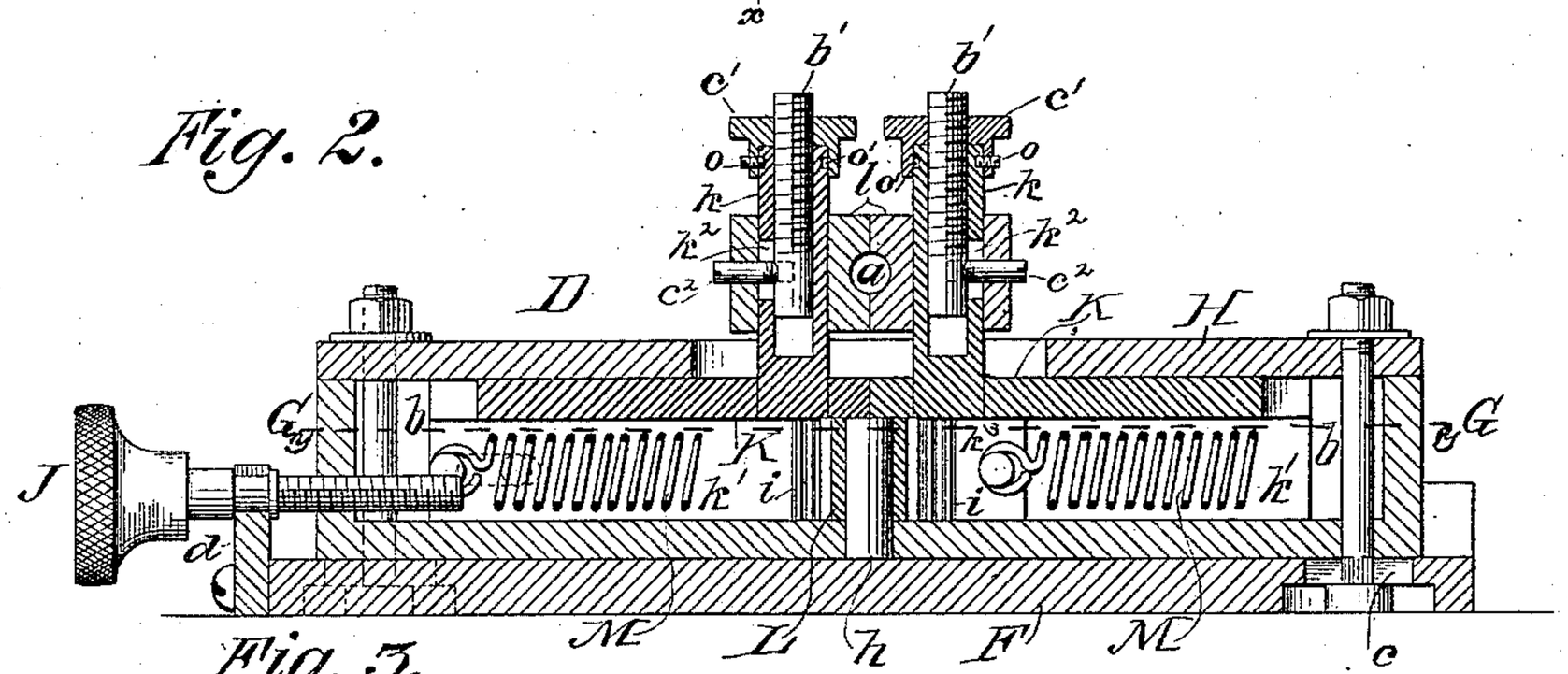


Fig. 3.

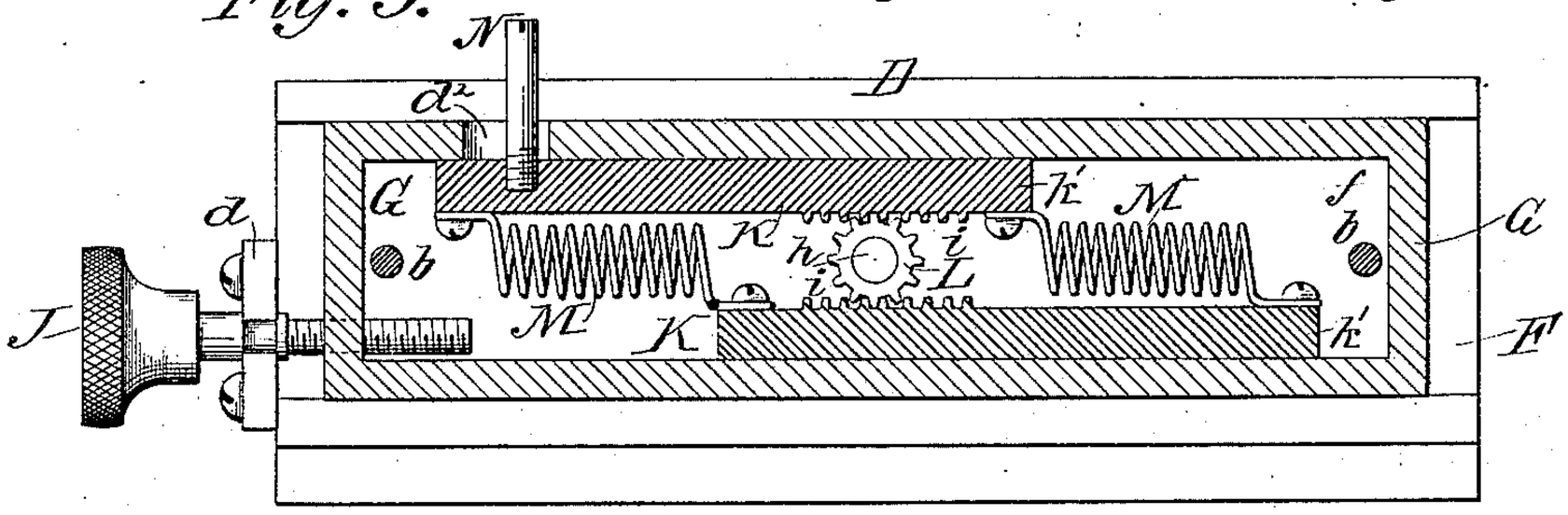


Fig. 4.

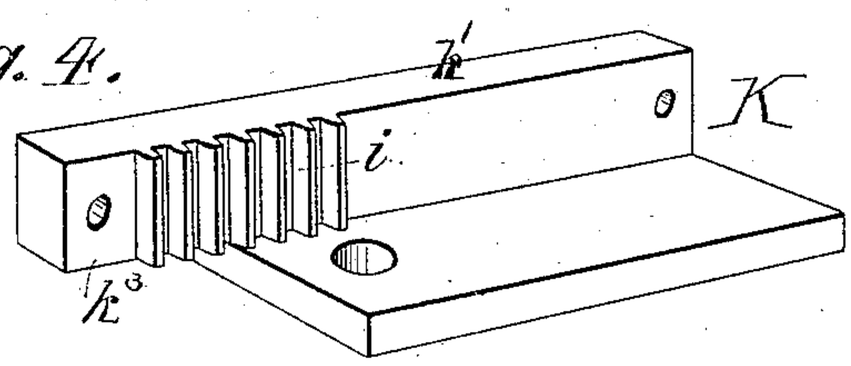
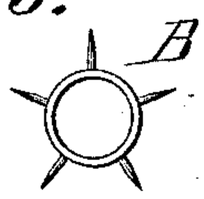


Fig. 5.



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GUIDE FOR RATTAN-SPLITTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 286,957, dated October 16, 1883.

Application filed June 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, DAVID F. PRATT, of Gardner, in the county of Worcester and State of Massachusetts, have invented a new and Improved Guide for Rattan-Splitting Machines, of which the following is a full, clear, and exact description.

This invention relates to that class of rattan-splitting machines employing a sectional guide, arranged with suitable springs in such manner that it will firmly clamp or grasp the rattan while being forced against the knife, and will always properly center the rattan with respect to the knife, whether the rattan be large or small.

The invention consists in adapting the guide to have both lateral and vertical adjustment for bringing the guide-orifice into exact alignment with the passage through the knife, and, also, of the construction, arrangement, and combination of parts, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of a rattan-splitting machine having my new and improved guide applied thereto. Fig. 2 is a longitudinal sectional elevation of the guide, taken on the line *x x* of Fig. 1. Fig. 3 is a sectional plan view of the guide, taken on the line *y y* of Fig. 2. Fig. 4 is an inverted perspective view of one of the angle-plates, and Fig. 5 is a front elevation of the splitting-knife.

A represents the table of a rattan-splitting machine, and B represents the splitting-knife, which is of ordinary form—that is, made cylindrical, and provided with radial blades, as shown in Fig. 5—and it is fitted in an adjustable block held near the center of the table A in the ordinary manner.

C C are the sets of push-rollers that force the rattan to be split through the guide D and to and through the splitting-knife B, and E E are the sets of draw-rollers which receive and draw through the knife the pith of the rattan, and these sets of rollers C E are arranged upon the table A, and are operated in the ordinary manner. The guide D is held immediately in front of the knife B upon the bed-plate F by the bolts *b b*, passing through slots *c c*, and it consists in this instance, principally, of the hollow casting G, spring-actuated angle-plates K K, placed in the hollow casting G, and formed with the upwardly-projecting slotted sleeves *k k*, the guide-blocks *l l*, that are placed upon the sleeves *k k*, the slotted cap-plate H, and the pinion L, which is placed in the hollow casting G upon the fixed stud *h*, so as to mesh with the racks *i i*, formed upon the inner surfaces of the upright portions *k' k'* of the angle-plates K K. The angle-plates K K are duplicates of each other, and, besides being formed with the sleeves *k* and racks *i*, are each extended, as shown at k^3, so that the racks *i i*, formed thereon, will face each other when the plates are in place in the casting G, and both mesh with the pinion L upon opposite sides of the pinion, as shown in Fig. 3, so that any movement of either plate will communicate, through pinion L, an equal reverse movement to the other; and the plates are held drawn toward each other lengthwise by the springs M M, which normally hold their adjacent ends in contact, or rather the adjacent faces of the guide-blocks *l l* in contact, with each other. The adjacent faces of the guide-blocks *l l* are each correspondingly recessed to form the guide-orifice *a*, in which the rattan is held, and through which it is guided to the knife B, and these blocks are adapted to be adjusted vertically upon the sleeves *k k* for bringing the orifice *a* in exact alignment with the passage through the knife by means of the screws *b' b'*, placed in the sleeves, and the adjusting-nuts *c' c'*, that fit upon the screws and bear upon the upper ends of the sleeves, the blocks being attached to the screws *b' b'* by the pins c^2 c^2, that pass through the slots k^2 k^2, made in the sleeves *k k*, and the adjusting-nuts being locked upon the upper ends of the sleeves, so that they may be revolved by the screws *o o*, the inner ends of which reach into the circumferential grooves *o' o'*, formed near the upper ends of the sleeves. The lateral adjustment of the guide-blocks *l l* with respect to the knife B is effected by means of the screw J, that has a fixed bearing in the plate *d*, and enters a screw-tap made in the hollow casting G, so that by turning the screw J to the right or left the hollow casting will be moved endwise upon the bed-plate F, (the slots *c c* permitting this movement,) carrying the blocks to the right

or left, as may be necessary for bringing the guide-orifice *a* directly in front of the passage through the knife. One of the plates K is provided with the horizontal arm N, which reaches out through the slot d^2, made in the hollow casting G, as shown in Fig. 3. The object of this arm is to enable the attendant, either by hand or by means of a lever, to open the guide-blocks *l l*, for clearing out the guide-orifice *a* in case it should become clogged.

In use, owing to the sliding movement that the guide-blocks *l l* are adapted to have and to the action of the springs M M, it will be seen that the guide-orifice *a* will accommodate itself in size to the size of the rattan being split, whether it be large or small, within certain limits, and, owing to the adaptation of the guide-blocks *l l* to have mutual reverse movements, it will be seen that the blocks will be forced by the rattans equally to and from the center of the orifice *a*, so that the center of the guide-orifice remains always the same—in line with the center of the passage through the knife—so that the guide-blocks will not only grasp the rattan and hold it from wabbling while being split, but will always properly center the rattans with respect to the knife, causing them to be properly and evenly split.

Besides these advantages, the guide-blocks are also adapted to be easily adjusted both vertically and laterally, and it is designed to have several interchangeable sets of guide-blocks, *l l*, with guide-orifices of different sizes to suit the different grades of rattans.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a guide for rattan-splitting machines, the combination, with the guide-blocks adapted to receive and guide the rattan, of the slotted sleeves having adjusting-nuts adapted to turn thereon, the screws upon which are fitted the said nuts, and which are arranged within the sleeves, said screws having projections that extend through the slots of the sleeves and connect with the guide-blocks, substantially as and for the purpose stated.

2. In a guide for rattan-splitting machines, the guide-blocks adapted to receive and guide the rattan, in combination with the slotted sleeves, the adjusting-nuts having screws, and the screws upon which are fitted the adjusting-nuts, said screws having circumferential grooves and projections extending through the slots of the sleeves and connected to the guide-blocks, substantially as and for the purpose set forth.

3. In a guide for rattan-splitting machines, the right-angled plates having racks and sleeves, carrying the guide-blocks, in combination with the pinion, the springs connecting said plates together at their ends, the hollow slotted casting, and the adjusting-screw working in said casting and bearing in a stationary support, substantially as and for the purpose set forth.

4. In a guide for rattan-splitting machines, the guide-blocks, the right-angled plates having racks and slotted sleeves, adjusting-nuts that turn upon the latter, and screws having projections extending through the slots of the sleeves and connecting with the guide-blocks, in combination with the pinion, the springs that connect the right-angled plates together at their ends, the slotted hollow casting, and the adjusting-screw working in the casting and bearing in a stationary support, substantially as and for the purpose specified.

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