

(No Model.)

2 Sheets—Sheet 1.

P. H. WAIT.

MACHINE FOR DISINTEGRATING JUTE, &c.

No. 485,246.

Patented Nov. 1, 1892.

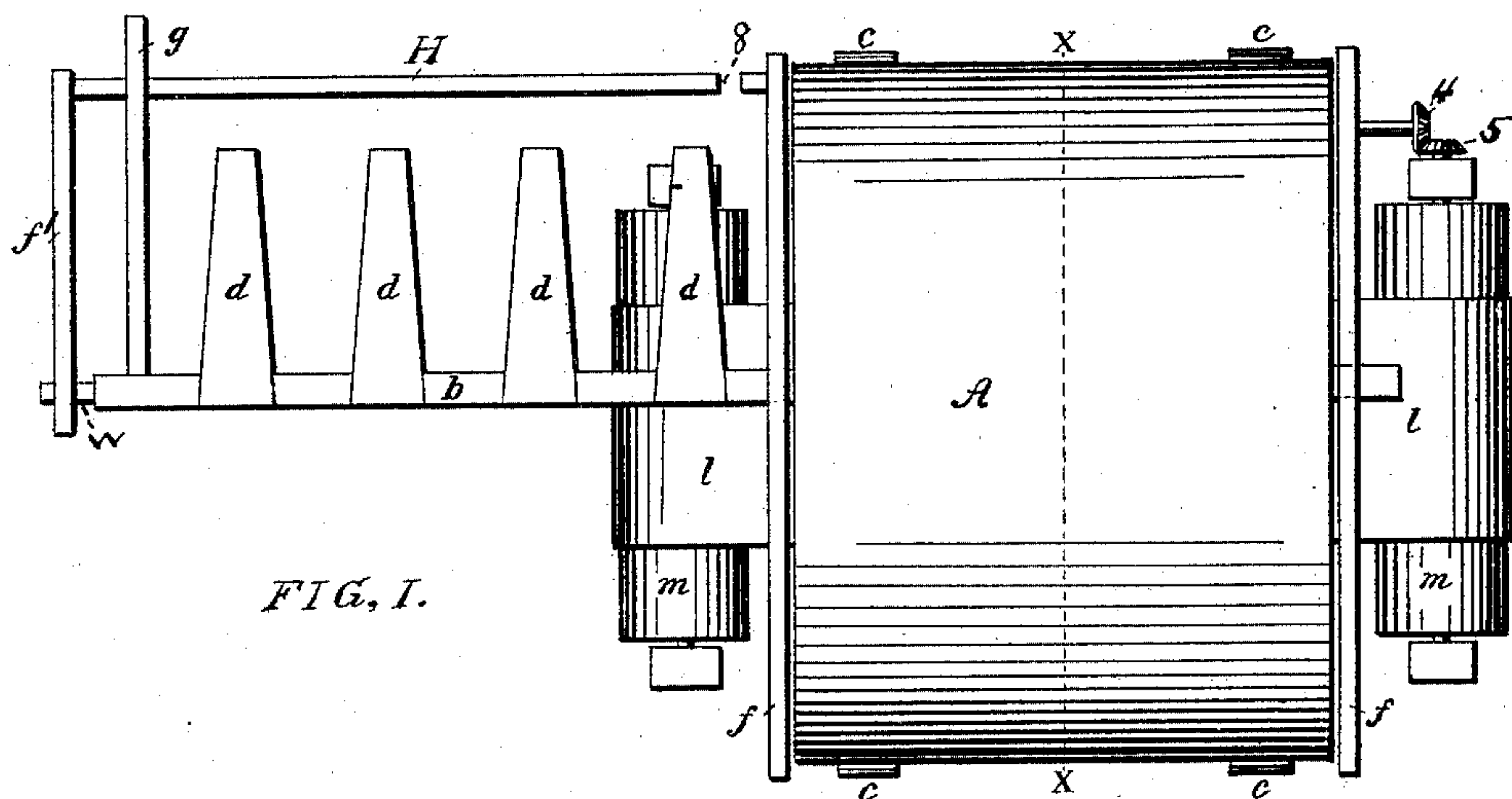


FIG. 1.

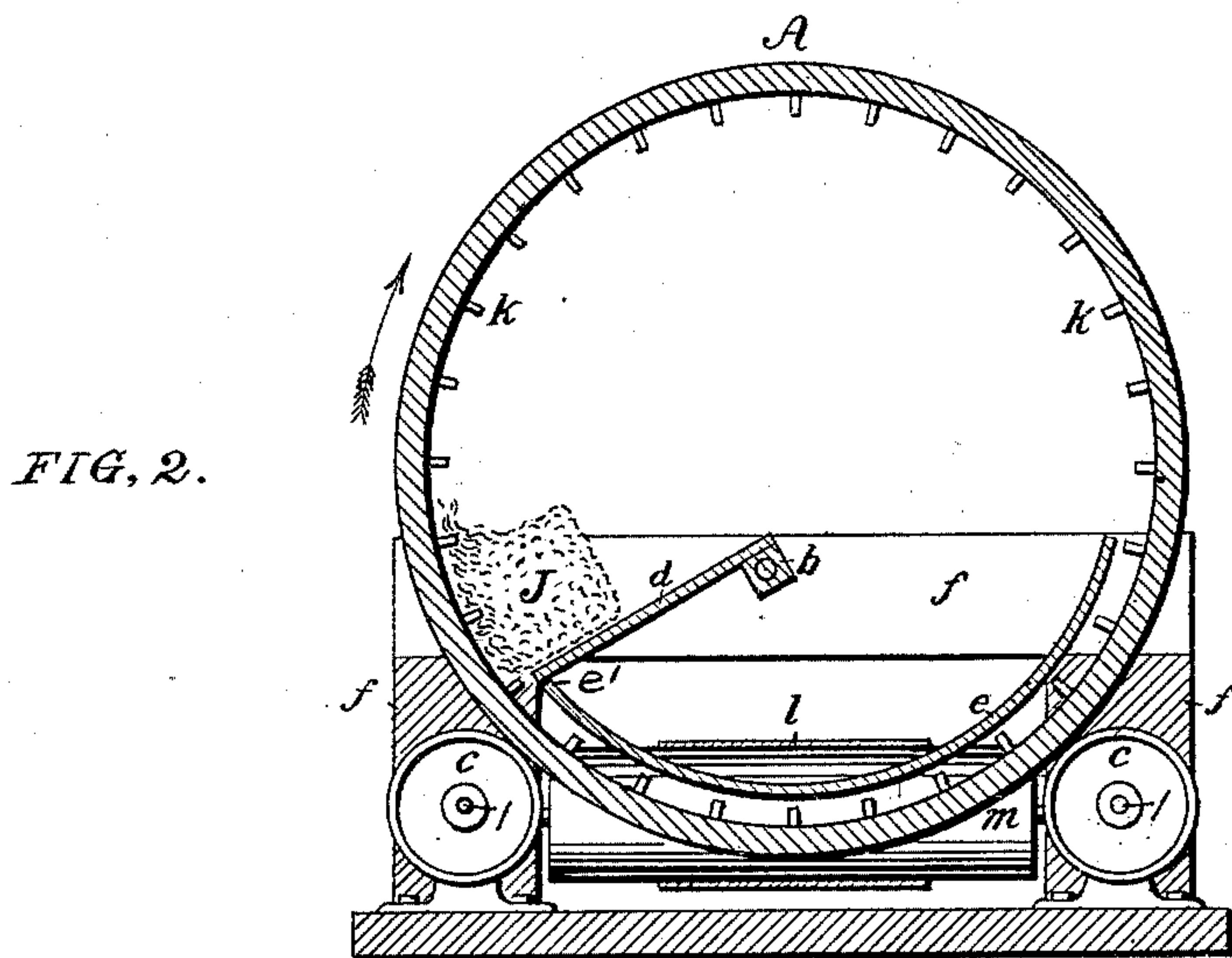


FIG. 2.

Witnesses:

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FIG. 3.

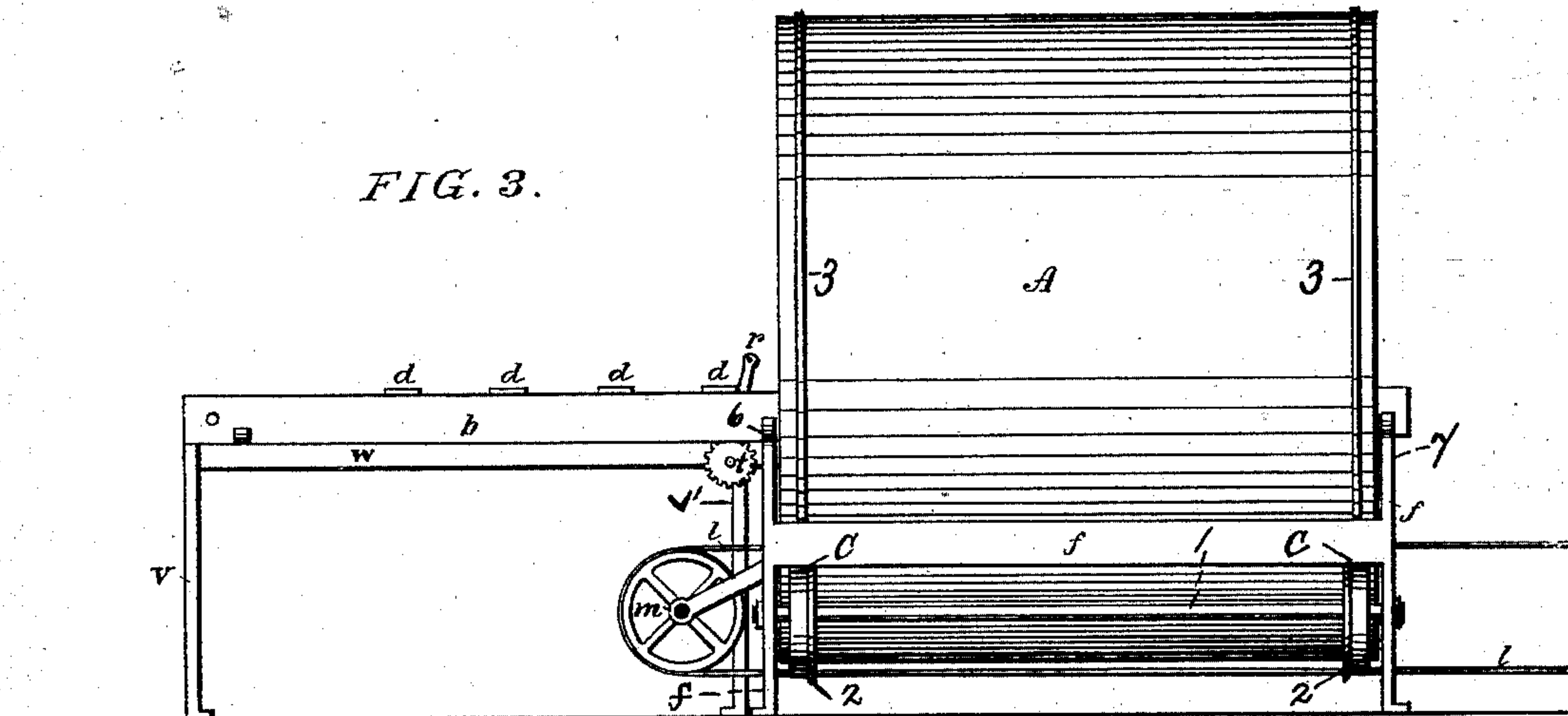


FIG. 5.

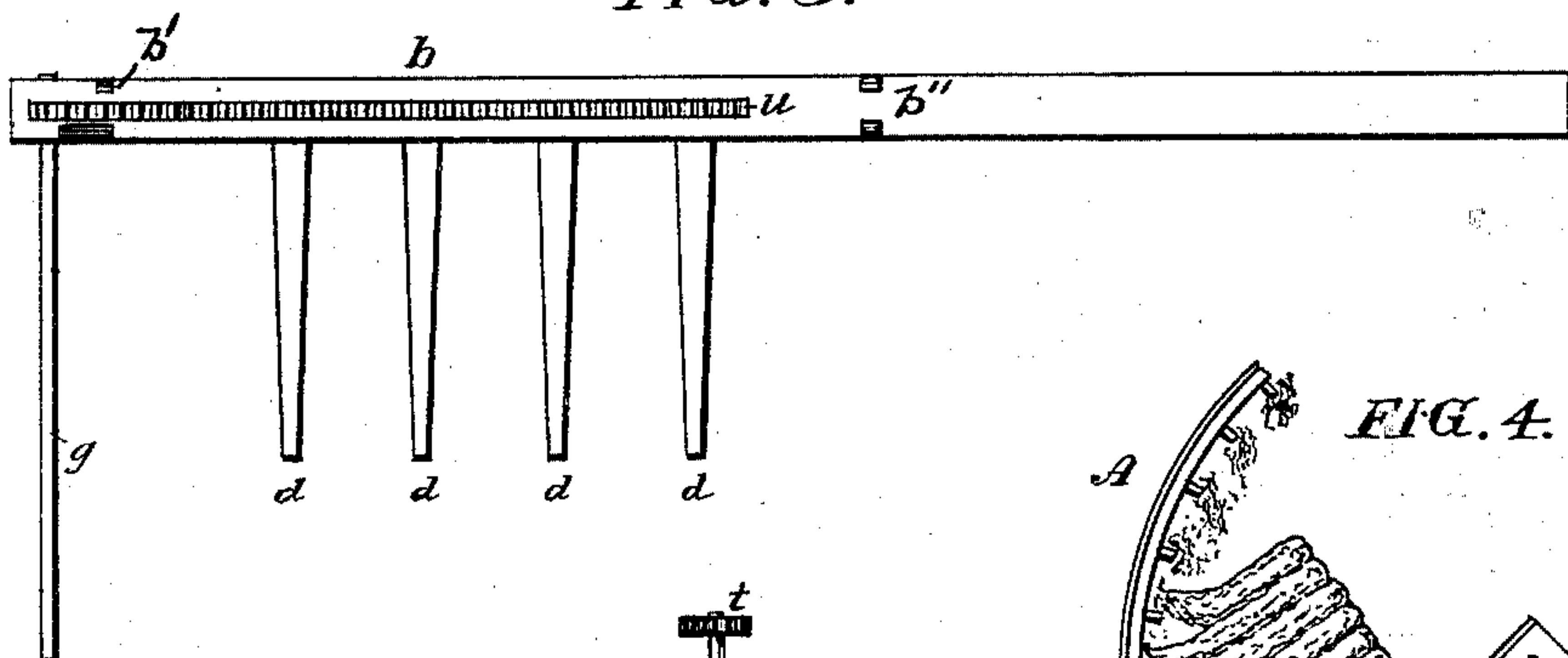


FIG. 6.

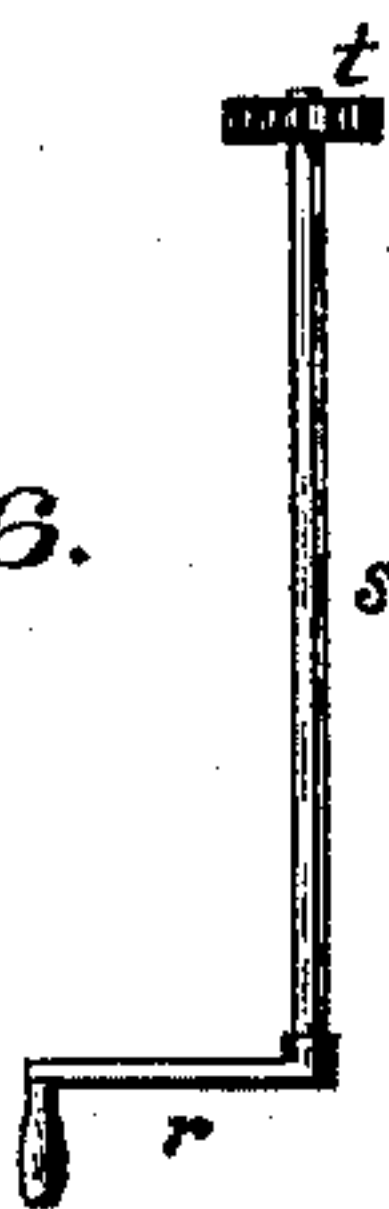
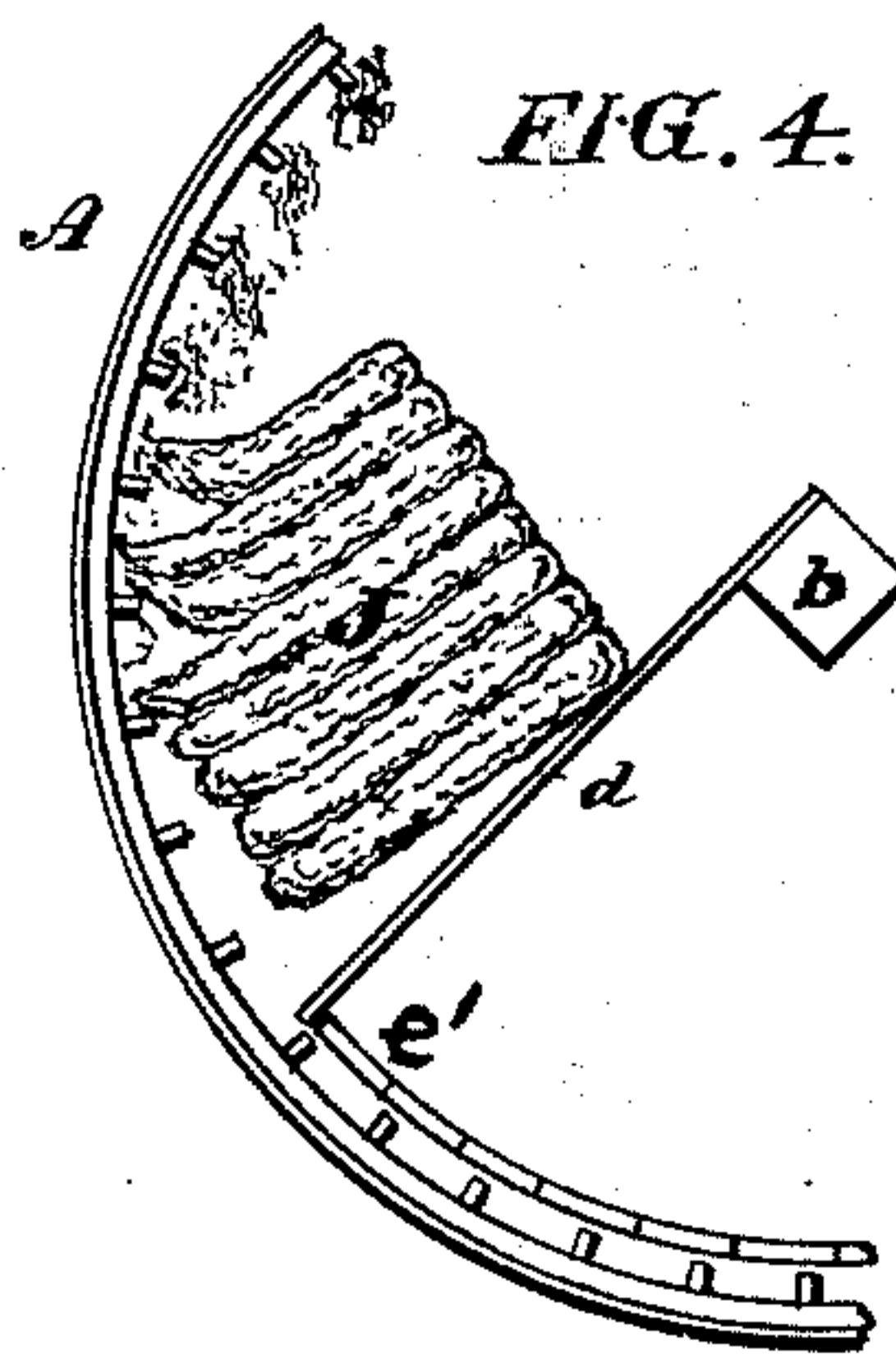


FIG. 4.



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UNITED STATES PATENT OFFICE.

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MACHINE FOR DISINTEGRATING JUTE, &c.

SPECIFICATION forming part of Letters Patent No. 485,246, dated November 1, 1892.

Application filed January 2, 1892. Serial No. 416,758. (No model.)

To all whom it may concern:

Be it known that I, PHILIP H. WAIT, a citizen of the United States of America, residing at Sandy Hill, in the county of Washington and State of New York, have invented a new and useful Machine for Disintegrating Jute, &c., of which the following is a specification.

My invention relates to improvements in machines for disintegrating baled and compressed articles, and is especially designed and adapted for separating and disintegrating baled jute and similar materials; and the object is to provide an efficient and simple machine to consummate the end.

My invention consists in the novel construction of parts and their combination, as hereinafter described, and particularly pointed out in the claims.

I attain the purposes of my invention by the means illustrated in the accompanying drawings, wherein—

Figure 1 is a plan view of the machine. Fig. 2 is a central vertical section taken on the line xx of Fig. 1. Fig. 3 is a side view in elevation. Fig. 4 is a detail view of a section of the cylinder and stationary floor, showing a bale being operated on and supported on the carrying-frame. Fig. 5 is a bottom plan view of the bale-carrying frame. Fig. 6 is a detail of the shaft with pinion and crank-handle for operating the bale-carrying frame.

f designates a frame, wherein are mounted shafts 1, carrying rollers c . On these rollers is disposed a large cylinder A , having open ends and provided with radially-directed pins or teeth k on the inner face, as shown in Fig. 2 of the drawings. The rollers c may be provided with flanges 2, which bear against annular collars or ribs 3 on the cylinder and keep it from endwise movement, as seen in Fig. 3 of the drawings. The cylinder may be rotated by a belt (not shown) connected to a suitable power. Adjacent to the ends of the cylinder are arranged rollers m , about which is a belt l , which carries the disintegrated material from the cylinder. To rotate the rollers m , the shaft of one of the rollers c is extended and has mounted thereon a bevel gear-wheel 4, meshing with a counterpart gear 5 on the journal of one of the rollers m , as seen in Fig. 1 of the drawings.

In the cylinder is a floor e , having its ends

secured to and supported by the frame f . This floor protects the belt or apron l from contact with the pins of the cylinder should the line of the belt passing through the cylinder be borne down by the weight of material thrown on it. The end e' of the floor serves as a stop or rest for the arms of the bale-carrier, as seen in Figs. 2 and 4 of the drawings. The frame f is extended vertically, as seen at 6 7, Fig. 3, to constitute supports for the rail of the bale-carrier. Another supporting-frame for this bale-carrier is erected to support the carrier when drawn from the cylinder. This frame consists of the standards $v v'$, end rail f' , and side rails H and w . The bale-carrier consists of a rail b , having a number of arms d extending at right angles therefrom, and an arm or lever g , resting on the rail H . The rail b rests on the rail w and is guided thereon by means of lugs $b' b^2$. The rail H stops short of the cylinder, leaving an opening 8, through which the arm g drops when it reaches the opening, and the bale-carrier is thus tilted and carried into position to throw the bale against the pins of the cylinder, as seen in Fig. 2 of the drawings. Across the frame is journaled a shaft s , having a handle r to turn it, and on the end of the shaft is a pinion, which engages in a rack u , secured to the under side of the rail b . It will be perceived that by turning the pinion, engaged with the rack the bale-carrier, may be run to and from or into and out of the cylinder.

The operation is as follows: Motion being imparted to the cylinder A in the direction of the arrow, the bale of material may be placed on the bale-carrier and the carrier then run into the cylinder until the arm g reaches the end of or opening in the rail H , when the carrier is automatically tilted, throwing or moving the bale against the pins of the cylinder, which take hold of the fibers, tearing them apart and causing the bale to turn over and over, rapidly presenting new surfaces or portions to the action of the pins and speedily and fully disintegrating the whole, when it is thrown over upon the endless belt in the cylinder and carried out of the machine. When this is accomplished, the bale-carrier is run out of the machine, again supplied with material, and the operation repeated.

Having thus described my invention, what

I claim, and desire to secure by Letters Patent, is—

1. In a disintegrating-machine, the combination of the rotative cylinder provided with
5 interior pins and sliding and tilting bale-carriers arranged to reciprocate into and out of the cylinder, substantially as described.

2. In a disintegrating-machine, the combination of the rotative cylinder provided with
10 interior pins, a stationary floor in the cylinder, and a sliding and tilting bale-carrier adapted when in the cylinder to engage with its free side the edge of the floor and rest thereon, substantially as described.

15 3. The combination of the rotative cylinder

provided with interior pins, a stationary floor in the lower part of the cylinder, and a carrying-belt arranged with its upper line over the floor, substantially as described.

4. The combination of the open-end rota- 20
tive cylinder, the stationary floor in the cylinder, the carrying-belt passing over the floor, and the sliding and tilting bale-carrier arranged to reciprocate into and out of the cylinder, substantially as described, and for the 25
purposes specified.

PHILIP H. WAIT.

Witnesses:

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