

F. S. Robinson. Cotton Picker.

N: 36,625.

Patented Oct. 7, 1862.

Fig. 1.

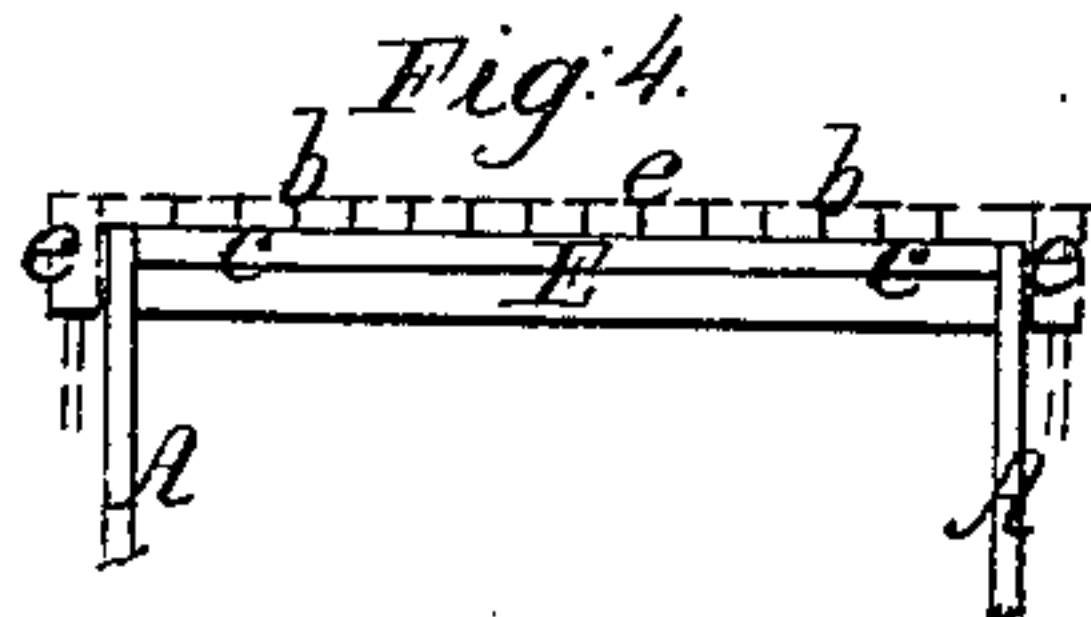
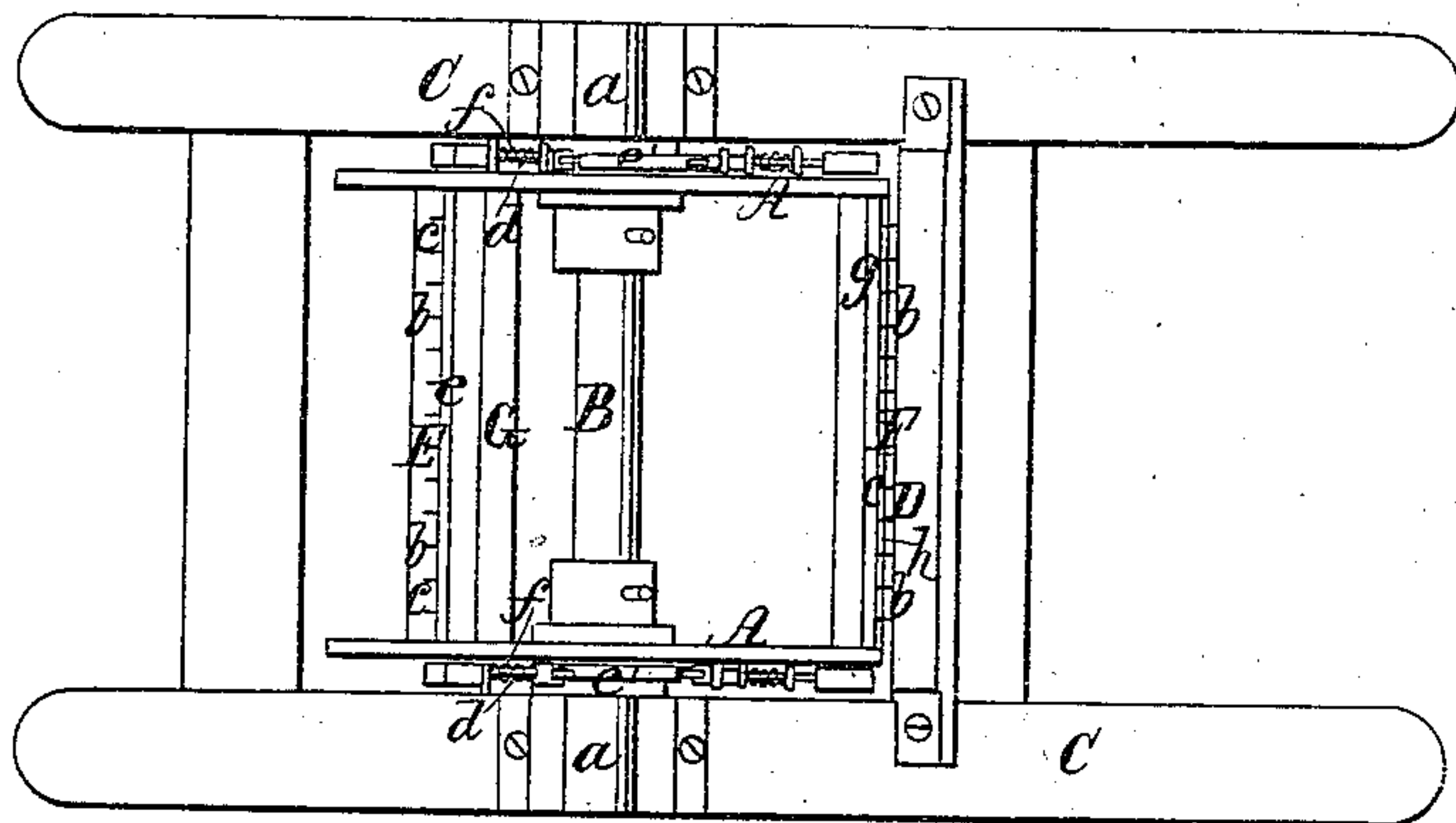


Fig. 2.

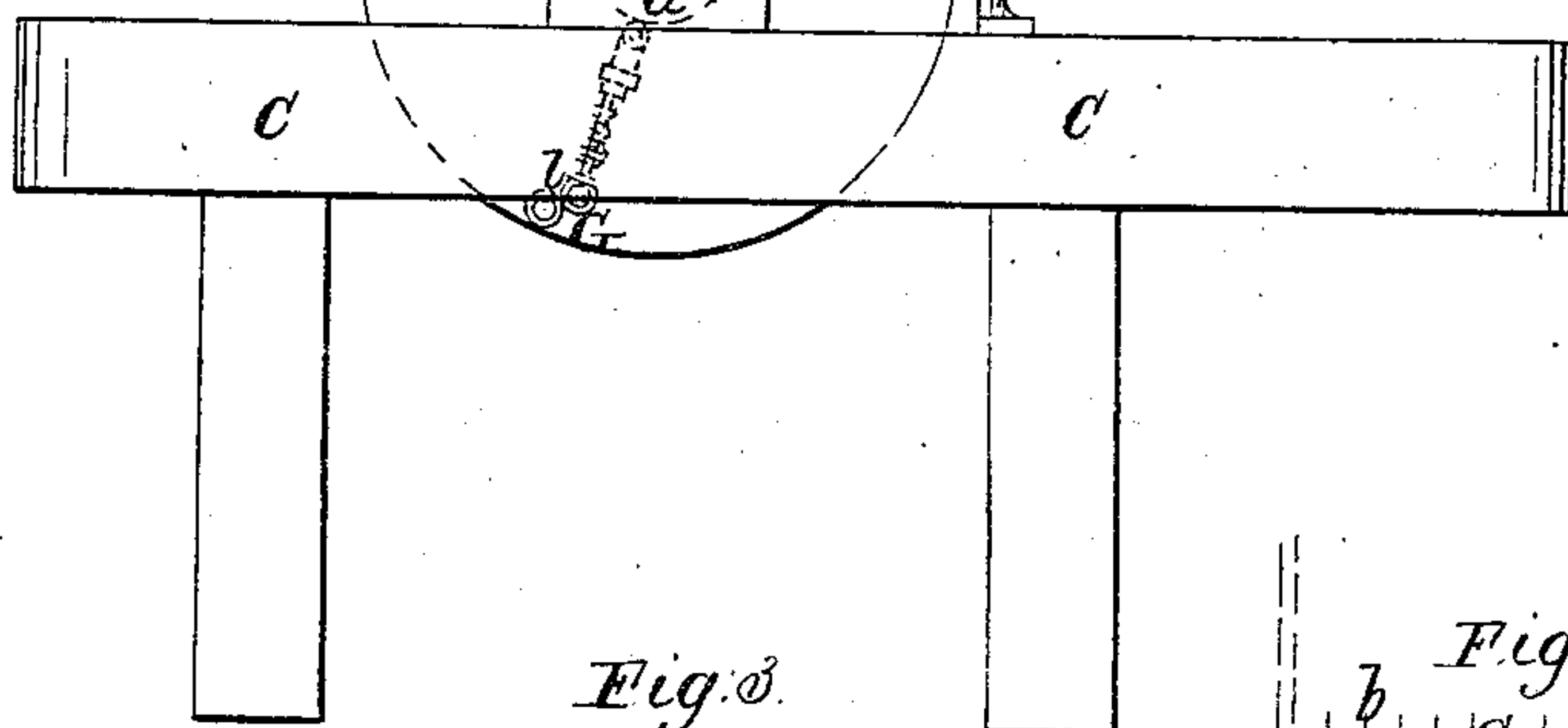
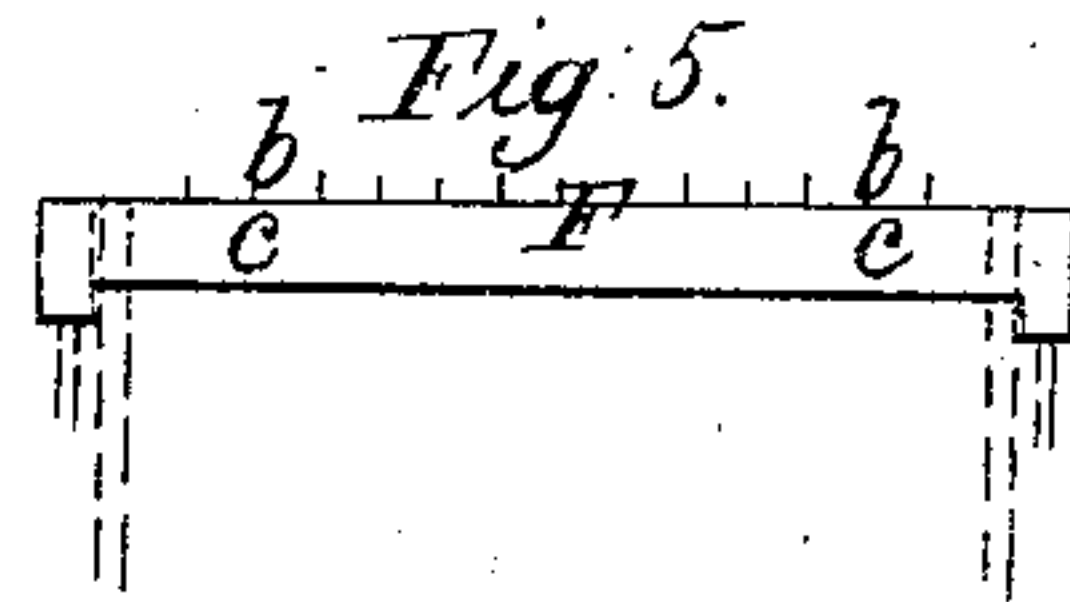
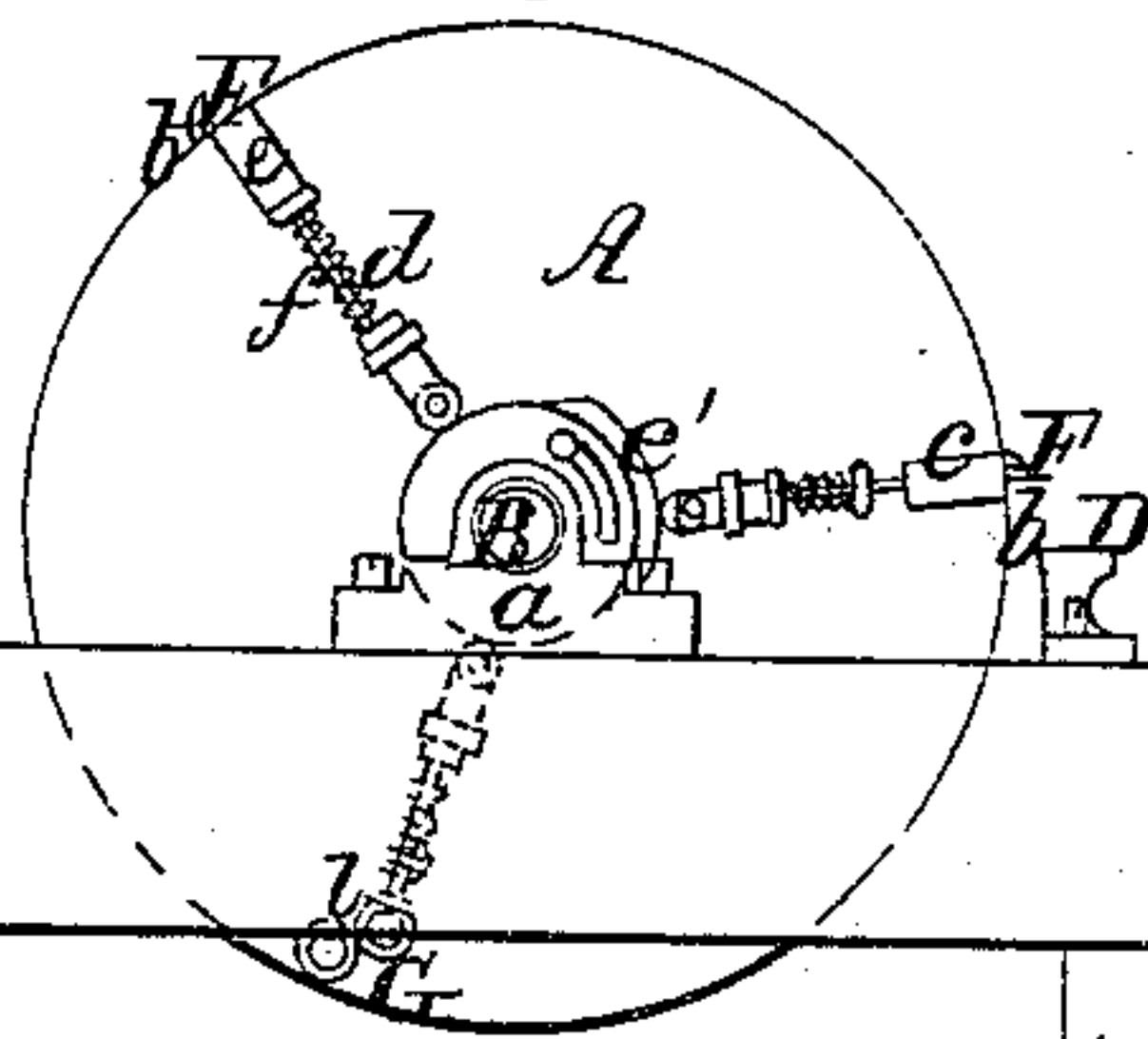


Fig. 3.

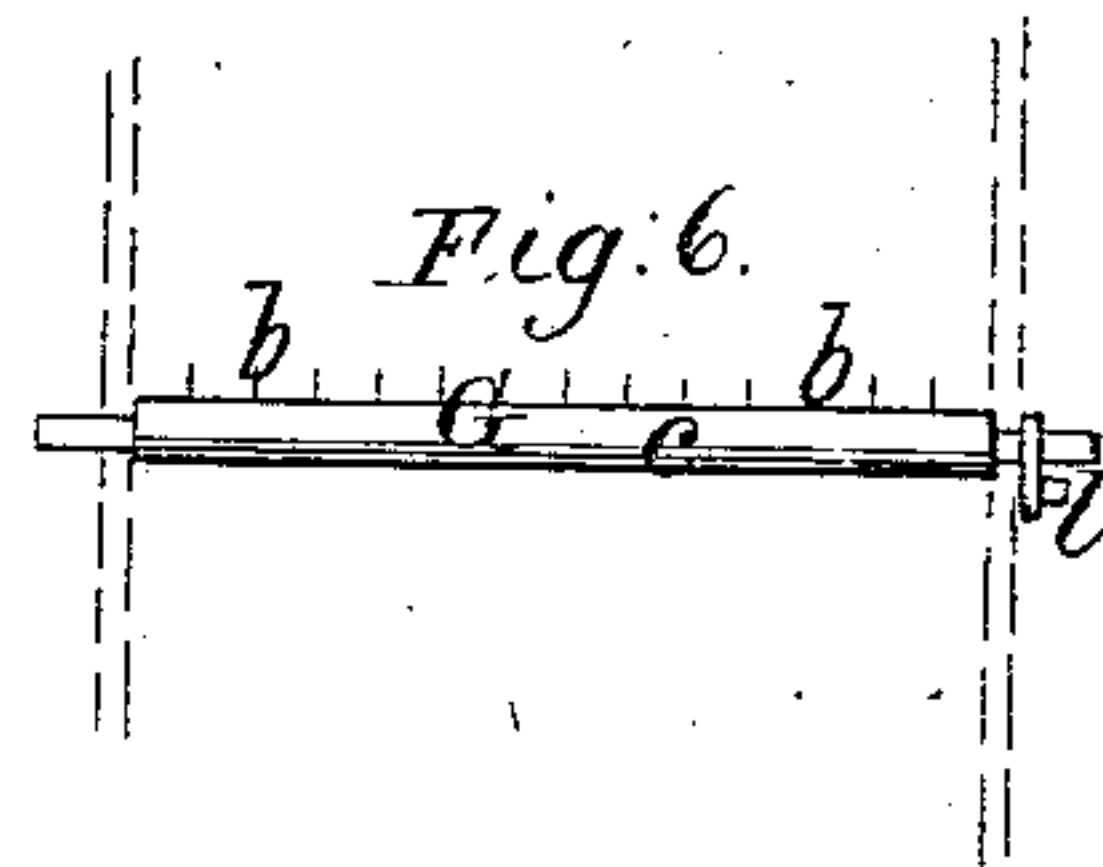
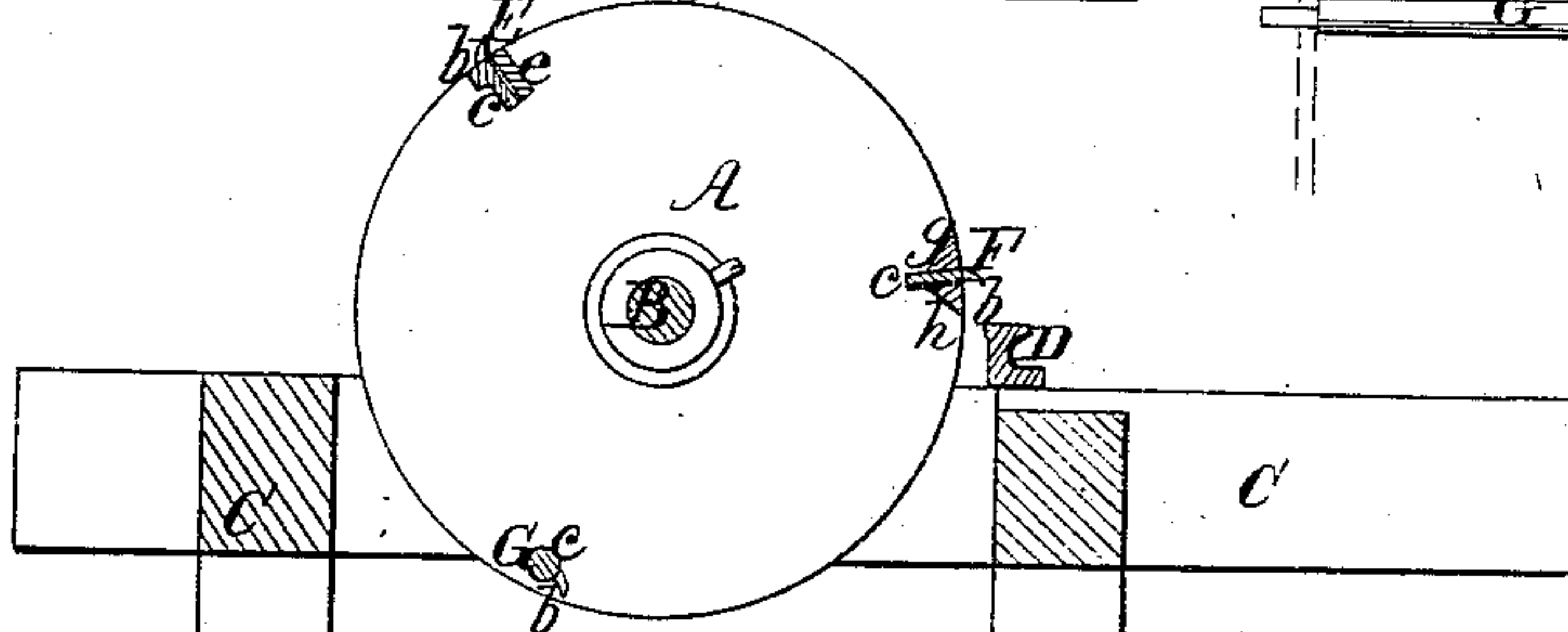


Fig. 6.

Witnesses;
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UNITED STATES PATENT OFFICE.

FAYETTE S. ROBINSON, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR SEPARATING COTTON-WASTE.

Specification forming part of Letters Patent No. 36,625, dated October 7, 1862.

To all whom it may concern:

Be it known that I, FAYETTE S. ROBINSON, a citizen of the United States of America, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Machine for Drawing or Separating Cotton-Waste or other Fibrous Matters; and I do hereby declare the same to be fully described in the following specification and illustrated by the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a side elevation, and Fig. 3 a longitudinal section, of my said machine.

The cotton-waste for which my machine is designed consists of cotton thread wound in the form of a cap or otherwise matted together.

In carrying out my invention I employ a feeding bar or rest, D, one or more ranges of teeth combined with two heads or circular disks or the equivalents, fixed on a shaft, and having a mechanism with each range of teeth and its carrier, which shall so operate as to discharge the waste from the teeth or cause them to release their hold of it after they may have drawn it any determinate distance from a feeding-bar, or the device on which the waste is presented to the action of the teeth.

In the drawings, A A represent two circular disks affixed to a shaft, B, which is supported in boxes *a a*, resting on a frame, C, the parts A A and B constituting a rotary carrier or frame for the toothed bars, to be hereinafter described. Extending across the upper part of the said frame and alongside the edges of the said disks, is what I term the "feeding-bar," D, it being a rail whose upper surface may be supposed to be close to the bite of two feed-rollers, by which the cotton-waste is to be fed into the machine, in order that it may be seized and acted on by the ranges of teeth carried by the disks. The ranges of teeth are exhibited at E, F, and G, and more particularly in side views in Figs. 4, 5, and 6, each range being composed of a series of hooked teeth, *b b b*, projecting at equal distances asunder from a bar, *c*. The first of the said ranges, or that marked E, is represented as having its bar affixed at its ends to the two disks, so that the range of teeth may be stationary in position relatively to the dies. There is, however, alongside of the bar another bar, *e*, so adapted to the two disks as to be capable of being

moved in radial directions—that is, toward and from the axis of the shaft B. This bar projects beyond the outer face of each disk, and has an arm, *d*, extending down toward the periphery of a stationary cam, *e'*, which is fastened to one of the boxes in which the shaft B is sustained. The said arm at its front carries a friction-roller to rest against the edge of the cam. Furthermore, a spring, *f*, encompasses the arm, and is so applied to it and the disk as to force the bar *e* toward the shaft B. The cam should be properly formed, and so arranged as to cause the bar *e* to be advanced or pressed outward from the roots to the points of the teeth after the teeth may have seized upon the cotton-waste and have drawn it out sufficiently, the advance of the bar on the teeth causing them to release their hold of the waste.

The range of teeth F is represented as affixed to a movable bar, placed between two bars, *g h*, affixed to the two disks, and so as to be stationary relatively to them and the movable bar. In this case the bar carrying the teeth is supported against the cams by arms provided with springs, the whole being so constructed and arranged as not only to cause the range of teeth, while passing the feeding-bar D, to extend beyond the bars *g h*, but to subsequently draw the teeth-bar inward, so as to produce the release of the hold of the teeth on the waste which may have been caught and drawn out by them.

The range of teeth G is represented as projecting from a shaft from whose ends cranks *l l* project, and are jointed to arms provided with springs and resting against the cams, the whole being so that a partial rotation of the shaft may be produced after the teeth may have seized and properly drawn the waste, the said partial rotation of the shaft being made to take place in a manner to cause the teeth to release their hold of the waste.

I have thus represented three different modes of operating a range of teeth.

The drawings above referred to exhibit the cams as adjusted to accomplish the proper movements of the teeth F. To effect those of each of the other ranges of teeth, the cams should be turned and set in somewhat different positions, as will be readily understood by machine-makers.

By the operation of my said machine its several ranges of teeth are to be revolved with

the shaft B, in which case the cotton-waste as it is fed forward with a constant or with an intermittent motion, will be seized and drawn out, so as to have its threads or coils separated more or less, the teeth in action letting go of the waste as soon as they may have drawn it sufficiently, the object being to render the waste serviceable as a means of wiping or cleaning machinery, large quantities of such waste being employed for such and various other purposes.

I do not claim several series of hooked teeth combined with a rotary frame and machinery for moving each of them toward and away from the axis of such carrier, such being found in the burring-machine of Theodore Ely, (patented September 14, 1843,) and made to operate in connection with a rotary toothed cylinder provided with a feeding-apron. I employ no such toothed cylinder, as such would not an-

swer for supporting the cotton-waste, as it is required to be sustained in order to be drawn out while held by feeding-rollers, it being necessary for such purpose to have a bar or its equivalent.

Therefore I claim--

The combination of the supporting-bar D, one or more series, E F G, of teeth, (applied to a rotary carrier, as specified,) and mechanism by which each range of teeth shall be caused, during the revolution of the carrier, to seize the waste as it may project from the bar D, and draw it out therefrom and separate it more or less, and subsequently let go of it, in manner substantially as hereinbefore explained.

FAYETTE S. ROBINSON.

Witnesses:

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