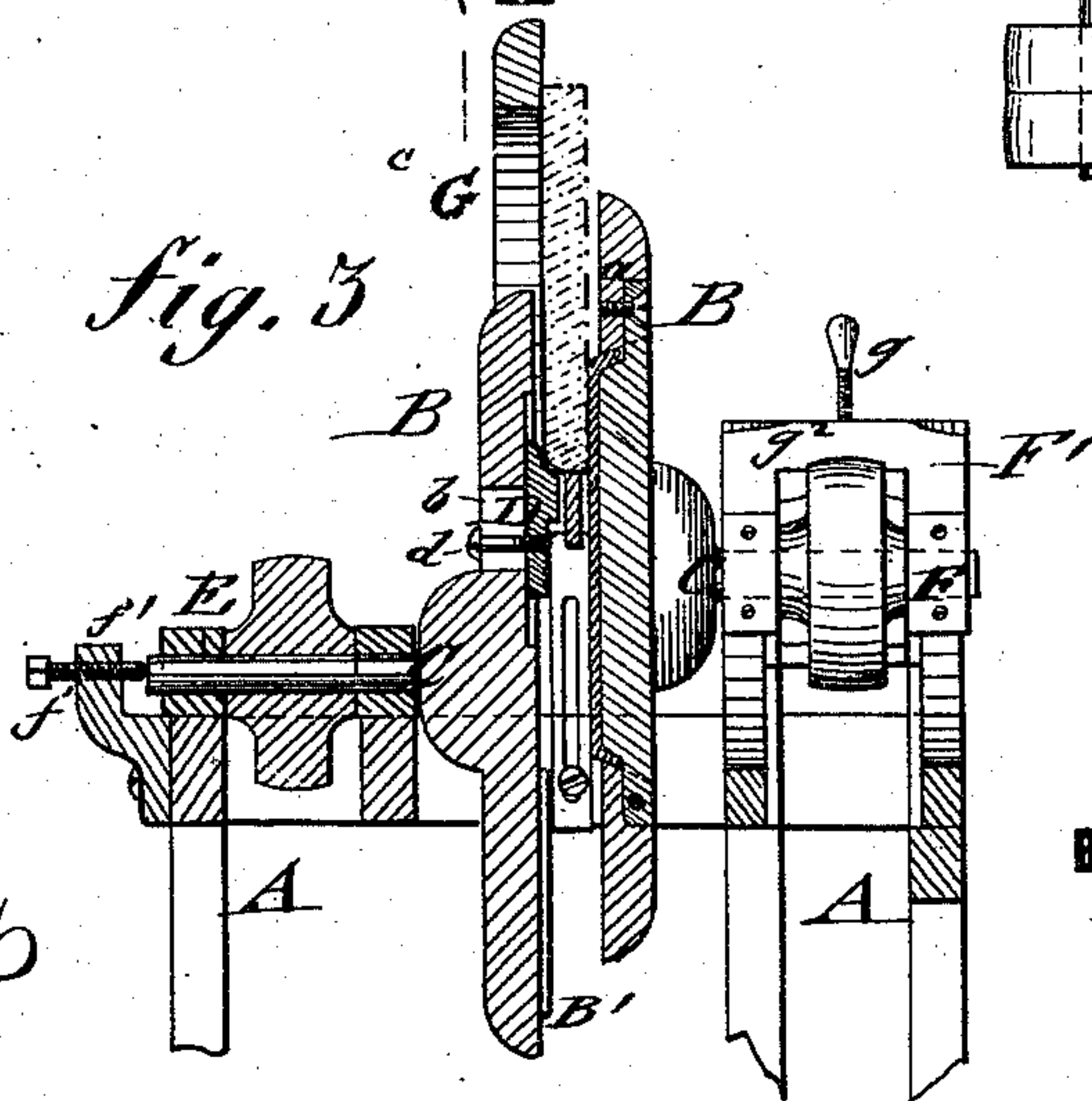
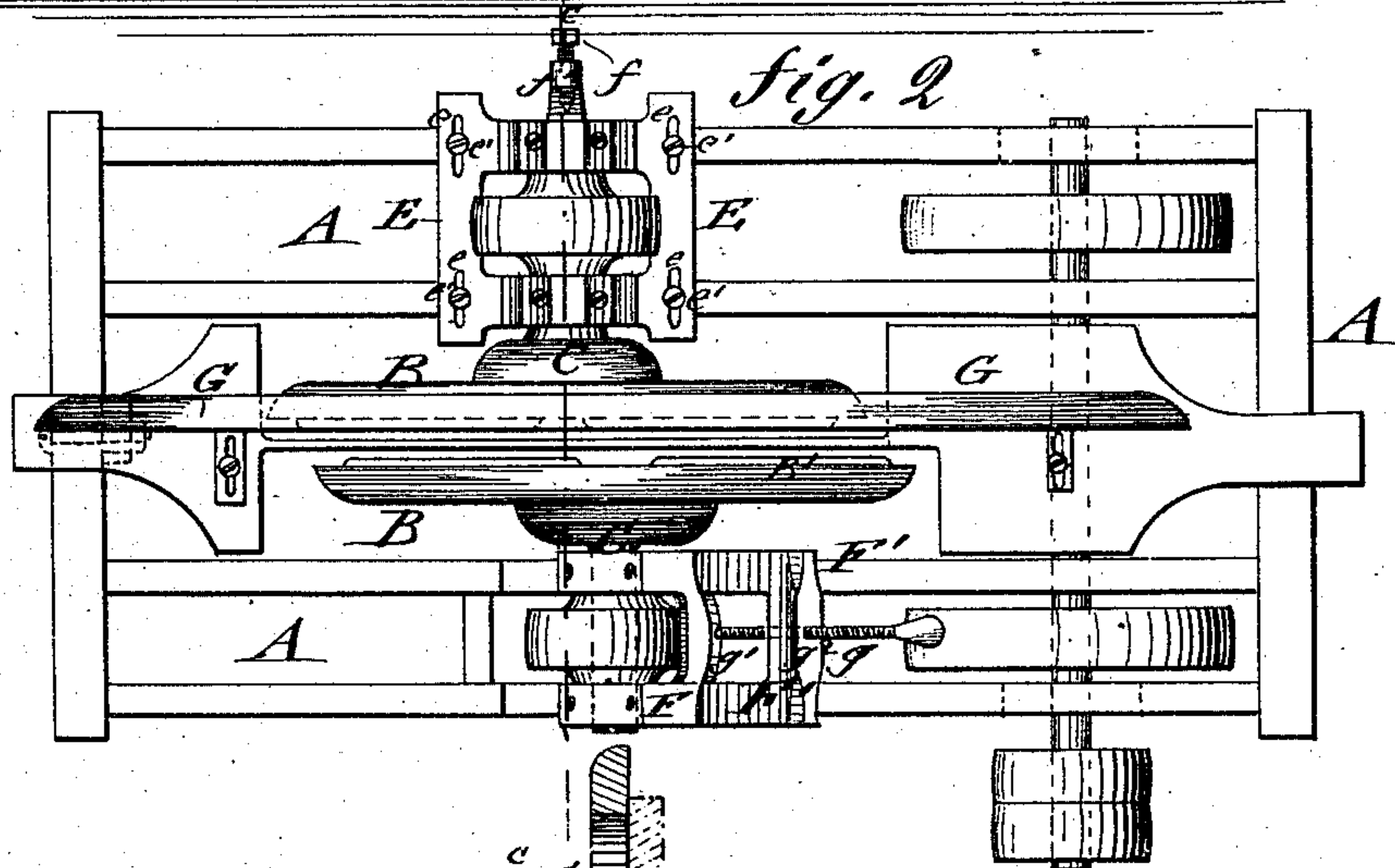
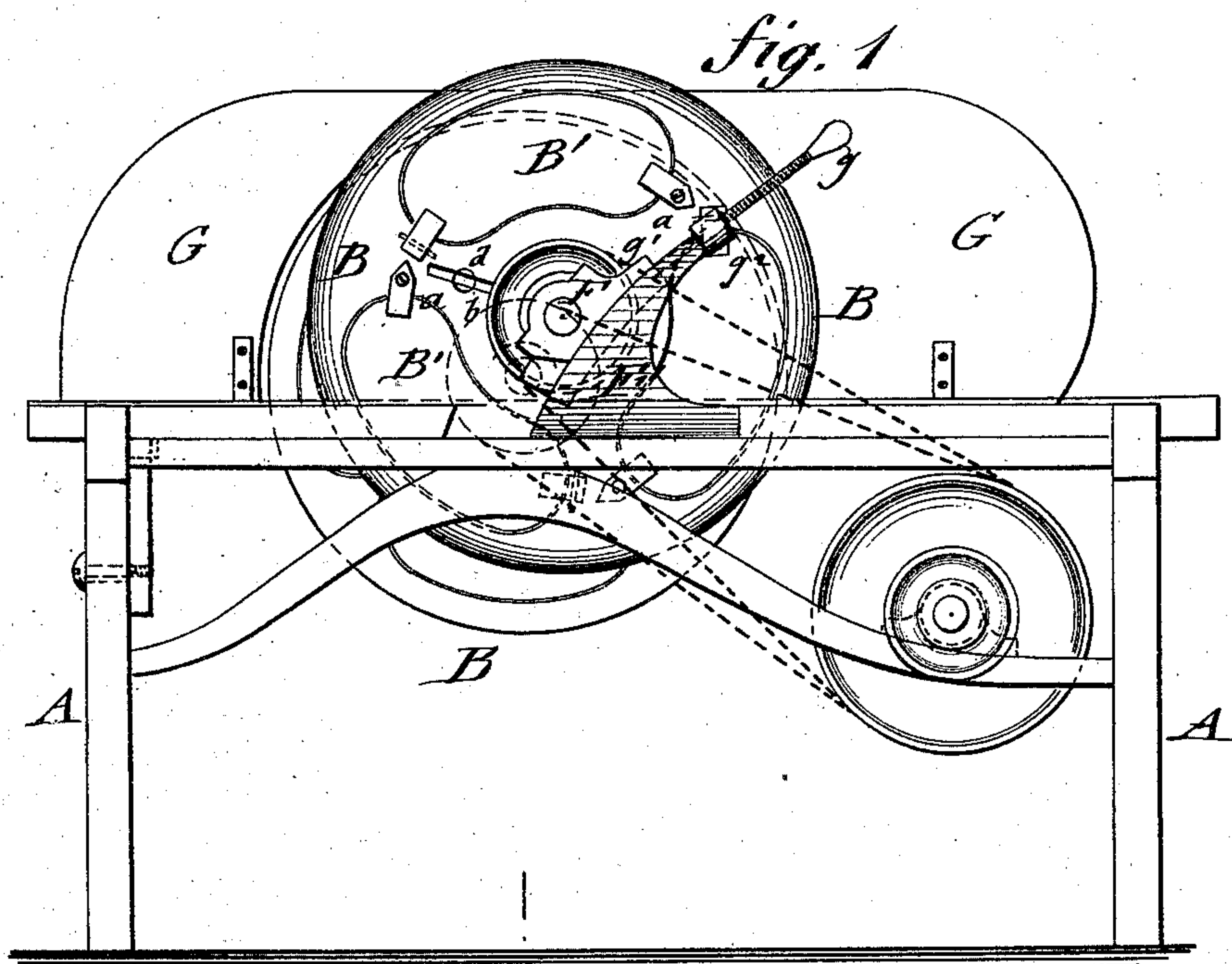


J. P. BECK & J. H. WEAVER.

Machines for Smoothing and Cornering Panels.

No. 156,474.

Patented Nov. 3, 1874.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JACOB P. BECK AND JOHN H. WEAVER, OF LOCK HAVEN, PA., ASSIGNORS
OF ONE-THIRD THEIR RIGHT TO A. N. RAUB, OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR SMOOTHING AND CORNERING PANELS.

Specification forming part of Letters Patent No. 156,474, dated November 3, 1874; application filed
August 22, 1874.

To all whom it may concern:

Be it known that we, JACOB P. BECK and JOHN H. WEAVER, of Lock Haven, Clinton county, Pennsylvania, have invented a new and Improved Machine for Smoothing and Cornering Panels, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a side elevation of our improved machine for smoothing and cornering panels; Fig. 2, a top view; and Fig. 3, a vertical transverse section of the same on the line *c c*, Fig. 2.

Similar letters of reference indicate corresponding parts.

The object of our invention is to construct an improved machine for smoothing and cornering panels, so that the sandpapering of the raised part at one side thereof may be obtained, at the same time with the broad level portion at the other side, by mechanical means in place of the hand-work hitherto employed for this purpose.

Our invention consists of vertically-rotating heads or disks, with detachably-inserted pads, covered with sand-paper for smoothing both sides of the panel, and of adjustable detachable bits for cornering the same. The revolving heads work on separate mandrels, one being laterally adjustable to the thickness of the panel; the other being capable of vertical adjustment on an arc-shaped guide-support.

In the drawing, A represents a supporting-frame of our improved panel smoothing and cornering machine; B, the revolving disks or heads, which are made of suitable metal, applied to separate mandrels C, and rotated, by belts and pulleys from the driving-shaft, independently of each other. Pads B', of suitable shape, are set into corresponding recesses of the heads B, the sand-paper being stretched over the same, and firmly fastened by securing the pads, which are hinged to the heads at one end, and secured, by screws *a*, at the opposite end.

Detachablc cutter-bits D are set into the heads in an adjustable manner by means of slots *b* and fastening-screws *d*, and serve for cornering or grooving the panels. The bits D are removed whenever it is desired to smooth the broad flat portion of the panel. One head

B is made laterally adjustable on frame A by means of its mandrel-supporting bearing E, which is provided with lateral slots *e*, for the fastening-screws *e'*, Fig. 2, so that the whole bearing E may be changed to the thickness of the panel by the set-screw *f* turning in a guide, *f'*, of frame A. The opposite head B is made adjustable, in vertical direction, by placing its mandrel-bearing F on an arc-shaped guide-support, F', on which the bearing F slides to any required height, by the action of the screw-bolt *g*, applied to the lateral piece *g'* of the bearing F, and turning in the perforated lateral top piece *g''* of support F'. The head B is thereby raised in the same plane, for the purpose of smoothing, by its wider reach, panels with larger surface at one side than at the other, for accomplishing the smoothing of unequal sides at the same time. The cutter-bit has to be detached when such panels are passed through the heads. The guard-plate G for guiding the panels on their passage between the heads, is also laterally and vertically adjustable, by means of slides and set-screws, so as to accommodate itself readily to the thickness of the panel and also to the raised head. The panels are thereby smoothed with greater facility and rapidity, at both sides, whether the surfaces of the same are of equal or unequal size.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. In panel smoothing and cornering machines, the combination of two vertical revolving disks or heads, being placed on separate mandrels, one being adjustable in lateral, the other in vertical, direction, for smoothing, at the same time, panel sides of differently-sized surfaces, substantially as specified.

2. The revolving head B, having hinged sand-paper fastening-pads B', secured by set-screws *a*, as set forth.

JACOB P. BECK.

JOHN H. WEAVER.

Witnesses:

JAMES W. CLARK,
G. W. BATCHELER.