

(No Model.)

2 Sheets—Sheet 1.

Z. BUTLER.

STONE WORKING MACHINE.

No. 288,544.

Patented Nov. 13, 1883.

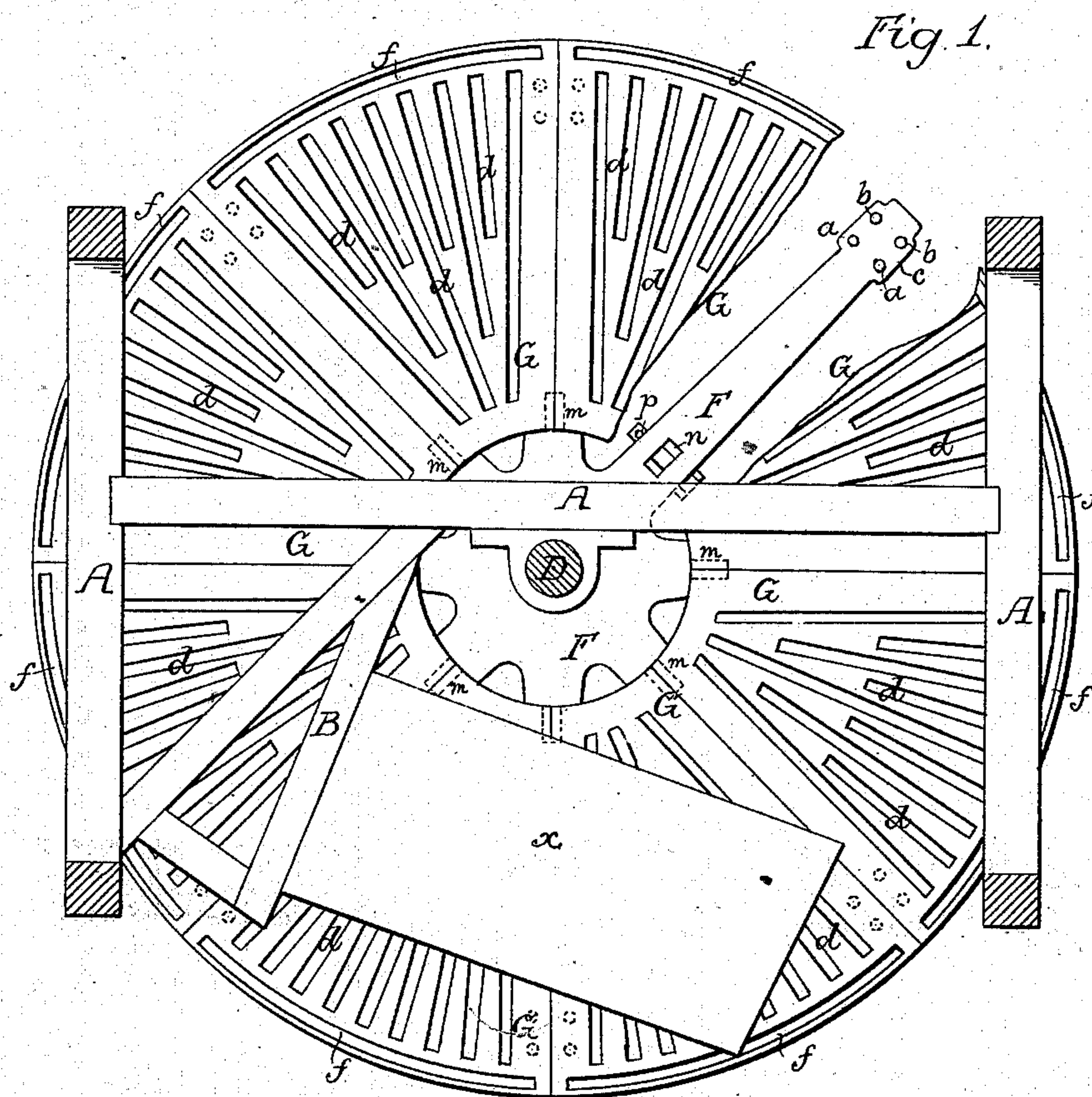
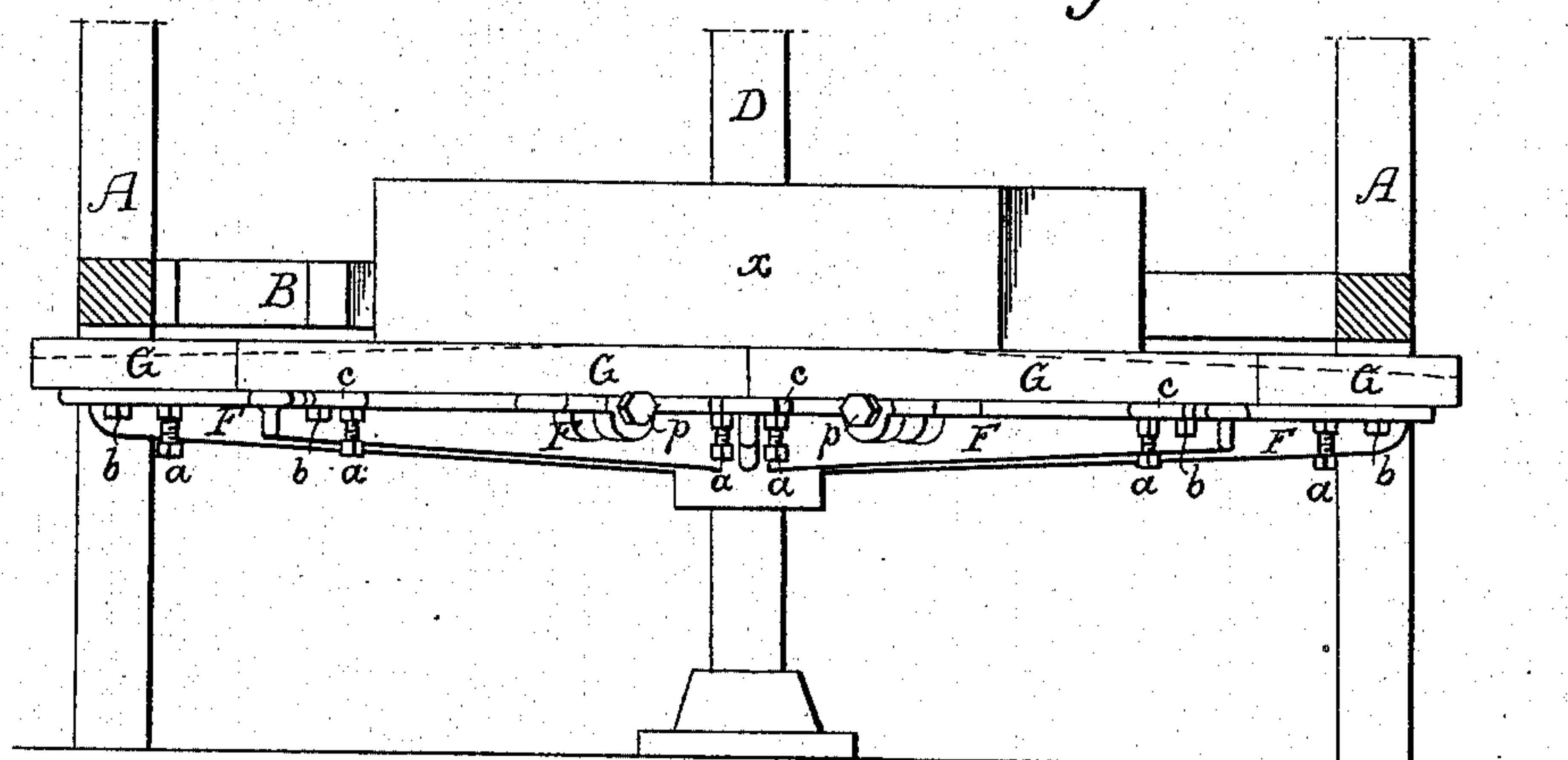


Fig. 2.



Witnesses:
David S Williams
J^r Harry L. Ashenfelter.

Inventor:
Zebulon Butler
by his Attorney
Howson & Sons

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Fig. 3.

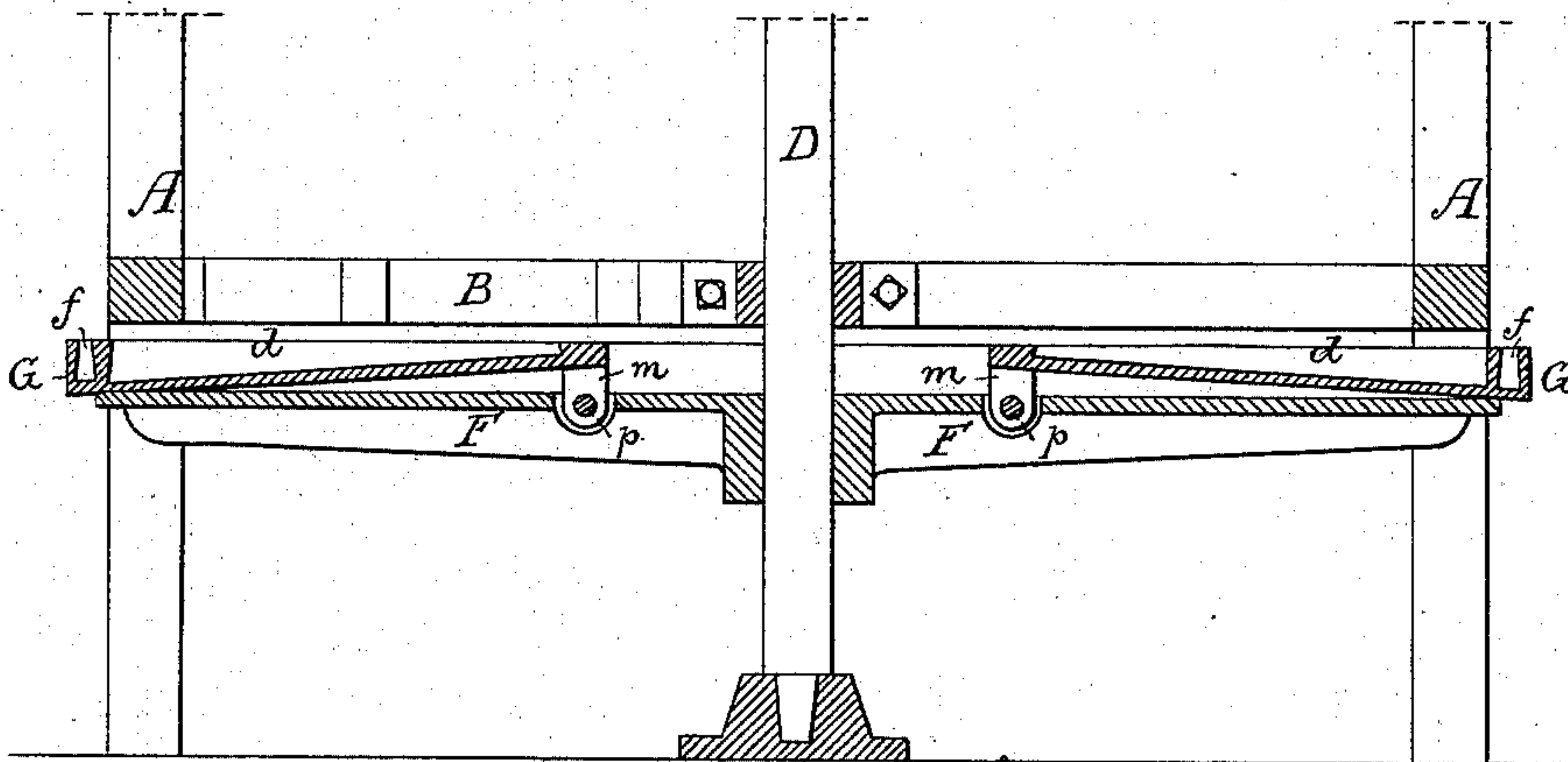
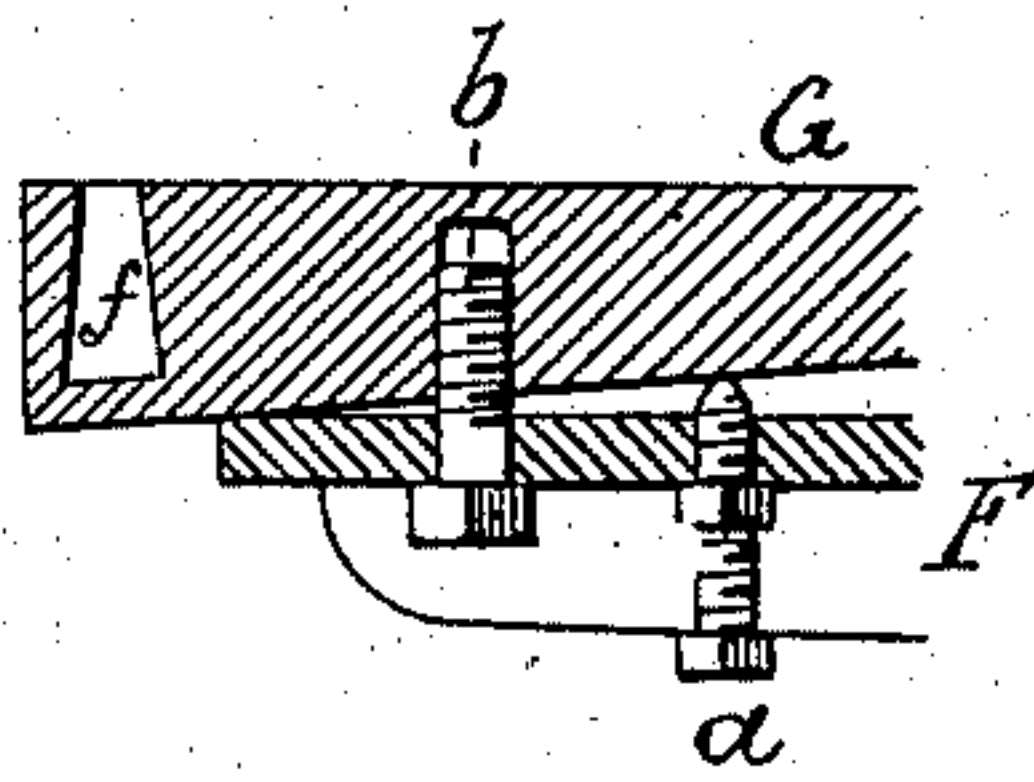


Fig. 4.



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UNITED STATES PATENT OFFICE.

ZEBULON BUTLER, OF WILKES-BARRÉ, PENNSYLVANIA.

STONE-WORKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 288,544, dated November 13, 1883.

Application filed August 6, 1883. (No model.)

To all whom it may concern:

Be it known that I, ZEBULON BUTLER, a citizen of the United States, and a resident of Wilkes-Barré, Pennsylvania, have invented certain Improvements in Stone-Working Machinery, of which the following is a specification.

My improvements relate to what is known as a "rubbing-bed"—that is to say, a rotating disk upon which the block of stone rests—and by contact with sand or like abrading material deposited upon the surface of which the under face of the stone is reduced to the desired condition, the objects of my invention being to so construct the bed as to compensate for wear of the same, and to insure the effective action of the abrading material.

In the accompanying drawings, Figure 1, Sheet 1, is a plan view of a rubbing-bed constructed in accordance with my invention; Fig. 2, a front view of the same, partly in section; Fig. 3, Sheet 2, a vertical section of the same; and Fig. 4 an enlarged view of part of the device.

An ordinary rubbing-bed, consisting of a disk of iron, either in one piece or in sections, rigidly bolted together, soon becomes worn down, as indicated by the dotted lines in Fig. 2, owing to the fact that the greatest amount of wear is at and near the outer edge of the disk. The disk, when so worn, must be reduced to a level surface by chipping—a tedious and expensive operation. Attempts have been made to overcome the objection by placing stones at and near the center of the bed, so as to cause the wearing away of the same, as well as of the outer portion; but this is not effective for the purpose, and is, furthermore, objectionable, because these inner stones require the exercise of additional power in driving the machine, and destroy the freshness and grit of the sand or other abrading material before it reaches a position where it can do effective duty in reducing the outer stone, the sand being introduced at the center of the machine. In order to overcome these objections I use a disk composed of adjustable segments, which can be set up to com-

pensate for wear, and the upper face of the disk thus kept in a horizontal plane.

In the drawings, A represents the framework of the machine, which has an abutment, B, for the block of stone *x*, and is provided with bearings for the central vertical shaft, D, carrying the rubbing-bed, the latter consisting of a frame or spider, F, secured to the shaft D, and carrying segments G, forming the disk on which the stone rests. Each of these segments has at the inner end a lug, *m*, the lugs of adjoining segments being adapted to a slot, *n*, in one of the arms of the spider, and being pivoted to said arm by a transverse pin, *p*. The outer ends of the segments are acted upon by set-screws *a* and *b*, adapted to lugs *c* on the arms of the spider. The set-screws *a* bear upon the under side of the segments, and serve to elevate the same, the set-screws *b* being adapted to threaded openings in the segments, and thus serving, in connection with the set-screws *a*, to lock the said segments in position. The exact means shown for adjusting the segments, however, are not essential, as wedges or filling-pieces, in connection with suitable confining-bolts, may be employed, and, if desired, the segments may be pivoted at the outer ends and adjustable at the inner ends, or may be combined with adjusting devices at both ends.

As there is no wear upon the inner portions of the segments, and no necessity for reducing the surface of the same at intervals, said segments may be made much thinner at the inner than at the outer ends, a saving being thus effected in the construction of the machine.

In the upper face of each segment are formed grooves *d* and *f* for the reception and retention of sand, emery, or other grinding material; but this forms no part of my present invention.

I claim as my invention—

1. The combination of the shaft D, with a frame carried thereby, and segments G, forming a rubbing-bed, and adjustable in respect to the frame to compensate for wear of their upper faces, as set forth.

2. The combination of the shaft D, the frame F, and the segments G, pivoted at the inner ends to said frame, and provided at the outer ends with means for vertical adjustment,
5 as set forth.

3. The combination of the shaft D, the frame F, and the segments G, each pivoted at the inner end to said frame, and each combined at the outer end with adjusting set-
10 screws *a* and locking set-screws *b*, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ZEBULON BUTLER.

Witnesses:

GEO. A. WELLS,
JOHN B. REYNOLDS.