

No. 698,829.

Patented Apr. 29, 1902.

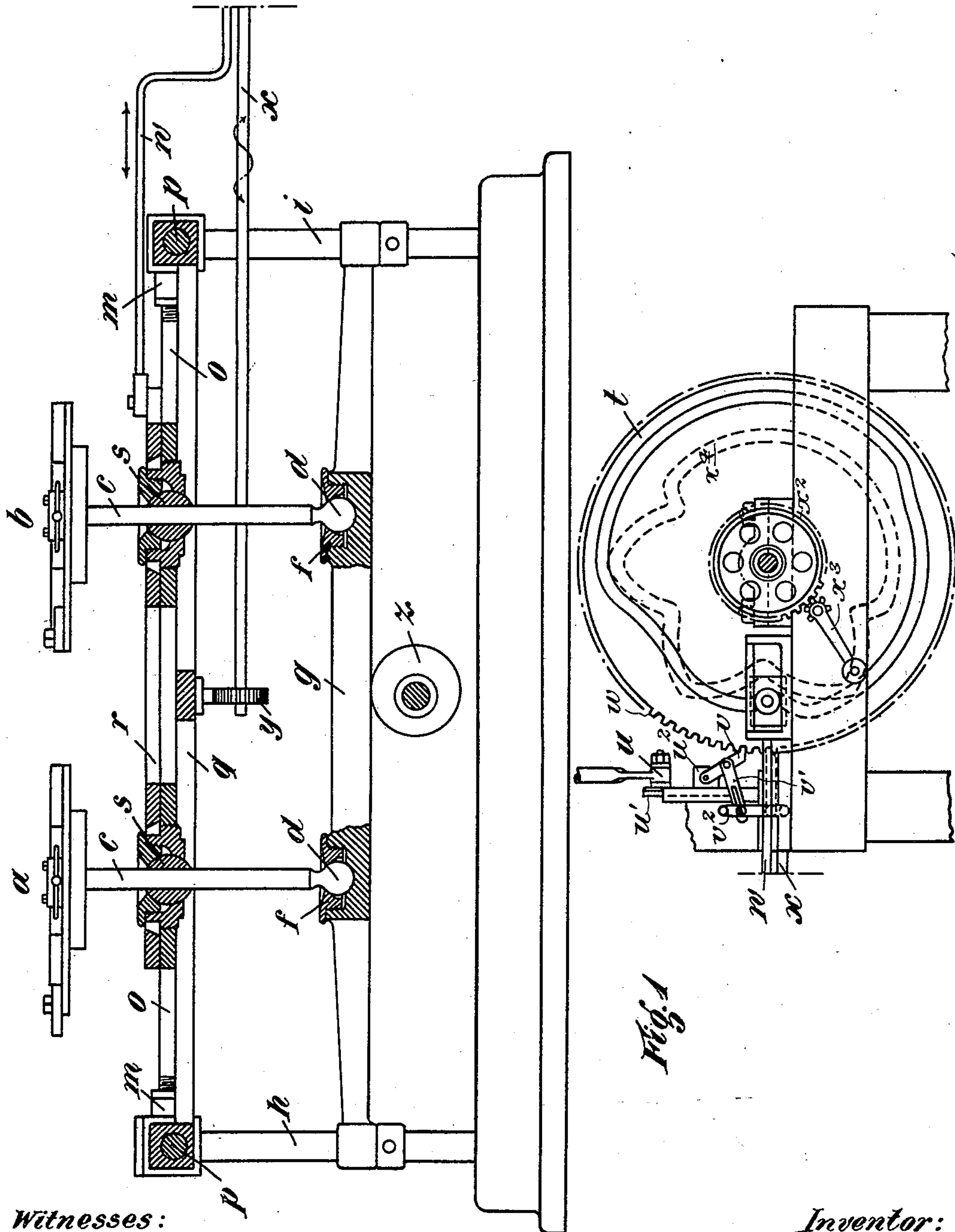
C. E. FLEMMING.

MACHINE FOR BORING BRUSH BLOCKS AND SETTING IN THE BRISTLES.

(Application filed June 28, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:

Jules C. Hertzog
E. Haensch.

Inventor:

Carl Eduard Flemming
by F. D. Singer atty

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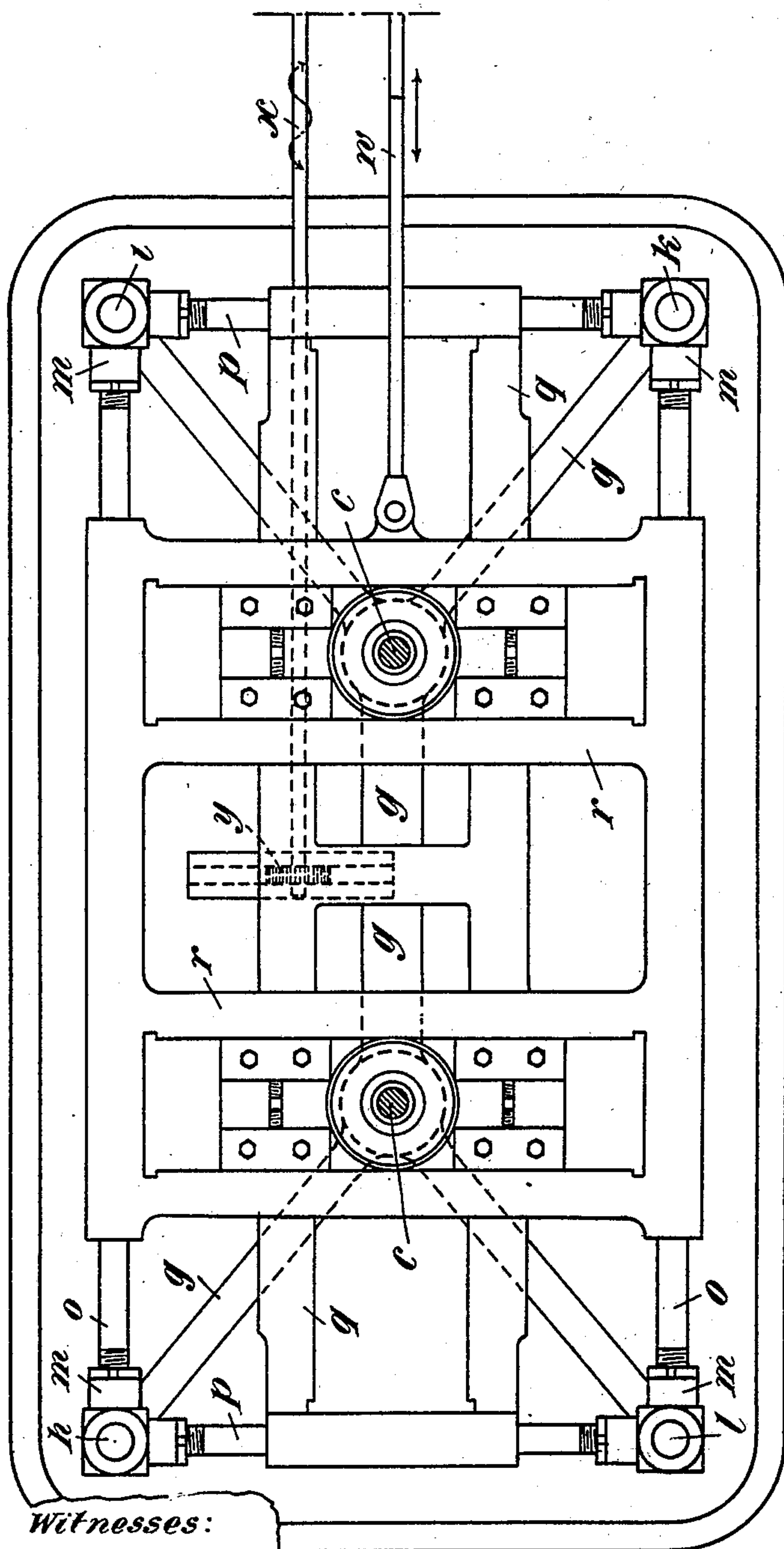
C. E. FLEMMING.

MACHINE FOR BORING BRUSH BLOCKS AND SETTING IN THE BRISTLES.

(Application filed June 26, 1901.)

(No Model.)

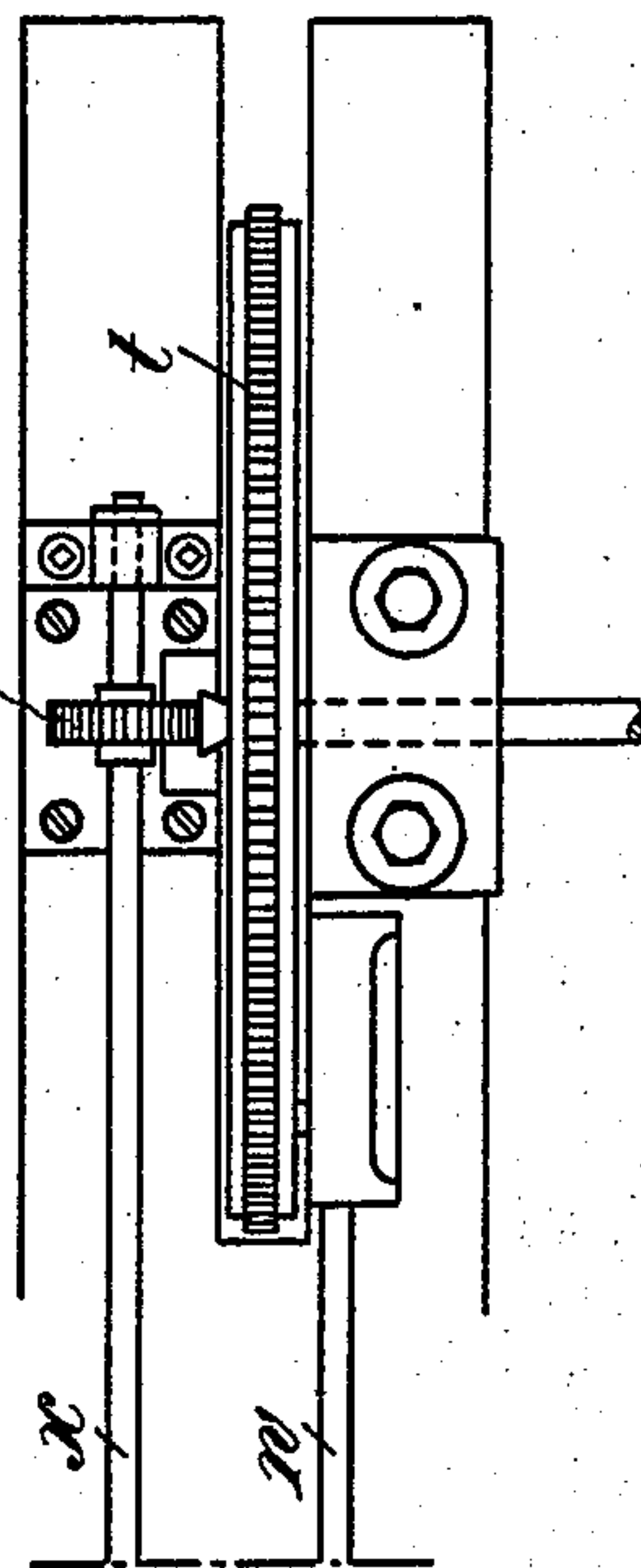
2 Sheets—Sheet 2.



Witnesses:

Jules C. Hertzog
E. Karsusch.

Inventor:
Carl Eduard Flemming
by B. Singer atty



UNITED STATES PATENT OFFICE.

CARL EDUARD FLEMMING, OF SCHÖNHEIDE, GERMANY.

MACHINE FOR BORING BRUSH-BLOCKS AND SETTING IN THE BRISTLES.

SPECIFICATION forming part of Letters Patent No. 698,829, dated April 29, 1902.

Application filed June 26, 1901. Serial No. 66,073. (No model.)

To all whom it may concern:

Be it known that I, CARL EDUARD FLEMMING, a subject of the King of Saxony, residing in Schönheide, in the Kingdom of Saxony, in the German Empire, have invented certain new and useful Improvements in Machines for Boring Brush-Blocks and Setting in the Bristles, of which the following is a specification.

This invention relates to a machine for boring brush-blocks and setting in the bristles; and my improvements in machines of this kind relate to certain combinations and arrangements of parts which are fully described hereinafter.

The main object of my improvements consists in connecting the work-tables with each other in such a manner that they may be moved simultaneously and may be inclined at any time in the same direction and to like angles, and I produce these movements by supporting the work-tables by means of vertical bars or rods resting upon ball-joints and being connected with each other by slides arranged so as to be capable of being moved relatively to each other—that is to say, rectangularly one to the other, the connections being effected in such a way that the tables are moved and inclined in the manner aforesaid.

In order to make my invention more clear, I refer to the accompanying drawings, in which similar letters denote similar parts throughout the several views, and in which—

Figure 1 is a vertical longitudinal section through my improved machine; and Fig. 2 is a plan of the same, the work-tables being removed.

Referring to Fig. 1, *a* and *b* are the work-tables intended to receive the brush-blocks to be bored and the bored brush-blocks to be provided with the bristles. The boring device proper is situated above one of the work-tables—for instance, above *a*—and the device for setting in the bristles is located above the other work-table—for instance, *b*. The two devices just mentioned are of known construction, and I have therefore dispensed with representing them in the drawings. Each of the two work-tables is secured to a vertical rod or bar *c*, the lower end *d* of which is ball-shaped—that is to say, forms a ball-joint or ball-bearing *d*, supported by the bearing

proper, *f*. The two bearings proper, *f*, are preferably supported by a common traverse *g*, connected with the frame of the machine in such a manner that it may be guided in a vertical direction along the standards *h, i, k, l* of the frame. The upper ends of the standards *h, i, k, l*, are connected by elbow-joints *m* with horizontal bars *p*, the bars *o* extending in the longitudinal direction of the frame and the bar *c* extending rectangularly thereto. The bars *p* support a slide *q* and the bars *o* support a slide *r*, and the two slides *q* and *r* take around the rods *c*, carrying the work-tables, by means of ball-joints *s*, suitably connected with said rods as well as said slides, the connection being effected in such a manner that the work-tables can be moved and tilted or inclined in the aforescribed manner. The displacement of the two slides is preferably effected by known means, such as shown in the drawings, in which a disk *t*, provided on both sides with cam-grooves, operates a rod *q* and a shaft *x*, the latter having at one end a cog-wheel *x*, actuated in any suitable manner from wheel *x*², which in turn is oscillated by clogged lever *x*³, having a roller at its free end taking into cam-groove *x*⁴ in that side of the disk *t* adjacent to said shaft and at the other end a cog-wheel *y*, actuating a rack attached to the slide *q*. The resulting movement produced by the simultaneous although perhaps different displacements of the slides *k* and *r* is the movement of the rods *c* with their work-tables *a* and *b*, which are thus inclined in a corresponding measure. The disk *t* may be operated by means of link *u*, attached to slide *u*¹, and raised and depressed by any suitable means. To a lug *u*² from said slide is pivoted the heel of a pawl *v*, controlled in its movements by slotted link *v*¹, taking over guide-pin *v*². When the slide is raised, the slotted link is drawn out, and when the slide is depressed it acts to throw the pawl into engagement with gear *w* on the periphery of disk *t*, whereby the latter is driven. In order to obtain also a vertical displacement or adjustment of the work-tables, the traverse *g* may be raised or lowered by means of an eccentric disk or cam-disk *z*; but I wish it to be understood that other means may be employed in lieu of said disk or cam. Having now described my invention, what

I desire to secure by Letters Patent of the United States is—

1. In a machine for boring brush-blocks and setting in the bristles, the combination with
5 the work-tables *a b*, of rods *c* supporting said tables, ball-joints *d f* supporting said rods, slides *q r* taking around the said rods and being adapted to be moved one rectangularly to the other, and means for thus operating
10 said slides, substantially and for the purpose as described.

2. In a machine for boring brush-blocks and setting in the bristles, the combination with
15 the work-tables *a b*, of rods *c* supporting said tables, ball-joints *d f* supporting said rods, a traverse *g* carrying said ball-joints, slides *q r* taking around the said rods and being adapted to be moved one rectangularly to the other in a horizontal direction, means for thus operating said slides, and other means for lifting or lowering said traverse, substantially
20 and for the purpose as described.

3. In a machine for boring brush-blocks and setting in the bristles, the combination with
25 the work-tables *a b*, of rods *c* supporting said tables, ball-joints *d f* supporting said rods,

slides *q r* taking around the said rods and being adapted to be moved one rectangularly to the other, ball-joints *s* inserted between the rods and said slides, and means for displacing the latter independently from one another in a horizontal direction, substantially
30 and for the purpose as described.

4. In a machine for boring brush-blocks and setting in the bristles, the combination with
35 the work-tables *a b*, of rods *c* supporting said tables, ball-joints *d f* supporting said rods, slides *q r* taking around the said rods and being adapted to be moved one rectangularly to the other, pairs of parallel bars *o o p p* supporting said slides, vertical standards *h i k l*
40 supporting said bars, and threaded elbow-joints connecting said standards with the said bars, and means for displacing the said slides upon said pairs of parallel bars, substantially
45 and for the purpose as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

CARL EDUARD FLEMMING.

Witnesses:

HANS GAMPERT,

BERNHARD SCHMIDT.