

(No Model.)

W. C. & J. J. KOETZNER.  
FLOOR POLISHING BRUSH.

No. 562,362.

Patented June 16, 1896.

Fig. 4.

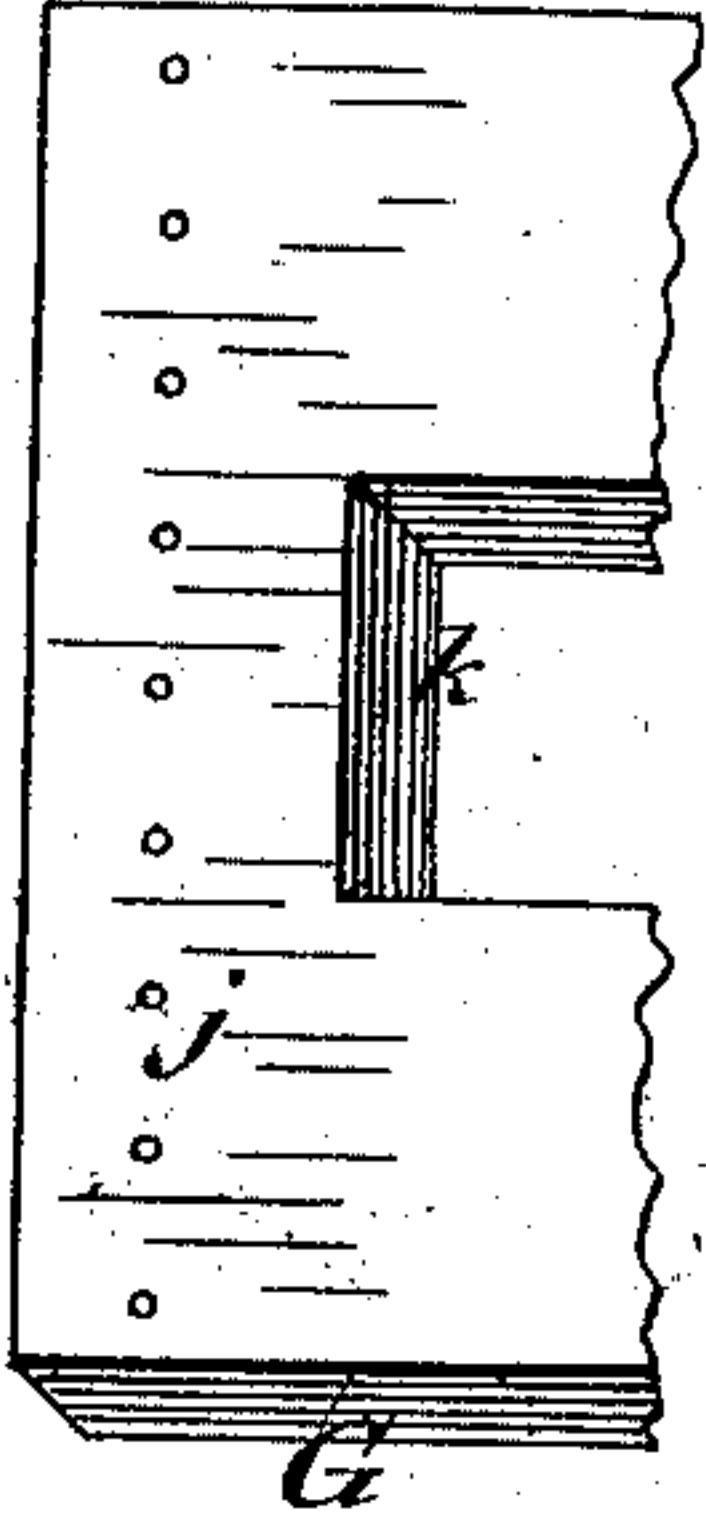


Fig. 1.

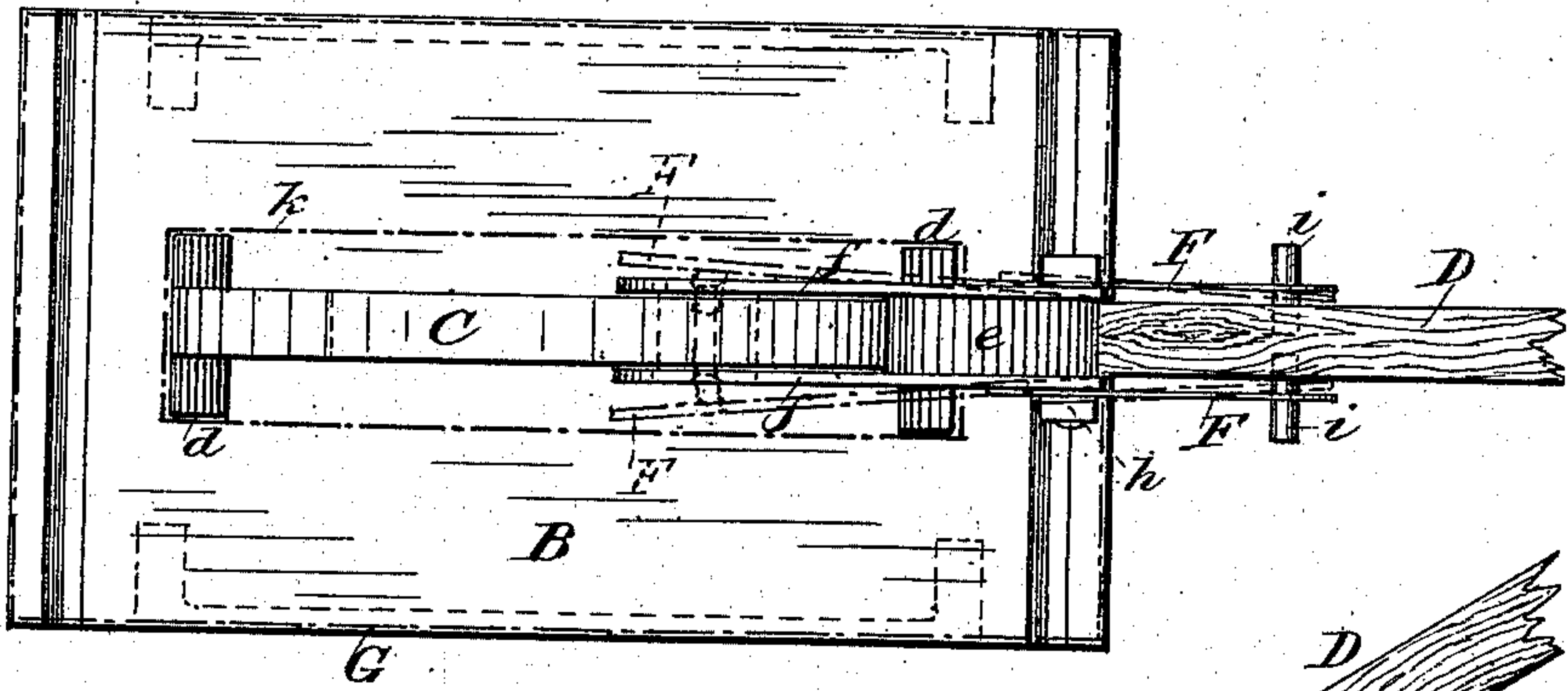


Fig. 2.

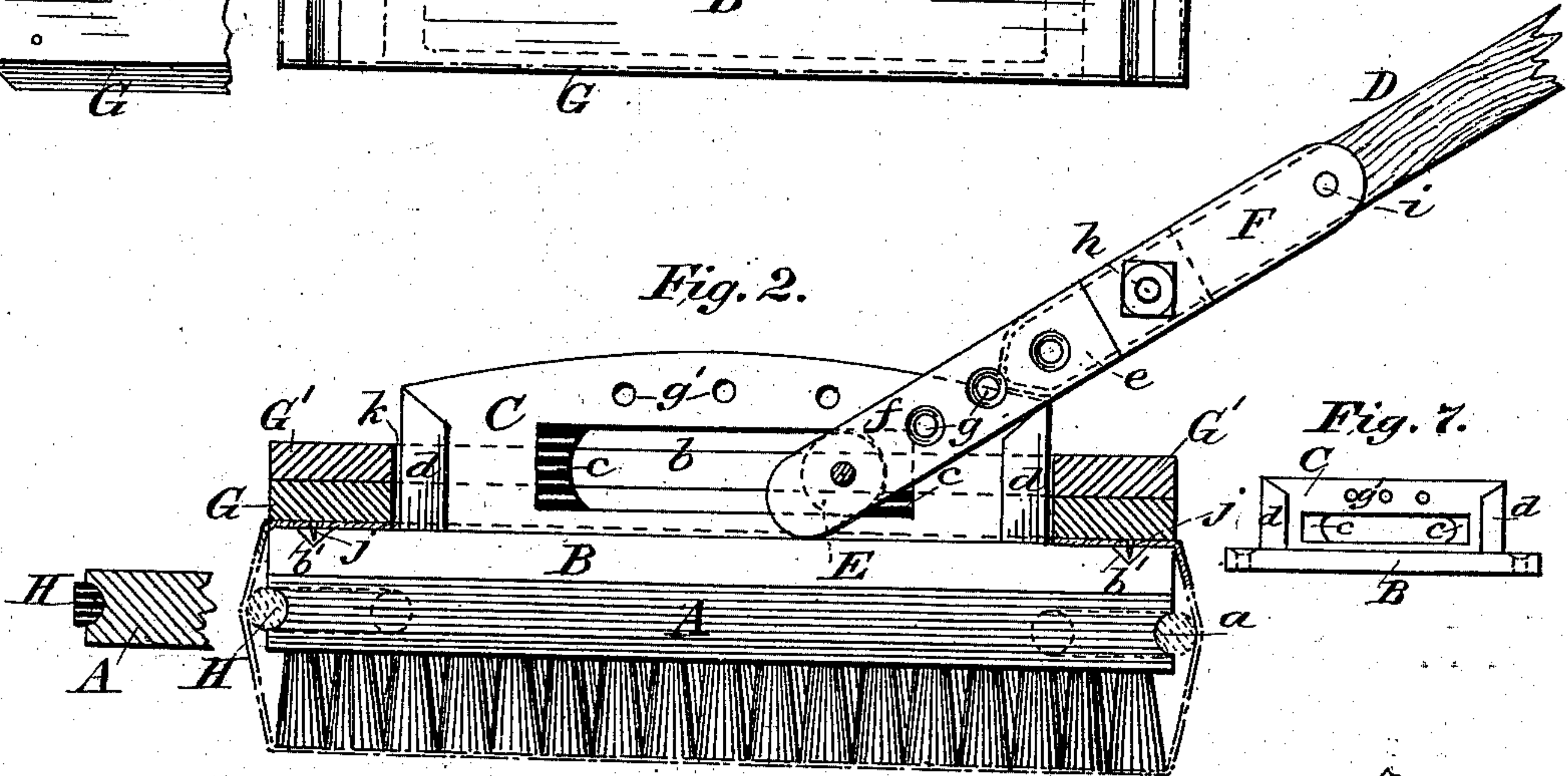


Fig. 7.

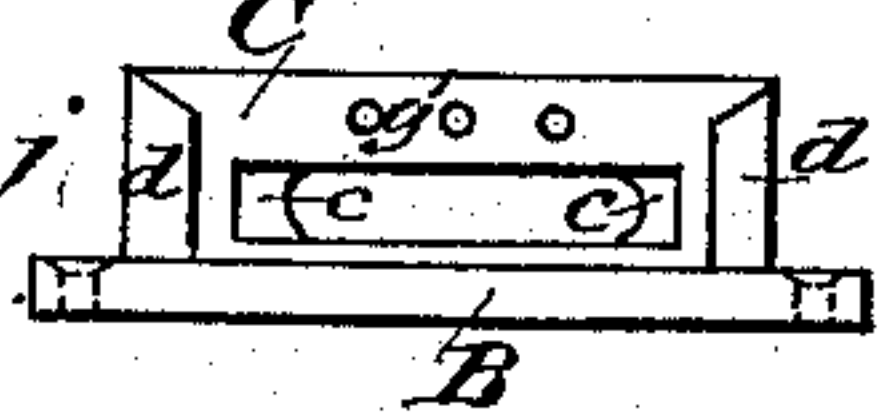


Fig. 5.

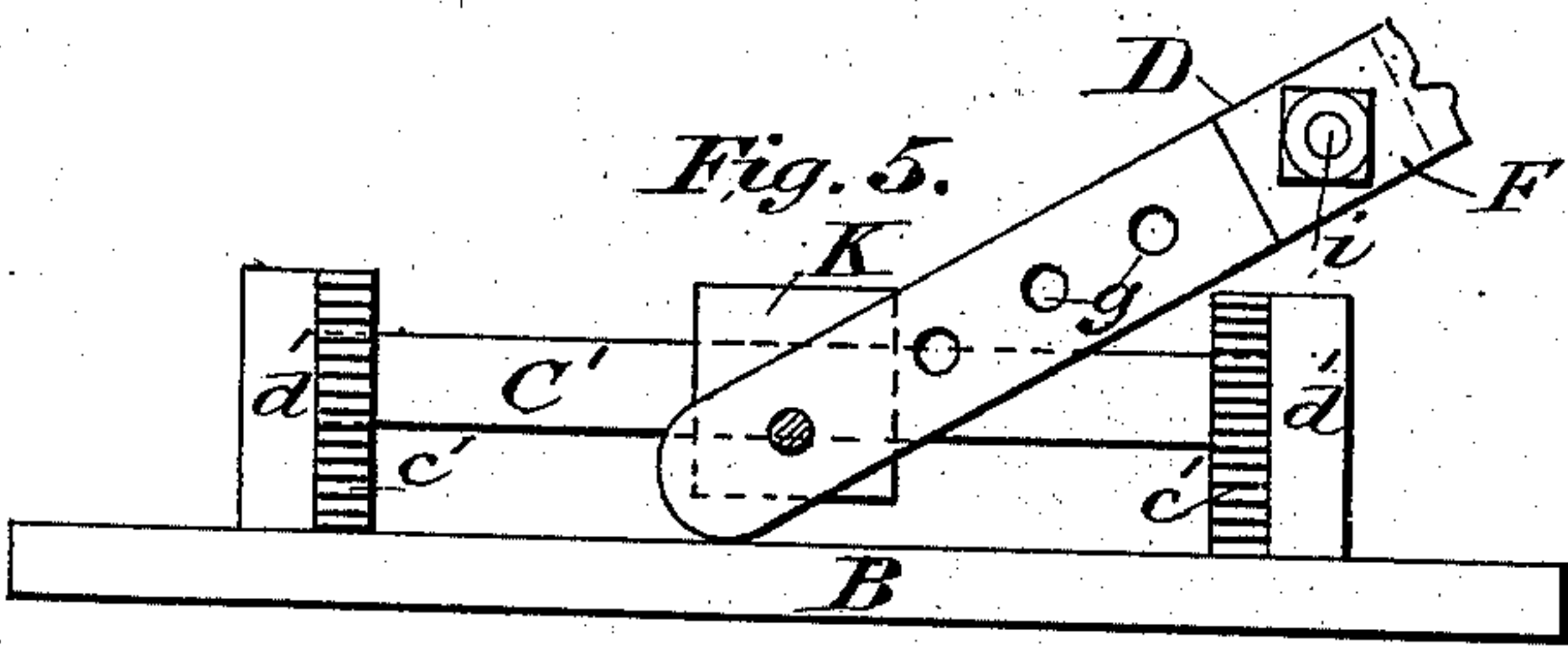


Fig. 6.

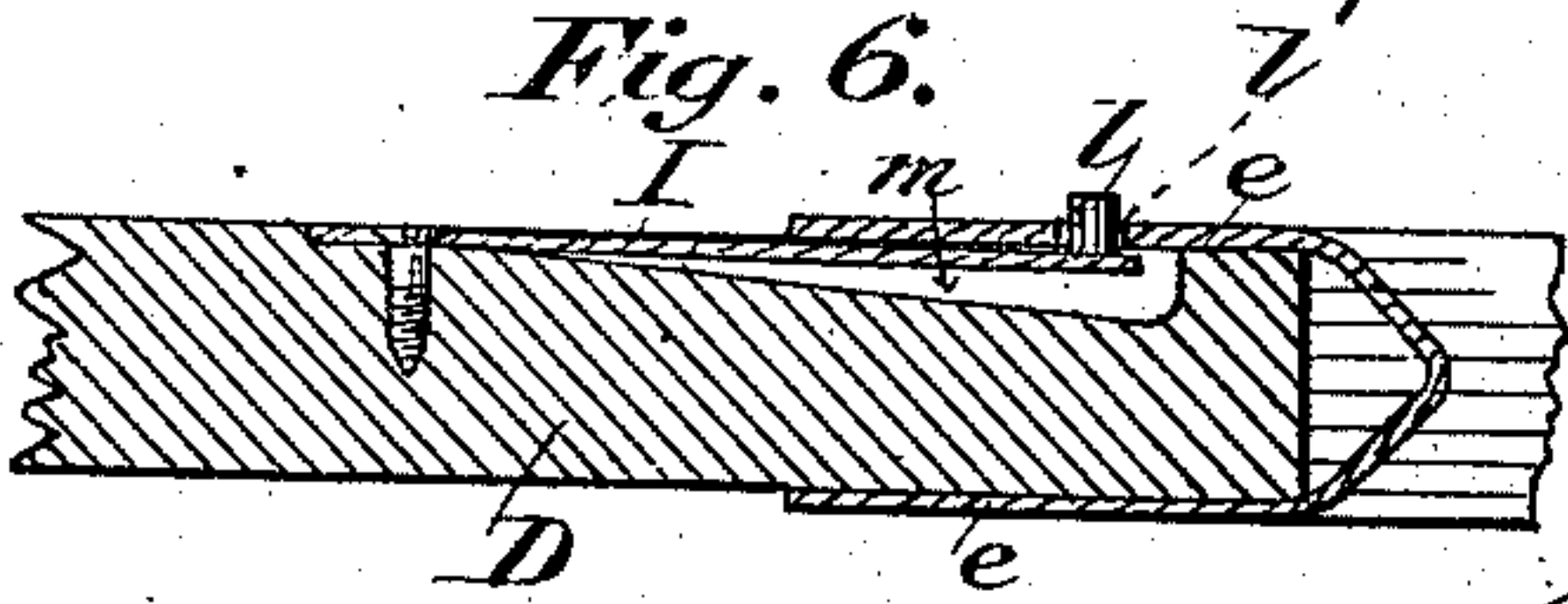
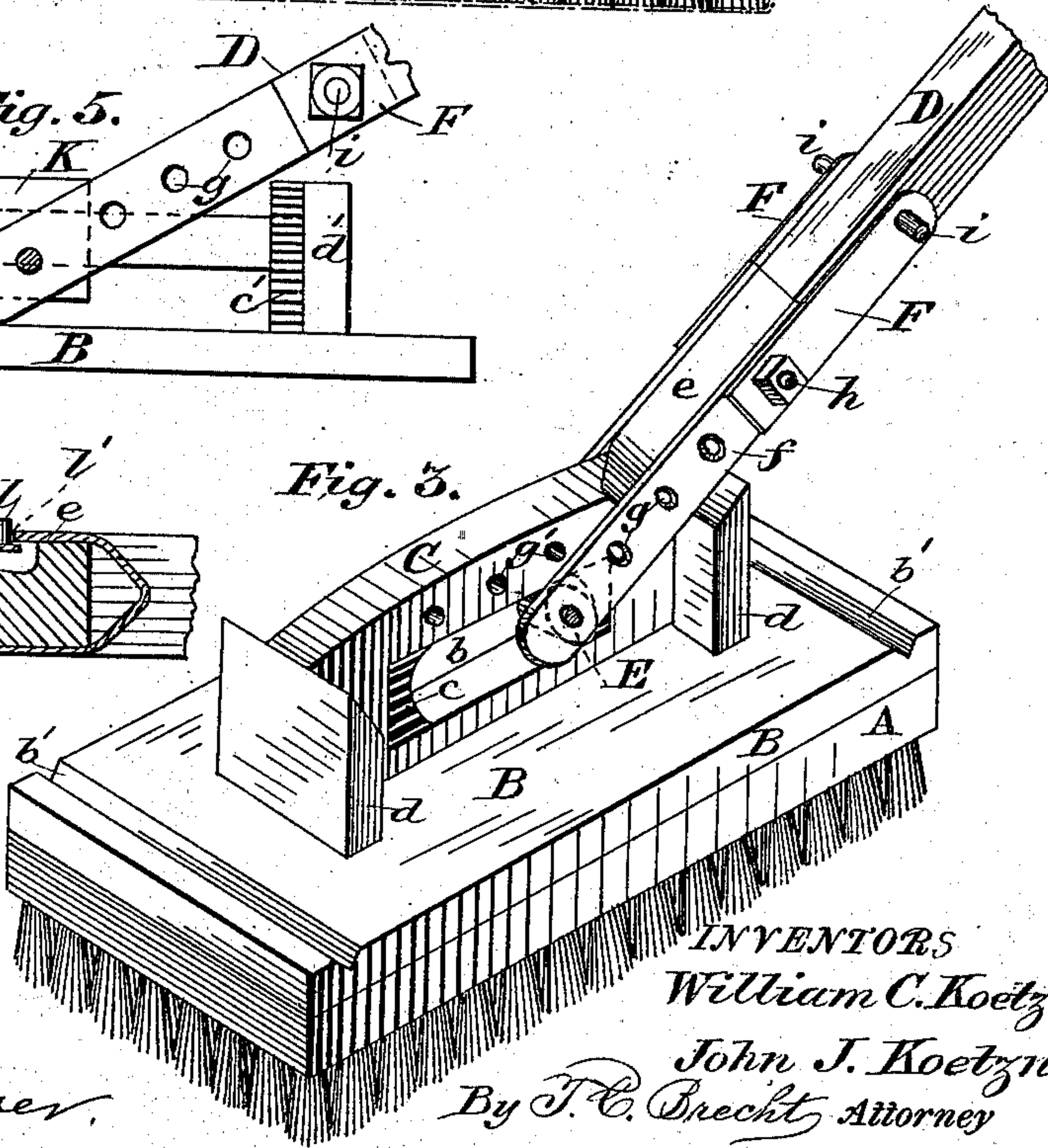


Fig. 3.



WITNESSES

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# UNITED STATES PATENT OFFICE.

WILLIAM C. KOETZNER, OF BALTIMORE, MARYLAND, AND JOHN J. KOETZNER, OF WASHINGTON, DISTRICT OF COLUMBIA.

## FLOOR-POLISHING BRUSH.

SPECIFICATION forming part of Letters Patent No. 562,362, dated June 16, 1896.

Application filed June 27, 1894. Serial No. 515,905. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM C. KOETZNER, residing at Baltimore, in the State of Maryland, and JOHN J. KOETZNER, residing at Washington, in the District of Columbia, citizens of the United States, have invented certain new and useful Improvements in Floor-Polishing Brushes; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Our invention relates to improvements in floor-polishing brushes; and the object is to overcome the many objections now met with by those skilled in the art of waxing and polishing floors, &c., as is well known, and therefore to produce a brush for waxing and polishing floors, &c., but also applicable for other purposes; also to arrange the brush in such manner that it can be used as a hand-brush, or with a long handle, when in upright position; also that it may be used with adjustable weights, easily applied or detached, and to suit the strength of weak or strong persons; also to readily apply or detach the long handle, and provide it with a friction-roller, arranged in such manner as to be out of the center, thereby causing the face of the brush to remain in a horizontal position, and thus cause it to wear equal or even on its face, avoiding the uneven surfaces in wax-floors now usually produced; furthermore, to facilitate the throwing of the brush from one to the other side of the room, by loosening the handle and pivoting it; also to produce means for polishing the floor after it has been waxed by applying fibrous material over the bristles, and finally to prevent injury to the washboards, &c., by scratching or bumping by the sides of the brush coming in contact therewith.

With these objects in view our invention consists in the peculiar construction of certain details and the arrangement of parts, as will be more fully described hereinafter, and

specifically pointed out in the claims, reference being had to the accompanying drawings, and the letters of reference marked thereon.

Like letters indicate similar parts in the different figures of the drawings, in which—

Figure 1 represents a top view of our improved brush. Fig. 2 is a side elevation of the same, partly in section. Fig. 3 is a perspective view thereof with the weights removed and the long handle attached. Fig. 4 is a detail view of a plate with pins for securing the fibrous material in perspective, partly broken. Fig. 5 is a modification of attaching the operating-handle. Fig. 6 is a detail sectional view of another modification for securing the handle. Fig. 7 is a modification of the short handle.

In the accompanying drawings, A represents the main body of the brush, in which the bristles are secured in the ordinary manner. It can be made of any size and material desired, and is secured to a metal plate B, having the short handle C, which is provided with a slot *b*, in each end of which are placed the rubber cushions *c*, to prevent jarring, in throwing the brush from one side to the other of a room. Said handle has at each end shoulders *d*, serving to hold the weights steady when applied in place. This handle C serves to use the brush with the hand, when in a kneeling or stooping position.

If it is desired to use the brush by a person in an upright position, a long handle D is applied in the following manner: An eye *e* is provided with the two plates or ears *f*, forming a forked end, which passes over the upper part of the short handle C and carries a friction-roller or pulley E, loosely fitting into slot *b*. It facilitates the movements of the handle in its forward and backward motion, when loosely pivoted, as described farther on. In the ears *f* are provided a series of holes *g*, and in the short handle C are similar holes *g'*. Two springs F, pivoted to the bolt *h*, which serves also to secure the long handle to the ears *f*, are provided with pins *i*, that will enter either one of the sets of holes *g* and *g'*, when said springs are turned downward, and thus secure the handle in fixed position, at a greater



or lesser angle or centrally, to suit the circumstances. When the brush is to be swung, or what is termed "thrown" from side to side, the springs F are turned downward by releasing the pins *i* from the hole in the handle D and are entered into one of the holes *g'*, thus pivoting the brush.

The plate B is provided at each end with a groove *b'* for the reception of pins *j* on the weight G and serves to hold a piece of fibrous material, such as carpet, flannel, or its equivalent, which passes over the face of the bristles in the brush, as shown in broken lines in Fig. 2, and serves for polishing the floor after it has been waxed, the carpet being clamped and held at each end by said pins *j*. The weights G G' are each provided with a rectangular opening *k*, (seen best in broken lines in Fig. 1,) so that they can be readily placed over the shoulders *d* on the plate B. As many of these plates or weights G G' can be employed as desired. In the edge of the body A a groove *a* is formed, into which a band of rubber H of circular, semicircular, or equivalent form is placed, to prevent the brush coming in contact with the washboard, and thereby scratching or injuring it.

The handle D may be secured to the brush in the manner shown in Fig. 6, in which the spring I having a pin *l* is secured to the handle D by a screw *o*, and a groove *m* is provided, and when the pin *l*, which engages with a hole *l'* in the eye *e*, is pressed upon the spring is

depressed into said groove, and the handle can be removed.

In the modification shown in Fig. 5 the short handle C' consists of a square or rectangular bar secured to the shoulders *d'* with the cushions *c'*. A cross-head K fits over this bar C' and to it the handle D is attached, and the brush can thus be thrown backward and forward.

The short handle C' may be made detachable, as shown in Fig. 7.

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

1. The floor-polishing brush described, consisting of the brush A, provided with the handle C provided with the slot *b*, in which the roller E, secured to the springs F moves as and for the purpose specified.

2. The floor-polishing brush described, consisting of the brush A, provided with the handle C, provided with the slot *b* in combination with the handle D having springs F for adjusting it, and provided with the roller E moving in said slot, and all arranged as shown and set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM C. KOETZNER.  
JOHN J. KOETZNER.

Witnesses:

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