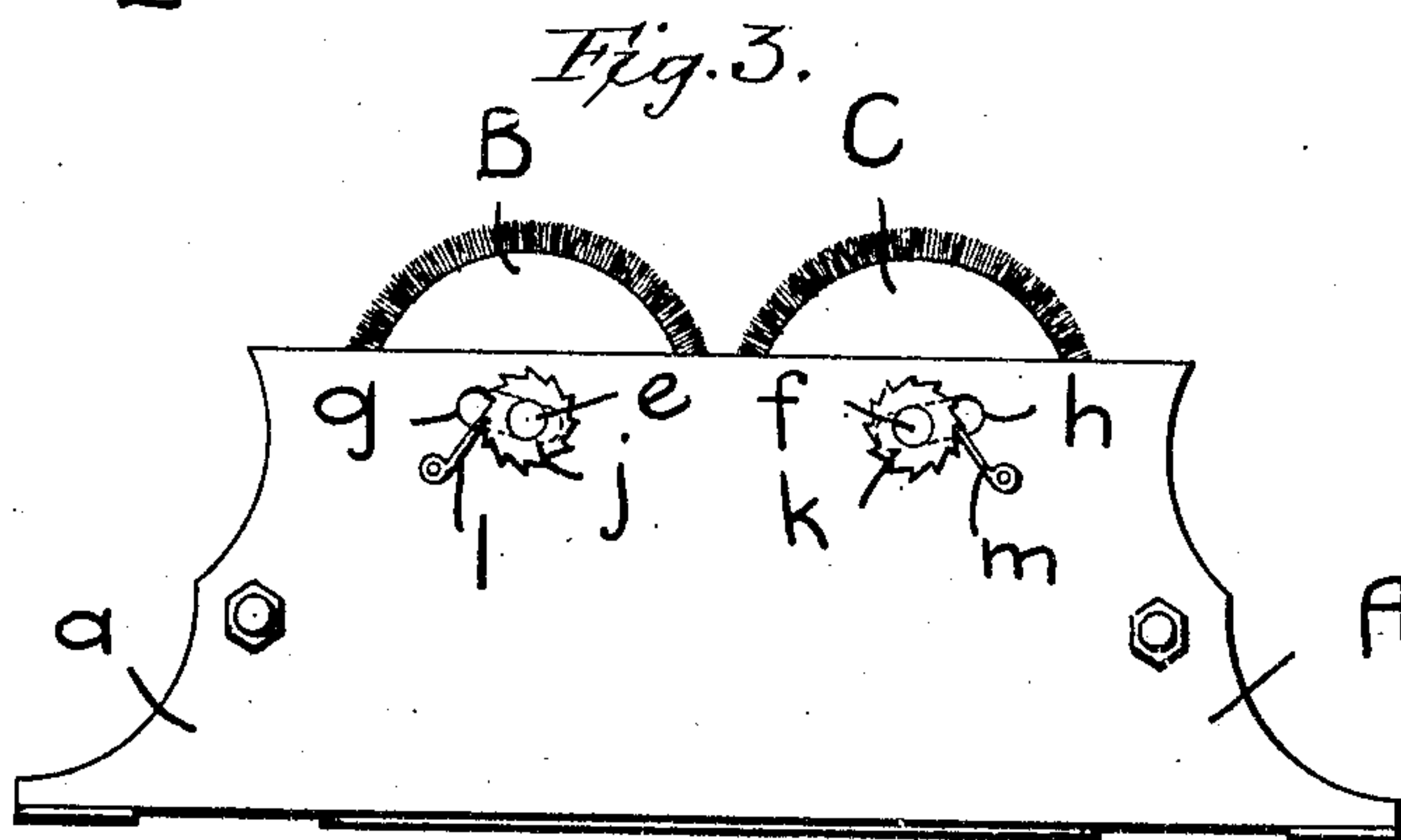
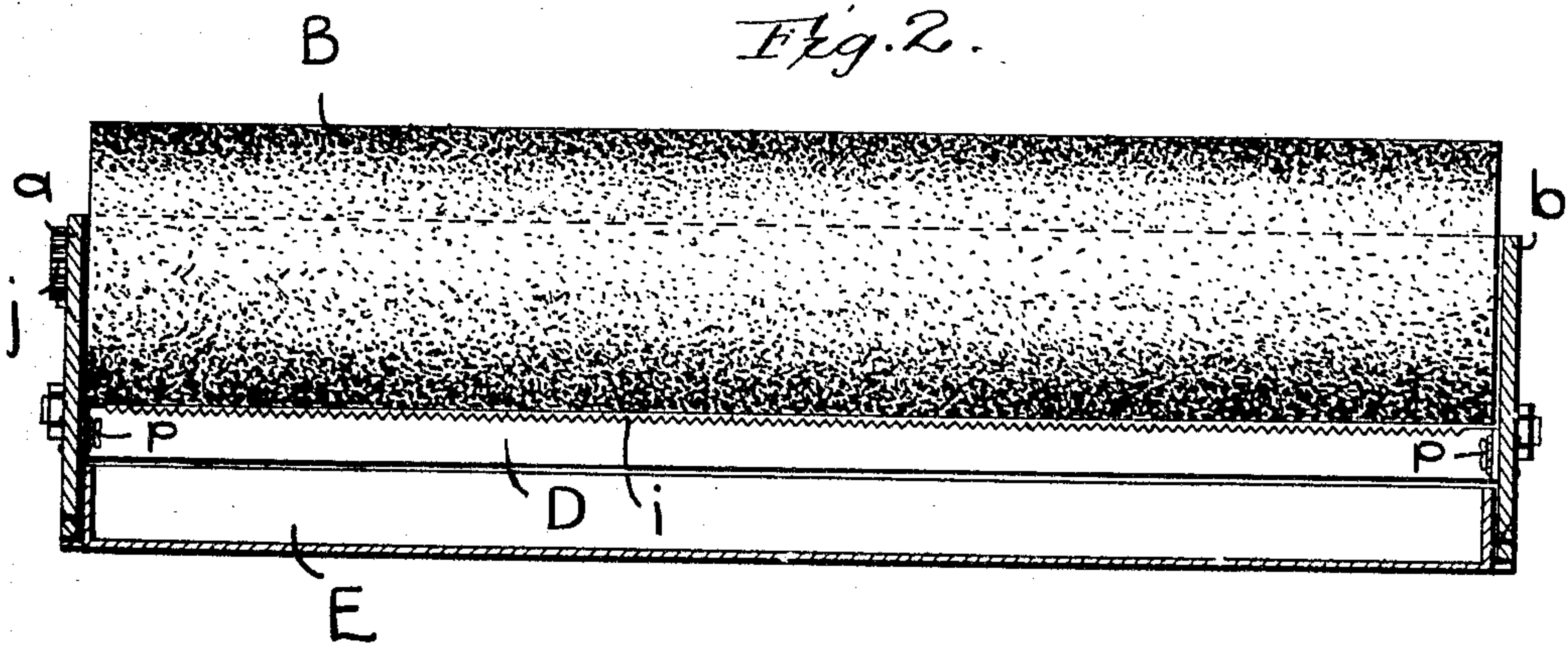
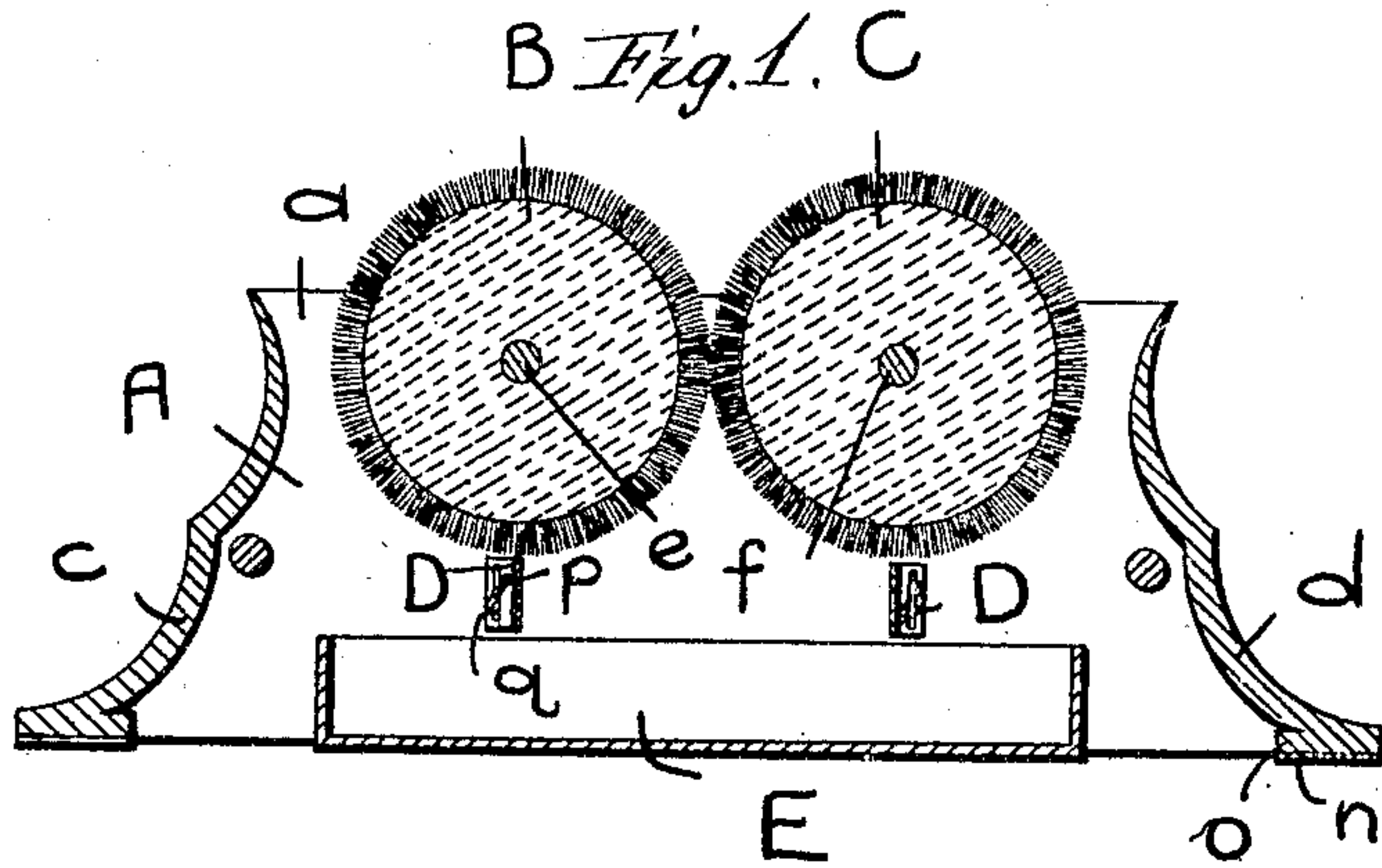


No. 870,679.

PATENTED NOV. 12, 1907.

A. C. HOUGHTON.  
BOOT CLEANER.

APPLICATION FILED FEB. 20, 1907.



WITNESSES

Wm. A. Wynne

J. A. L. L.

INVENTOR  
A. C. HOUGHTON.

BY

Frank L. L.

ATT'Y.



# UNITED STATES PATENT OFFICE.

ANDREW C. HOUGHTON, OF WINNIPEG, MANITOBA, CANADA.

## BOOT-CLEANER.

No. 870,679.

Specification of Letters Patent.

Patented Nov. 12, 1907.

Application filed February 20, 1907. Serial No. 358,524.

*To all whom it may concern:*

Be it known that I, ANDREW CHARLTON HOUGHTON, of the city of Winnipeg, in the county of Selkirk, Province of Manitoba, Canada, have invented certain new and useful Improvements in Boot-Cleaners, of which the following is a specification:

My invention relates to improvements in boot cleaners, of the type in which two rollers operate on the side of the boot, and its objects are to provide means, whereby the rollers will remain in yielding contact with each other, and thus become self-cleaning, permitting, however, a separation to allow the passage of heavy lumps of mud, dirt or the like, through them, further objects being to provide independent means for cleaning each roller; and it consists essentially of a casing, two rollers therein, journaled in slots inclined towards each other, and cleaning blades beneath the rollers, all as hereinafter more fully set forth and described in the accompanying specifications and drawings.

In the drawings, Figure 1 is a transverse sectional view through the boot cleaner. Fig. 2 is a longitudinal sectional view through the same. Fig. 3 is an end view.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is the casing, comprising two end members *a* and *b*, and side members *c* and *d*. The upper portion of the side members of the casing are turned outward and upward, and are reduced to a thin edge, in order to constitute scrapers for the removal of the mud from the sole of the shoe. The edge of these members extends above the axial line of the rollers.

B and C are the two brushing rollers having their surfaces covered with suitable matting, and secured on shafts *e* and *f*, which are journaled in the end members of the casing, in inclined slots *g* and *h*. Each of these slots is downwardly and centrally inclined whereby the rollers, under action of gravity, will roll inwardly, until their peripheries contact, the slots being of such a length that the shafts, may, accordingly, move inwardly, as the matting on the rollers wears.

Below each of the rollers, cleaning blades D are secured, being preferably adjustably secured to the casing, by means of thumb screws *p*, extending through slots *q*, and having serrated edges *i*, which extend slightly into the brushes on the rollers, and clean the same, as they are rotated.

To prevent the dirt flying outwardly, I provide means whereby the rollers may only rotate inwardly. The means I prefer, comprise ratchet wheels *j* and *k*, secured to the extremities of the shafts *e* and *f*, and being engaged by pawls *l* and *m*, secured to the end member of the casing. These pawls are, preferably, in the form of springs, which, operating on the outside of the ratchet wheels, assist in forcing the rollers in their innermost position.

To prevent the boot cleaner being moved about when placed on smooth surfaces I provide corrugated rubber strips *n*, which are secured to the underside of flanges *o*, on the side members. To catch the mud passing between the rollers, a suitable type of dirt pan E, will be placed within the casing.

It will be seen that the two rollers sliding inwardly to each other and contacting, will provide means whereby they will be automatically cleaned as they are rotated. The two surfaces brushing together will separate all mud, or dirt from the bristles, which will drop into the pan beneath. Should a large piece of mud or dirt come between the rollers, they will separate to allow it to drop through into the pan E beneath.

As the matting on the rollers wears out, they will move closer together, the slots being made sufficiently long for that purpose. Thus the device will operate efficiently until the matting is entirely worn off.

It will be understood that while the device has been described, with great particularity of detail, yet certain changes may be made within the scope of the appended claims, without departing from the spirit of the invention.

What I claim as my invention is:—

1. In a boot cleaner, the combination of a casing having end members each provided with a pair of downward-convergent slots, and a pair of rotary brushes having shafts journaled at both ends in said slots.

2. In a boot cleaner, the combination of a casing having end members each provided with a pair of slots, a pair of rotary brushes having shafts journaled at both ends in said slots, oppositely-toothed ratchet wheels on the ends of said shafts, and spring pawls mounted on the casing and engaging the outer sides of said ratchet wheels, tending to hold the shafts at the inner ends of the slots.

Signed at the city of Ottawa, in the Province of Ontario, this 16th day of February, 1907.

ANDREW C. HOUGHTON.

Witnesses:

RUSSEL S. SMART,  
MARY C. LYON.