

(No Model.)

2 Sheets—Sheet 1.

W. COOPER & J. CORDINGLEY.

DEVICE FOR PASTING COP BOTTOMS ON SPINNING MACHINES.

No. 388,636.

Patented Aug. 28, 1888.

FIG: 1.

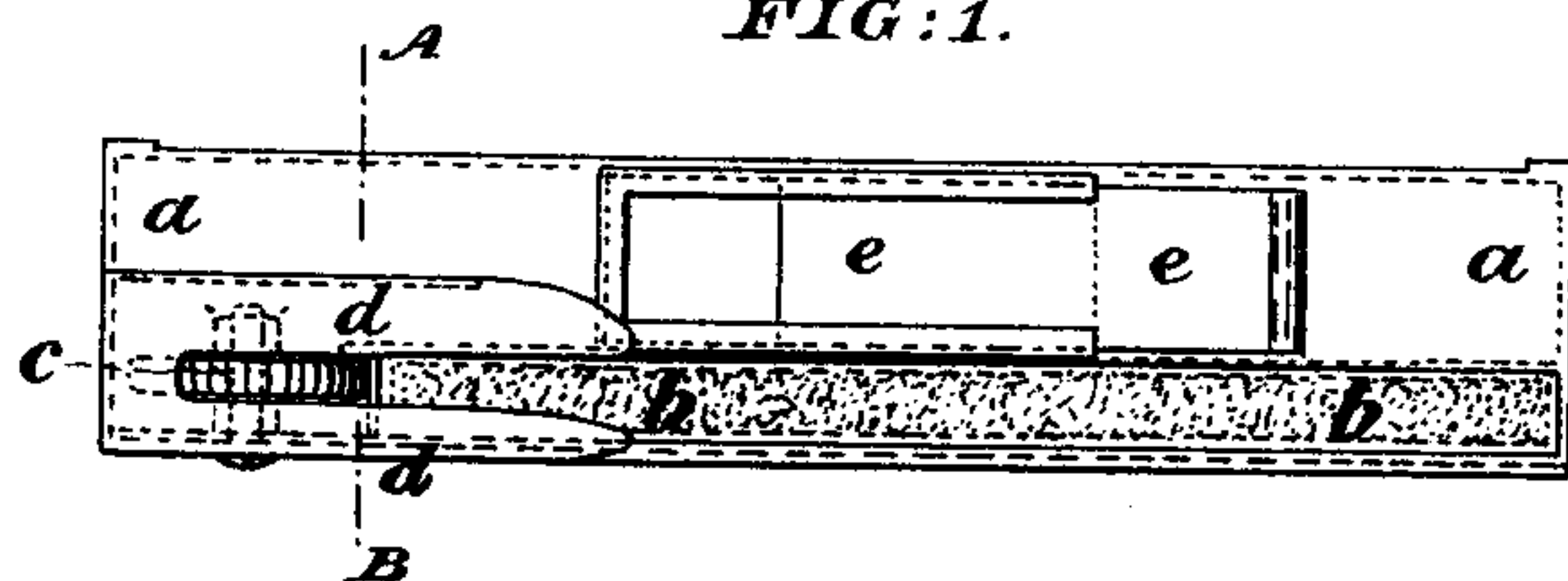


FIG: 3.

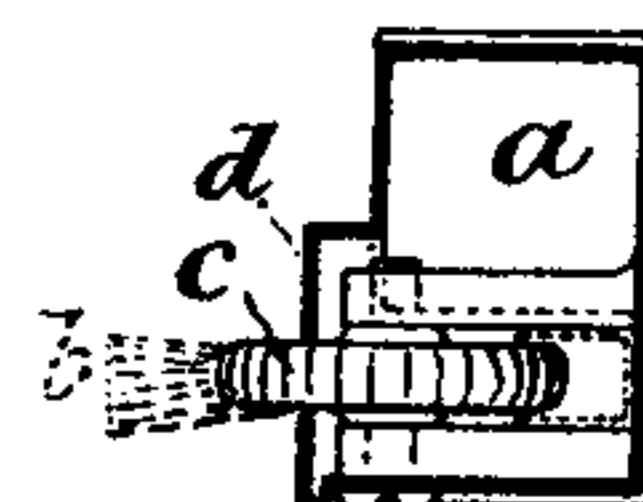


FIG: 2.

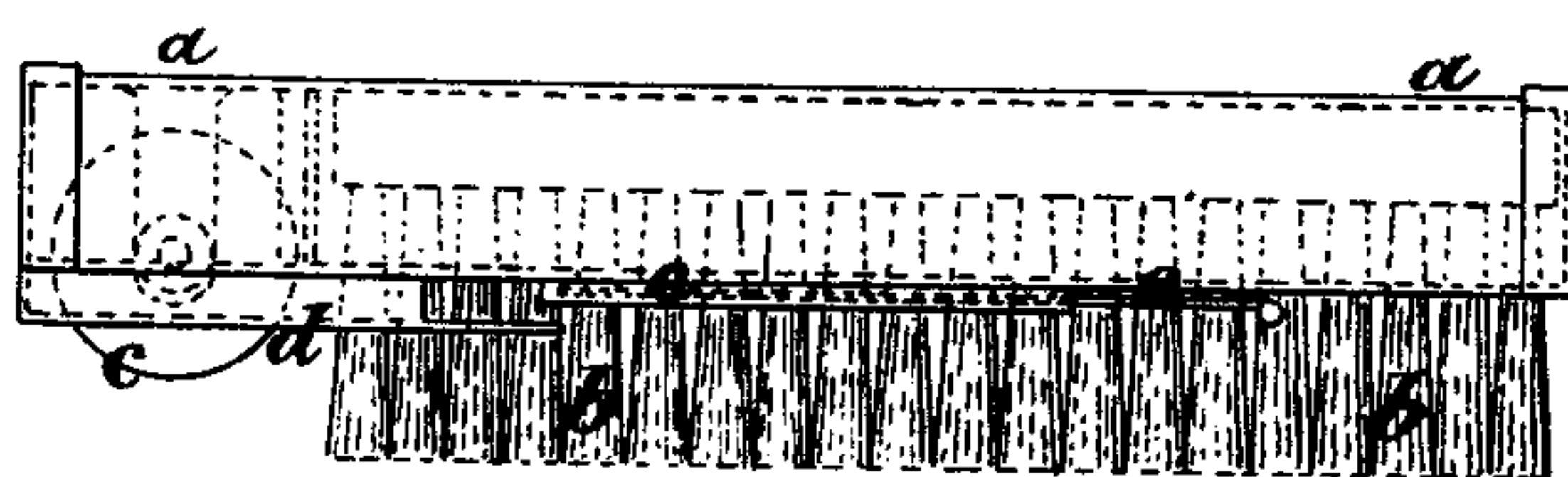


FIG: 4.

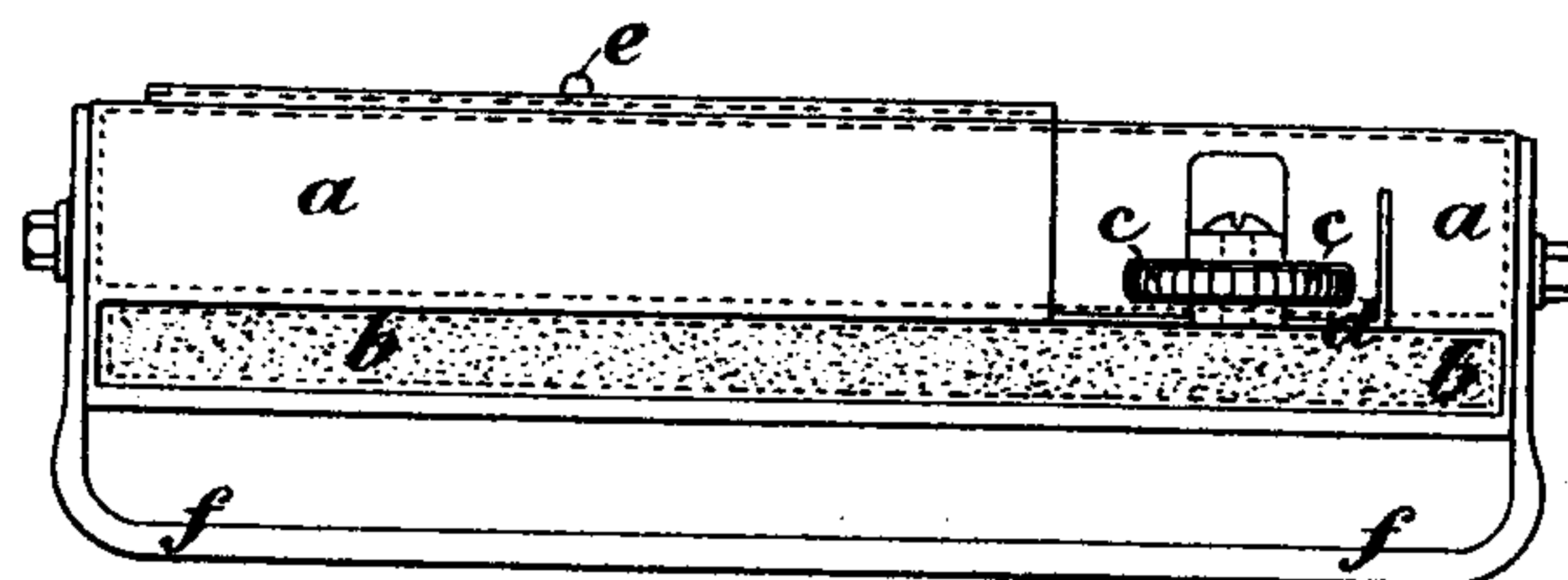


FIG: 5.

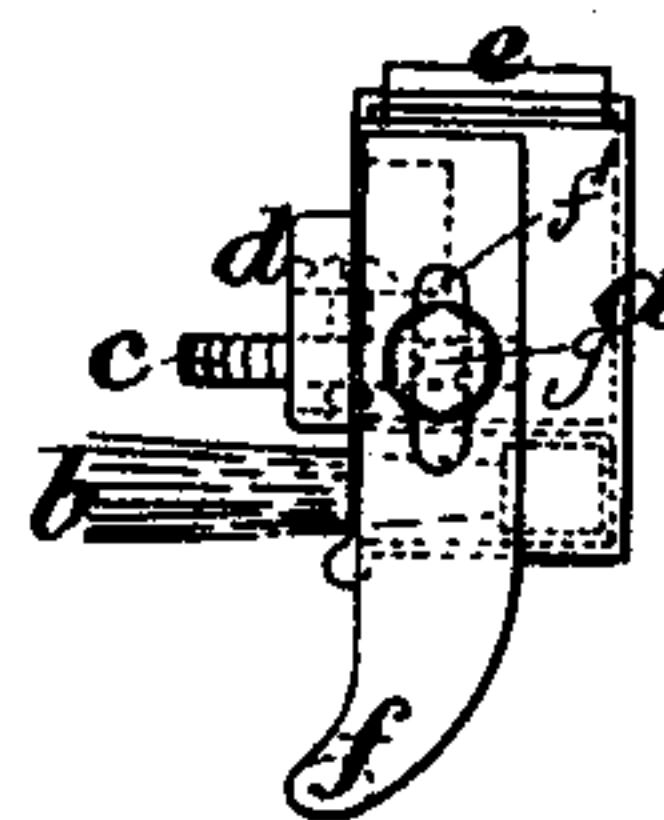
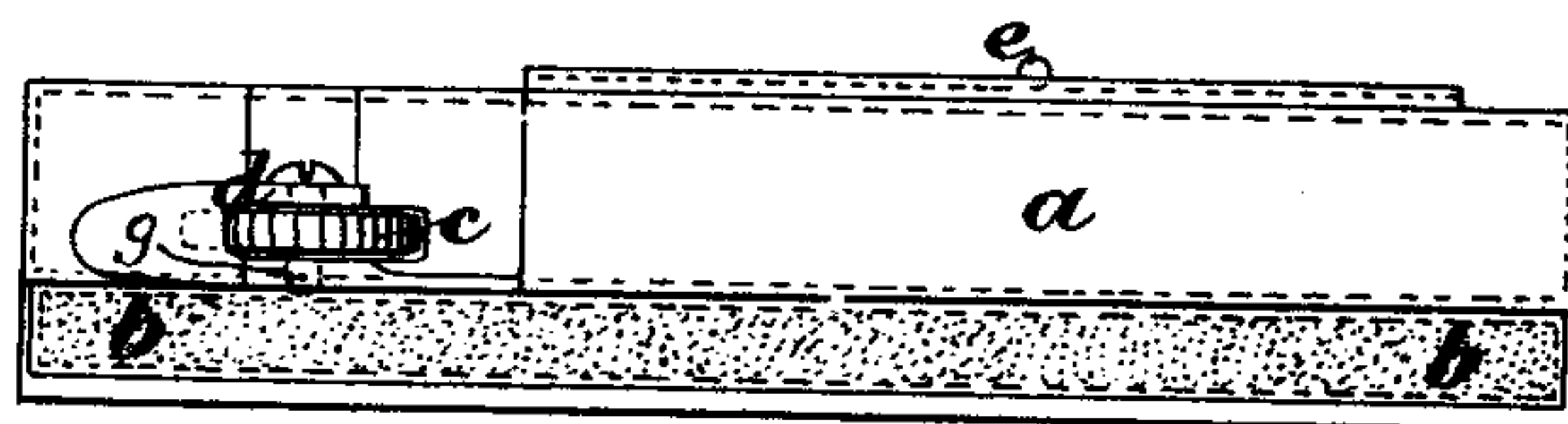


FIG: 6.



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Fig. 7.

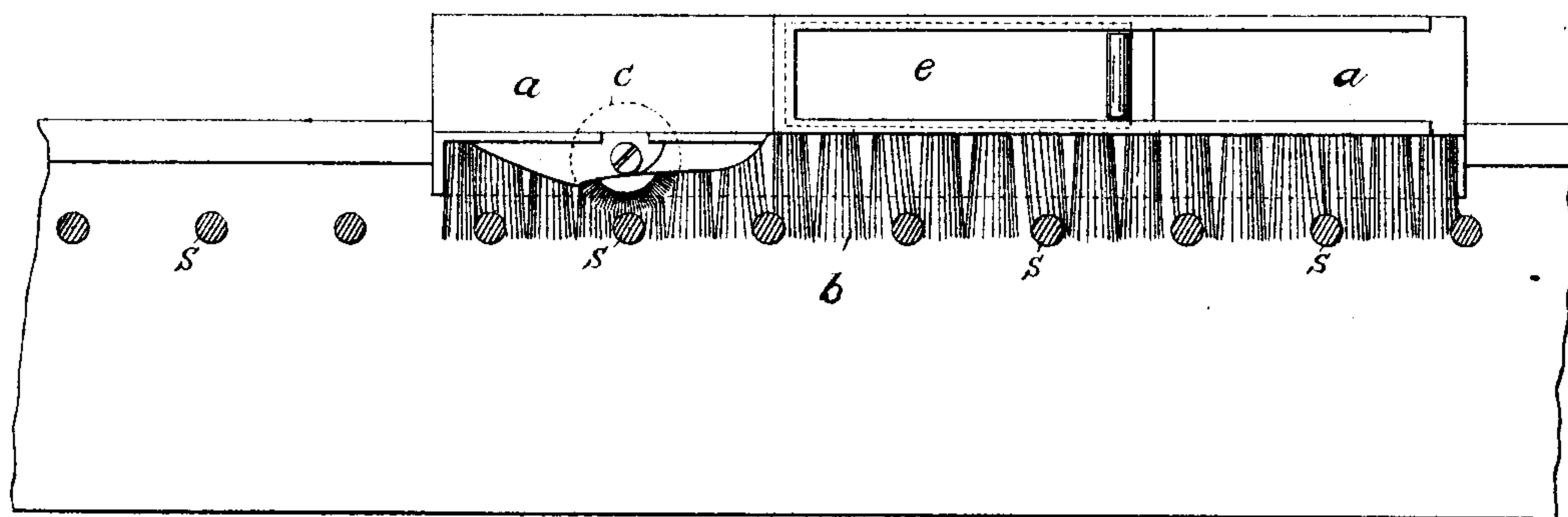
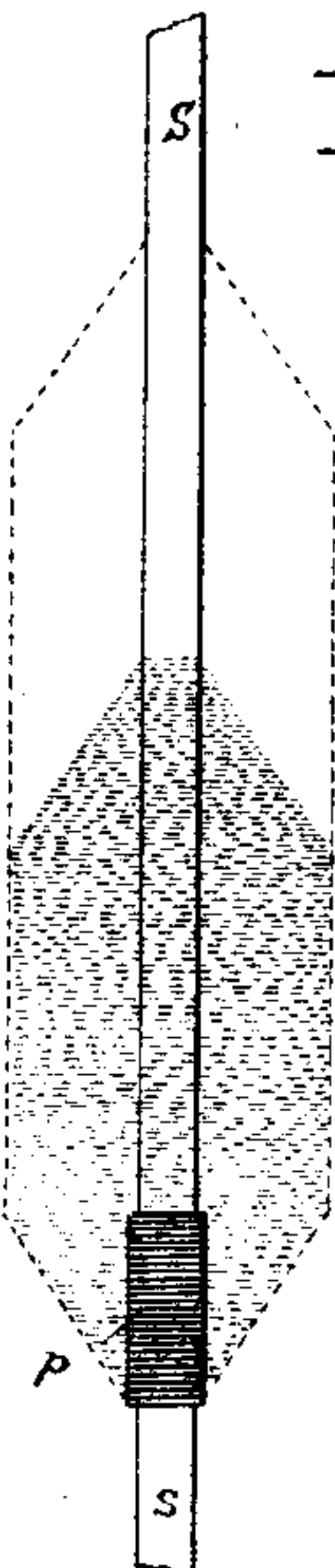


Fig. 8.



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UNITED STATES PATENT OFFICE.

WILLIAM COOPER, OF OLDHAM, AND JOHN CORDINGLEY, OF HOLLINGWOOD, COUNTY OF LANCASTER, ENGLAND.

DEVICE FOR PASTING COP-BOTTOMS ON SPINNING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 388,636, dated August 28, 1888.

Application filed April 19, 1887. Serial No. 235,352. (No model.) Patented in England August 23, 1886, No. 10,737, and in Germany April 20, 1887, No. 42,038.

To all whom it may concern:

Be it known that we, WILLIAM COOPER and JOHN CORDINGLEY, subjects of the Queen of Great Britain, residing, respectively, at Oldham and Hollingwood, both in the county of Lancaster, England, have invented an Improved Device for Pasting Cop-Bottoms on Spinning-Machines, (for which we have obtained a patent in Great Britain, No. 10,737, dated August 23, 1886, and German patent, No. 42,038, dated April 20, 1887,) of which the following is a specification.

Our invention relates to the paste-boxes employed for pasting cop-bottoms in machinery for spinning, the object of our invention being to apply the paste in a more efficient and economical manner than by the ordinary means.

In the accompanying drawings, Figure 1 is an elevation of our improved paste-box. Fig. 2 is a plan view, and Fig. 3 a cross section through about the line A B, Fig. 1, the brush, though cut away, being indicated by dotted lines. Fig. 4 is an elevation of a modification. Fig. 5 is an end view of the same. Fig. 6 is an elevation of another modification. Fig. 7 is a view showing the manner of applying the brush to cop-spindles. Fig. 8 is a diagram illustrating the manner in which the paste has been applied to form a cop-bottom.

Our improved pasting device comprises a long box, *a a*, as usual, for containing the paste, provided with a separate compartment or recess for holding the elongated brush *b b*. This compartment has no direct communication with the interior of the paste-box *a a*, and instead of the paste being allowed to flow directly onto the brush *b b* and be thereby spread onto the cop-bottoms, as in the paste-boxes of ordinary construction, we make the brush-compartment somewhat shorter than the paste-box *a a* itself. At the end of the brush-compartment we make the paste-compartment wider, so as to be flush with the outside of the brush-compartment, and in this extra width we mount a distributing roller or wheel, *c*, which is preferably milled on its edge, but which may be in the form of a circular brush, Fig. 8, and which in use revolves

by frictional contact with the cop-bottoms. The brush is run along the row of spindles *s*, Fig. 7, as soon as the first coils of yarn have been laid on them, and gives to each spindle and coil a coating of paste, so as to cause the threads of this coil (known as the "cop-bottom," as seen at *p* in the diagram, Fig. 8,) to adhere together. This takes the place of a paper tube inside the cop. This wheel *c* runs in the paste as it is drawn across the cop-bottoms and deposits thereon a sufficient quantity (and no more) of the paste, which is further spread by the brush *b* alongside as it follows the said distributing-wheel. The paste is prevented from overflowing or from being delivered in too great quantities from the open part of the paste-box by a guide-plate or guard, *d*, at either side of the distributing roller or wheel *c*, which plate *d* is slightly above the level of the rest of the paste-box cover and extends for a short distance, also, on each side of the spreading-brush *b*, so that any superfluous paste may be guided onto the brush *b*, and not allowed to fall upon the spindles or any other part of the machine.

When the paste-box is not in use, as the distributing-roller *c* does not revolve, no paste will escape from the box *a*, since the paste is too thick and the openings are small.

In the cover is a small opening provided, as usual, with a sliding lid, *e*, for recharging the paste-box when empty.

In the modification shown in Figs. 4 and 5 the distributing-wheel *c* is shown as arranged above the distributing-brush and the latter extended the whole length of the box. We have also shown in this modification an adjustable guard, *f*, for guiding the box along the front of the machine, where the construction of the latter permits. The adjustment of the guard *f* is provided for by the bolts *g* passing through slots *f'* in the bent ends of the guard, as shown in Fig. 5.

The modification shown in Fig. 6 is for applying the paste to spindles on a twisting-frame where the spindles run in the opposite direction, and accordingly the wheel *c* is at the opposite end of the paste-box from that shown

in Fig. 4, since the box has to be traversed over the spindles in a direction the opposite of that in which the box, Fig. 4, is traversed.

We claim as our invention—

- 5 A device for pasting cop-bottoms, comprising a box to contain the paste, a wheel to revolve partly in the paste in the box and partly out of the box, and an elongated spreading-brush alongside the wheel, substantially as described.
- 10 scribed.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

WILLIAM COOPER.
JOHN CORDINGLEY.

Witnesses:

CHARLES A. DAVIES,
JNO. HUGHES.