

(No Model.)

J. L. B. SIBLEY.

TORCH.

No. 362,905.

Patented May 10, 1887.

Fig. 1

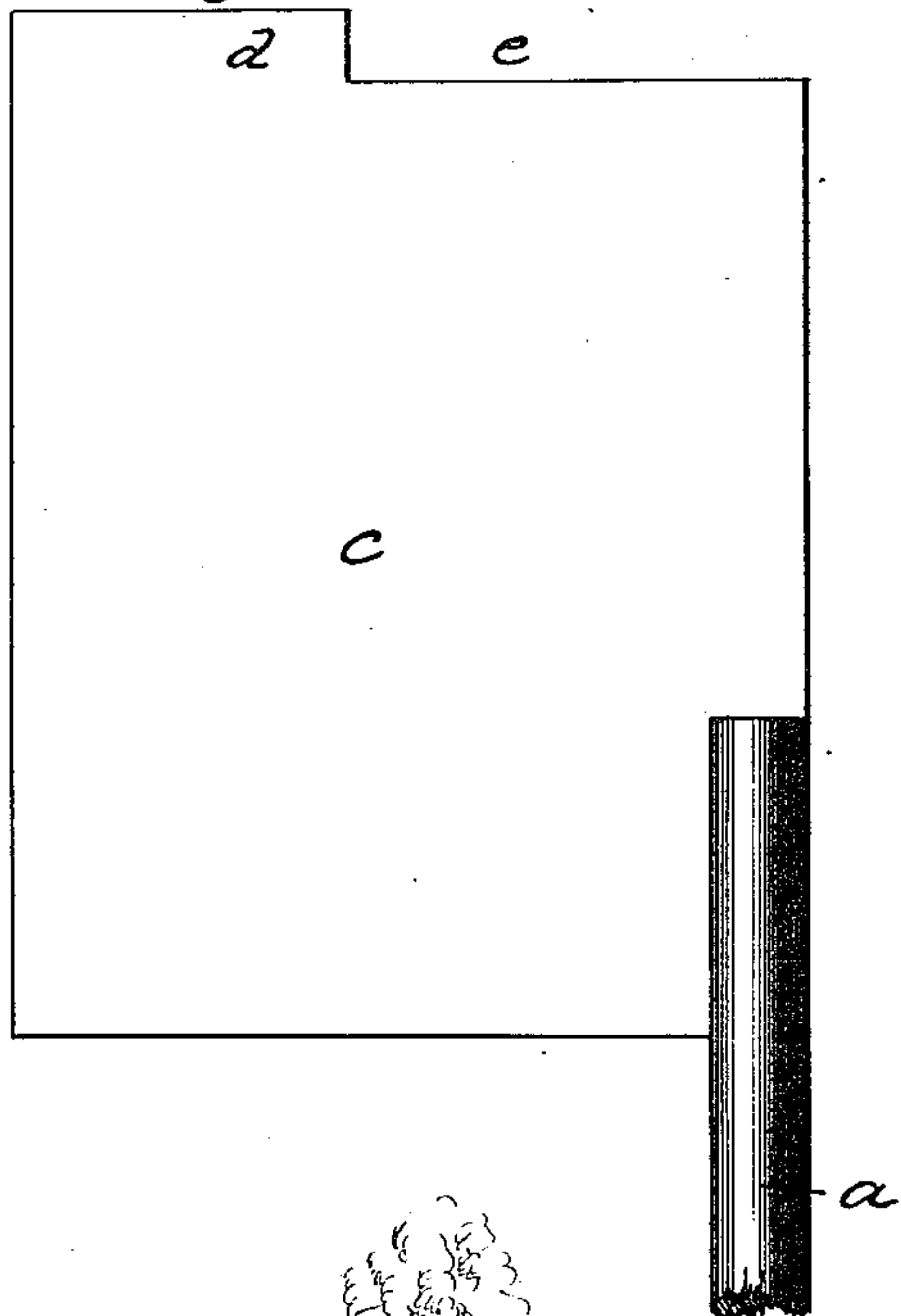


Fig. 2

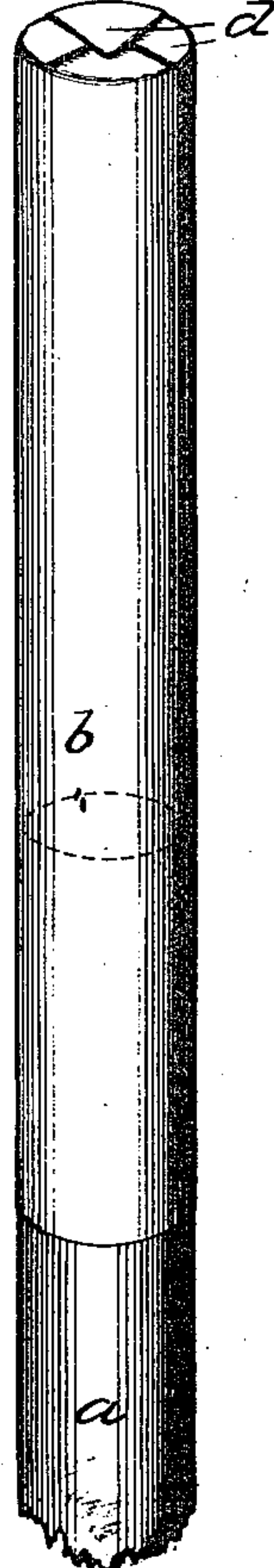
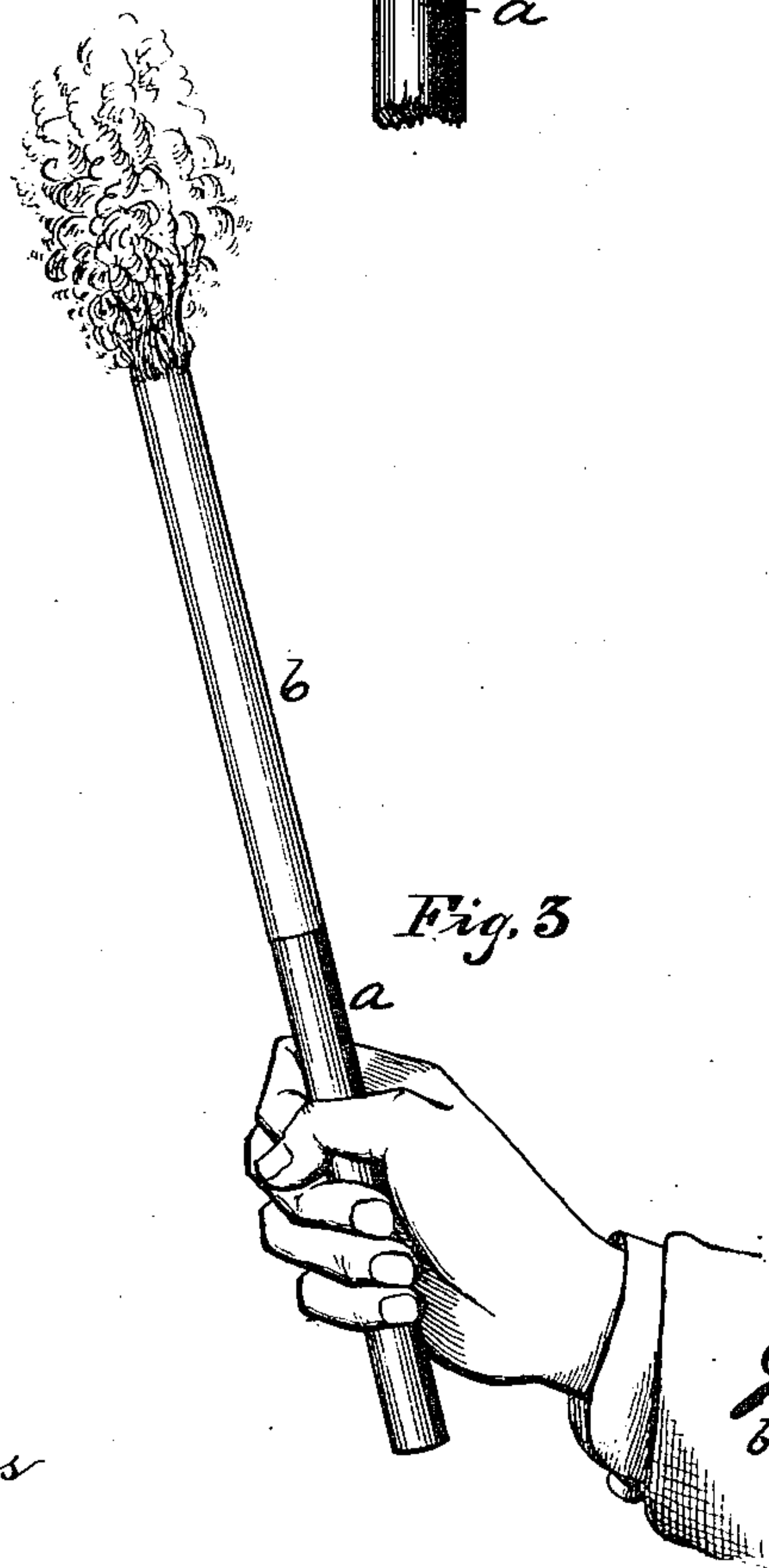


Fig. 3



Witnesses,
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UNITED STATES PATENT OFFICE.

JOHN L. B. SIBLEY, OF HARTFORD, CONNECTICUT, ASSIGNOR OF ONE-HALF
TO EDWARD C. FRISBIE, OF SAME PLACE.

TORCH.

SPECIFICATION forming part of Letters Patent No. 362,905, dated May 10, 1887.

Application filed September 14, 1885. Serial No. 176,990. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. B. SIBLEY, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and
5 useful Improvements in Torches, of which the following is a description, reference being had to the accompanying drawings, where—

Figure 1 is a plan view of the blank used in making the tubular body of my improved
10 torch. Fig. 2 is a detail perspective view of the torch on an enlarged scale. Fig. 3 is a view of my improved torch in use.

The object of my invention is to provide a cheap and convenient torch for use for pyro-
15 technic displays or for signaling; and my improvement consists of a torch having a handle, of any suitable material that is a non-conductor of heat, and a body made of a single sheet of paper rolled into tubular form, with
20 walls formed of the several layers of the sheet and a thin end formed of a single layer folded down to close the end, and fastened, as by glue or cement, as more particularly hereinafter described, and pointed out in the claim.

25 In the accompanying drawings, the letter *a* denotes the torch-handle, which is preferably made of wood and of any convenient size and length; *b*, the torch-body, that is formed into tubular shape to hold the combustible com-
30 pound with which the tube is filled. This body *b* is formed of a sheet of paper, or like thin and flexible material, that is first cut into the form of the blank *c*, as shown in Fig. 1, and then wrapped or rolled upon a suitable
35 core to form a tube, and the handle may form part of such core, the material being so covered with glue or paste as to hold it to the handle and in the tubular form when dry. There is thus formed a tube closed at one end,
40 where it is fastened to the handle, and this tube is filled with any suitable and well-known composition to make, when burning, a bright flame, usually of red or green color.

45 I am aware that torches have been heretofore made in which the tubular body does not burn away with the composition, and also that others have been made in which the tube is consumed. (See patent to Edge, No. 28,661, of June 12, 1860.) In each instance, how-

ever, the outer end of such tube has been closed 50
by a special cap or cover separate from and not integral with the main body of the tube. My attention has been called to the patent to J. R. Powell, of September 8, 1885, as show-
55 ing a wrapper for a fuse with an integral extension of less width than the body of the wrapper; but my improved torch has a wrapper of improved construction and for a different purpose, as compared with the squib-
60 cover of Powell; but the tube and cover of my improved torch are formed of one and the same piece, and this is effected by using a blank, *c*, of the following-described form; and I am also aware that torches have been made
65 of a wrapper of thin paper with an inner wrapper of tin-foil, the latter arranged to project above the paper portion of the case, to form, when bent inward, a water-proof covering for the composition in the torch, as shown in the
70 patent to Lilliendahl, No. 23,529. The blank is made of paper or like combustible material that is flexible, tough, and sufficiently impervious to hold the composition, cut preferably to a rectangular outline, with a project-
75 ing part, *d*, on the upper edge of the wrapper or blank. When the blank is rolled into tubular form, the walls are of a single thickness at the upper end and of several layers elsewhere;
80 and this thin wall is readily closed down upon the contents of the tube by folding it down on four sides in succession and pasting or gluing the folds together, as illustrated in Fig. 2.

The edge *e* of the blank forms a shoulder in the tube, that is used as a gage in filling, and also aids in closing the end of the tube, the
85 wall of which bends readily over the shoulder. By the use of this blank I am enabled to make a tube with walls that are rigid enough to protect and hold the filling and thin enough at the end to form a cover integral with the
90 body.

To use the torch the folds of the cover are torn open and lighted and the tube and contents burned.

I use wrappers on different torches of a 95
color that denotes the color of the flame produced in burning the torch, and this may be a single color or several in succession.

My improved torch is light, compact, and cheap in construction, and can be conveniently packed, carried, and used, owing to the peculiar method of its construction.

5 I claim as my invention—

In combination, in a torch, a non-conducting handle, *a*, a tubular body, *b*, made of the successive layers of the single paper blank *c*, with its integral projection *d* on the outside of

the mass folded down over the shoulder to formed by the edge *e* to close the end and fastened by glue, and the combustible filling, all substantially as described.

JOHN L. B. SIBLEY.

Witnesses:

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H. R. WILLIAMS.