

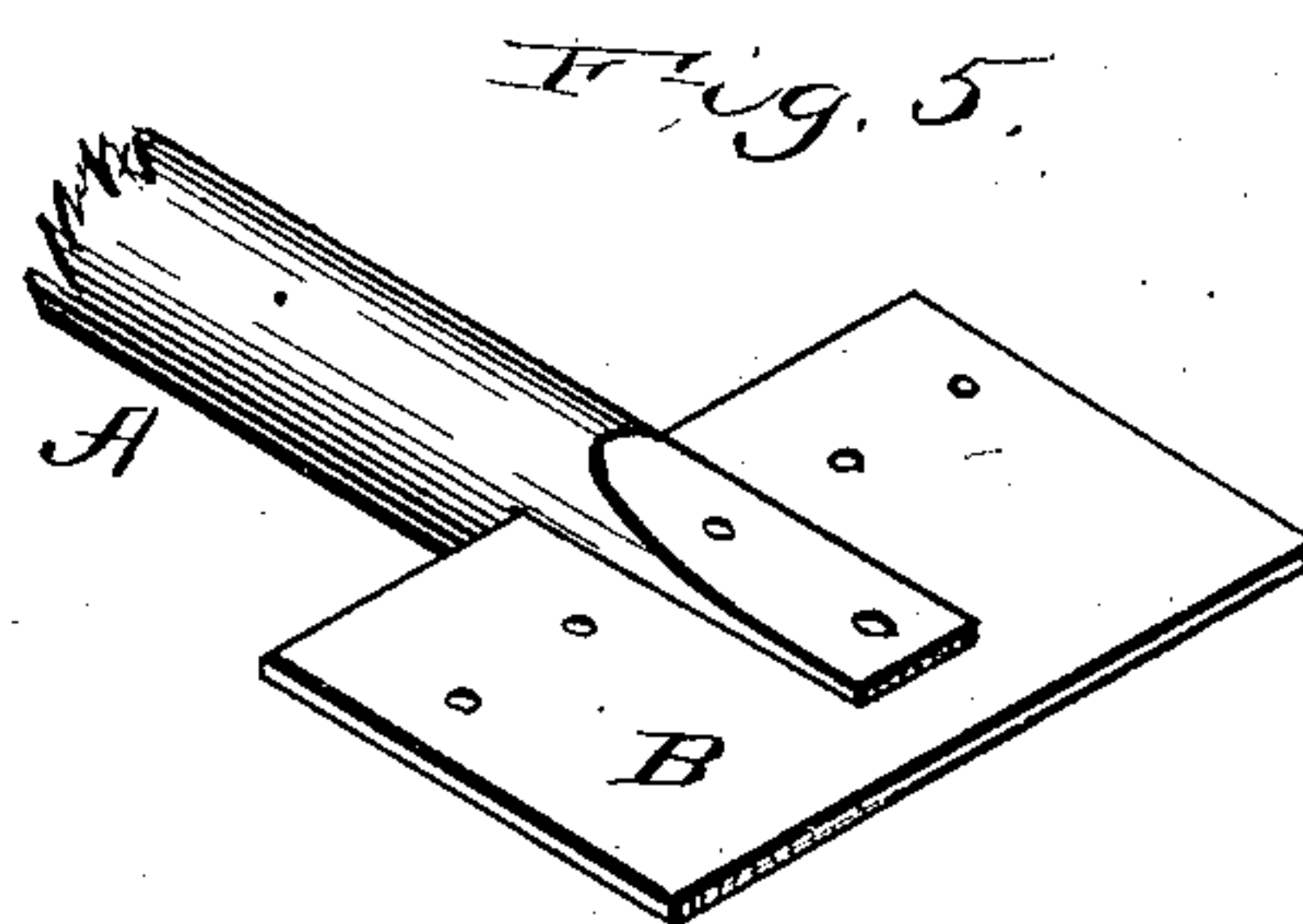
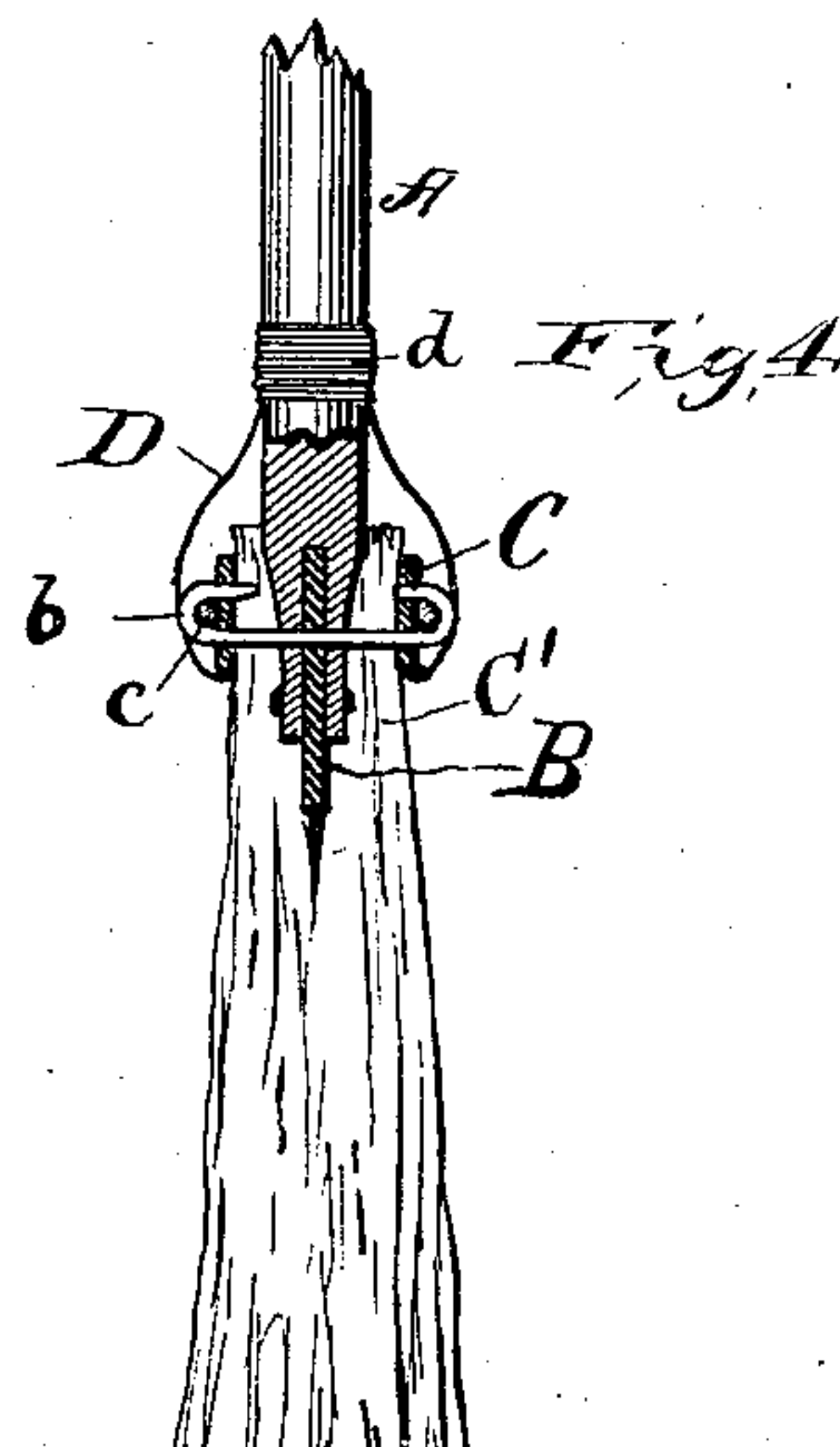
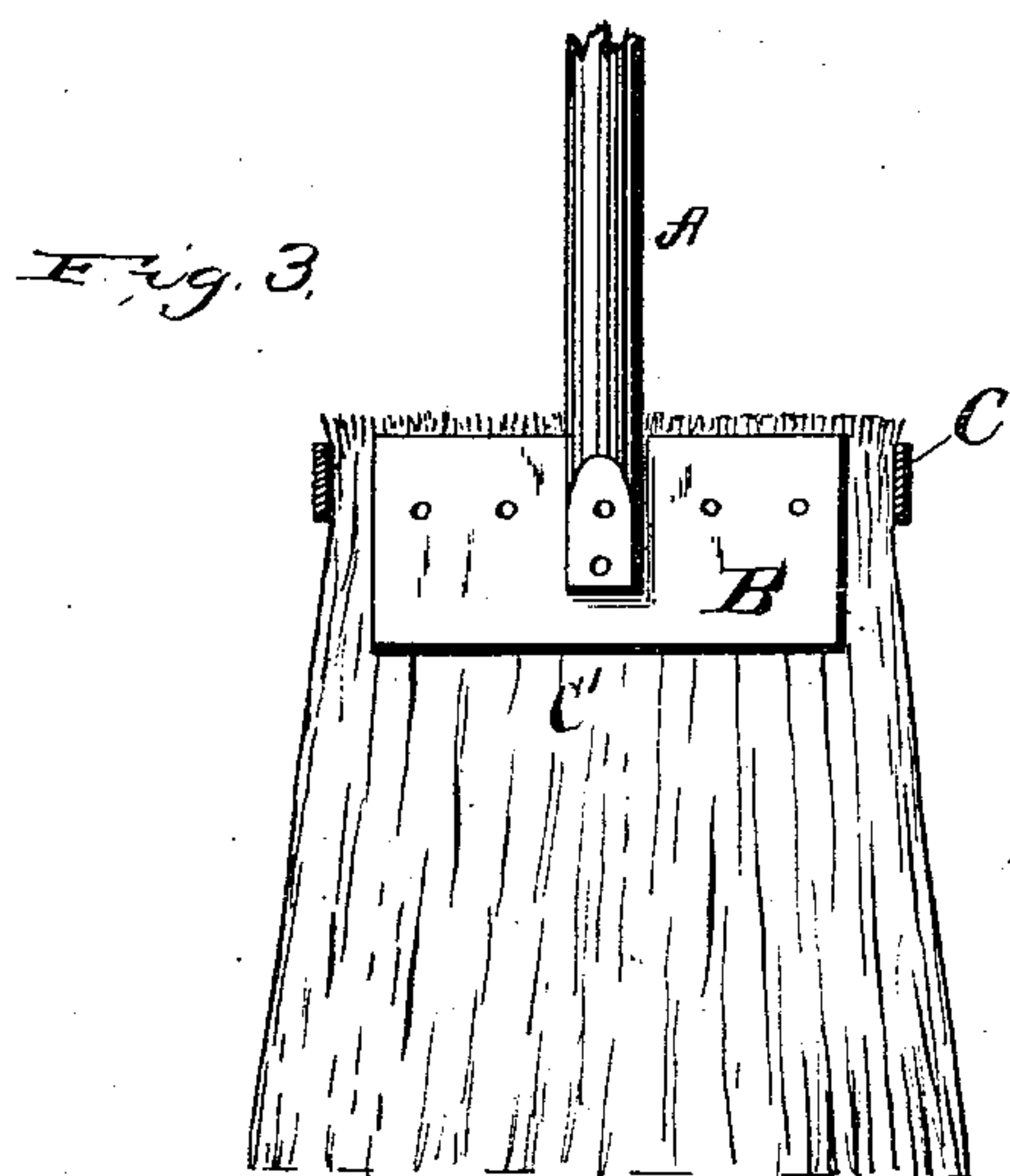
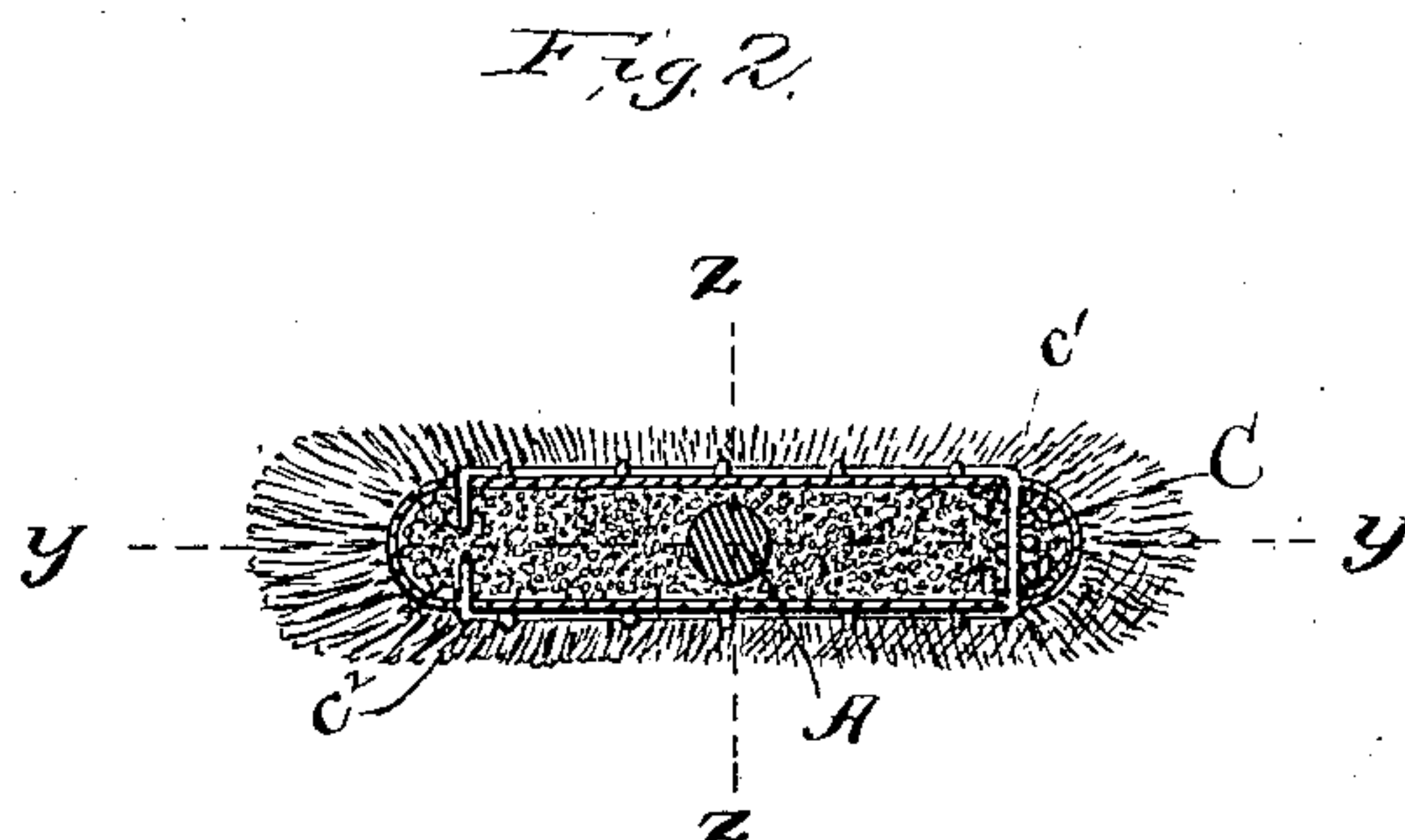
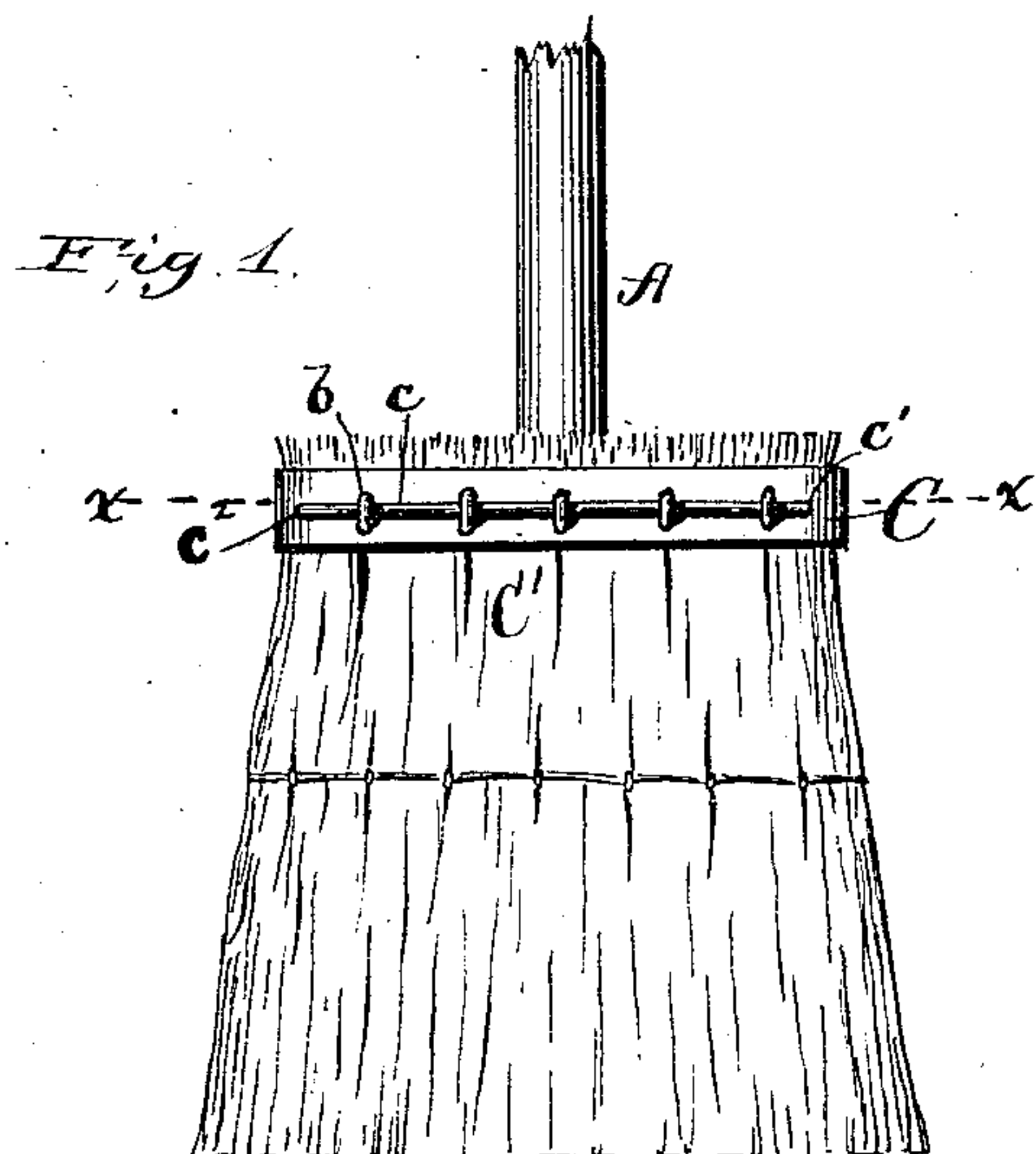
(No Model.)

A. STEPHEN.

BROOM.

No. 336,169.

Patented Feb. 16, 1886.



Witnesses:

Wm A. Rosubarry

H. A. Daniels

Inventor:

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How

UNITED STATES PATENT OFFICE.

ANDREW STEPHEN, OF CLINTON, IOWA.

BROOM.

SPECIFICATION forming part of Letters Patent No. 336,169, dated February 16, 1886.

Application filed April 3, 1885. Serial No. 161,123. (No model.)

To all whom it may concern:

Be it known that I, ANDREW STEPHEN, a citizen of the United States of America, residing at Clinton, in the county of Clinton and State of Iowa, have invented certain new and useful Improvements in Brooms and Brushes, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to the manufacture of brooms and brushes of broom-corn.

Brooms constructed in the usual manner are liable after a little use to become loose and to twist around on their handles.

The object of my invention is to remedy this defect, which I accomplish by the devices constructed and combined as hereinafter fully set forth and claimed.

Figure 1 is a side elevation. Fig. 2 is a cross-section on line *xx* of Fig. 1. Fig. 3 is a vertical section on line *yy* of Fig. 2. Fig. 4 is a vertical section on line *zz* of Fig. 2. Fig. 5 is a detailed perspective of the lower portion of the handle and the plate attached.

A designates the broom-handle, and B is a sheet-metal plate inserted in a central slot in the lower portion of the handle and securely riveted or otherwise fastened to it.

C is a sheet-metal band placed around the head C' of the broom and fastened by rivets *b*, which are inserted through the band and plate, as hereinafter more fully described, and as shown in the drawings. A wire, *c*, is inserted through holes in the band C at *c'*, and extended along the sides of the band, and its ends are bent and inserted inwardly through holes in the band at *c''*, as shown in Figs. 1 and 2 of the drawings. The ends of the rivets *b* are bent and clinched over the wire *c*, as shown in Figs. 1, 2, and 4 of the drawings.

D designates a covering of any suitable material, usually of oil-cloth, velvet, or other plain or figured fabrics, which covering is placed and fastened, by any suitable means, over the band C, wire *c*, and rivets *b*.

My present method of fastening the covering is to insert the lower edge of the covering under the lower edge of the band C, and extend the covering upward over the band, and bind it to the handle by a cord or wire, as shown at *d* in Fig. 4 of the drawings. This covering is used on the finished grade of brooms, and it may be dispensed with in the manufacture of brooms for common use.

My method of manufacturing these brooms is as follows: The broom-corn for each broom is accurately weighed. For an ordinary size broom, one pound of short and one-half of one pound of long finishing broom-corn is used. The short corn is placed and tied around a round handle. The longer corn is spread out on a string laid on a table, and is rolled and tied around the bundle of short corn. The band C is then placed around the bundle, the string is removed, and the bundle is placed in the press, with the upper end of the bundle projecting above the press. The bundle is then compressed into the flattened shape shown in Fig. 2 of the drawings. The upper portions of the broom-corn forming the broom-head are then cut off to the required length and shape, and a knife is forced downward through the center of the head on line *yy* of Fig. 2 to separate the corn to allow the handle and plate to be forced down to the position shown in Fig. 3 of the drawings. The rivets *b* are then inserted through the band and the plate, and the ends of the rivets are bent and clinched over the wire *c*, and for finished brooms the covering D is attached, as hereinbefore described.

By this method the broom-corn may be worked dry, and by accurately weighing the material for each broom waste is prevented, and the brooms are made a uniform size.

I am aware of the United States Patents Nos. 59,372, and 207,464, for improvements in brooms, and I do not claim the devices constructed and combined as shown in the said patents; but

What I claim as new, and desire to secure by Letters Patent, is—

The combination, with a broom handle and head, of the plate B, fastened to the handle and inserted in the head of the broom, the band C, placed around the broom-head, the wire *c*, extended through and along the sides of the band and having its ends bent inwardly and inserted through holes in the band, and the rivets *b*, inserted through the band and plate and having their ends bent and clinched over the wire *c*, substantially as and for the purpose described.

In testimony whereof I do hereto affix my signature in presence of two witnesses.

Witnesses: ANDREW STEPHEN.

W. W. SANBORN,

H. F. BOWERS.