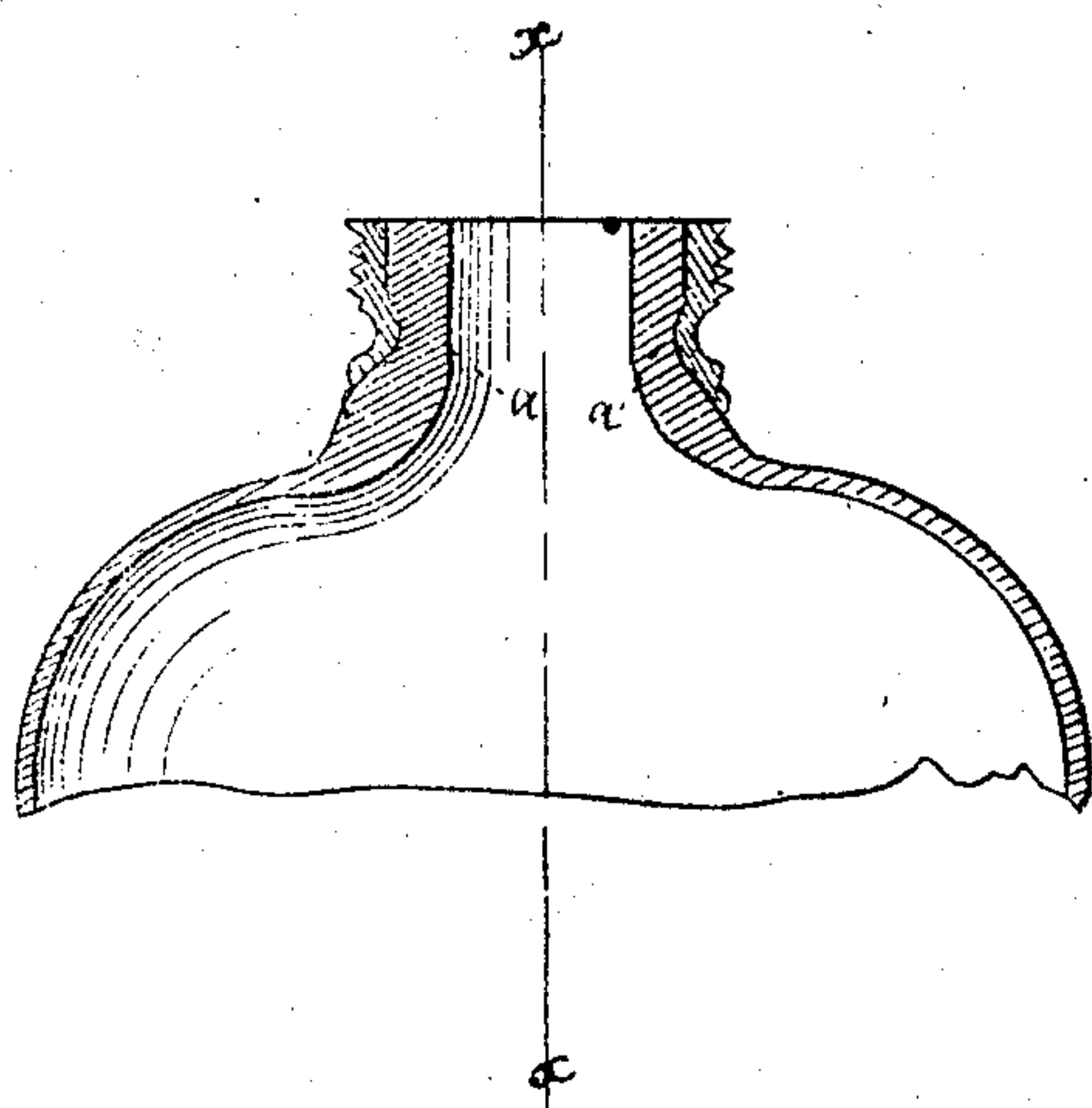


Edward Watts Jr. Fastening Metallic.

73680 Collars to Bottles.

Fig. 1

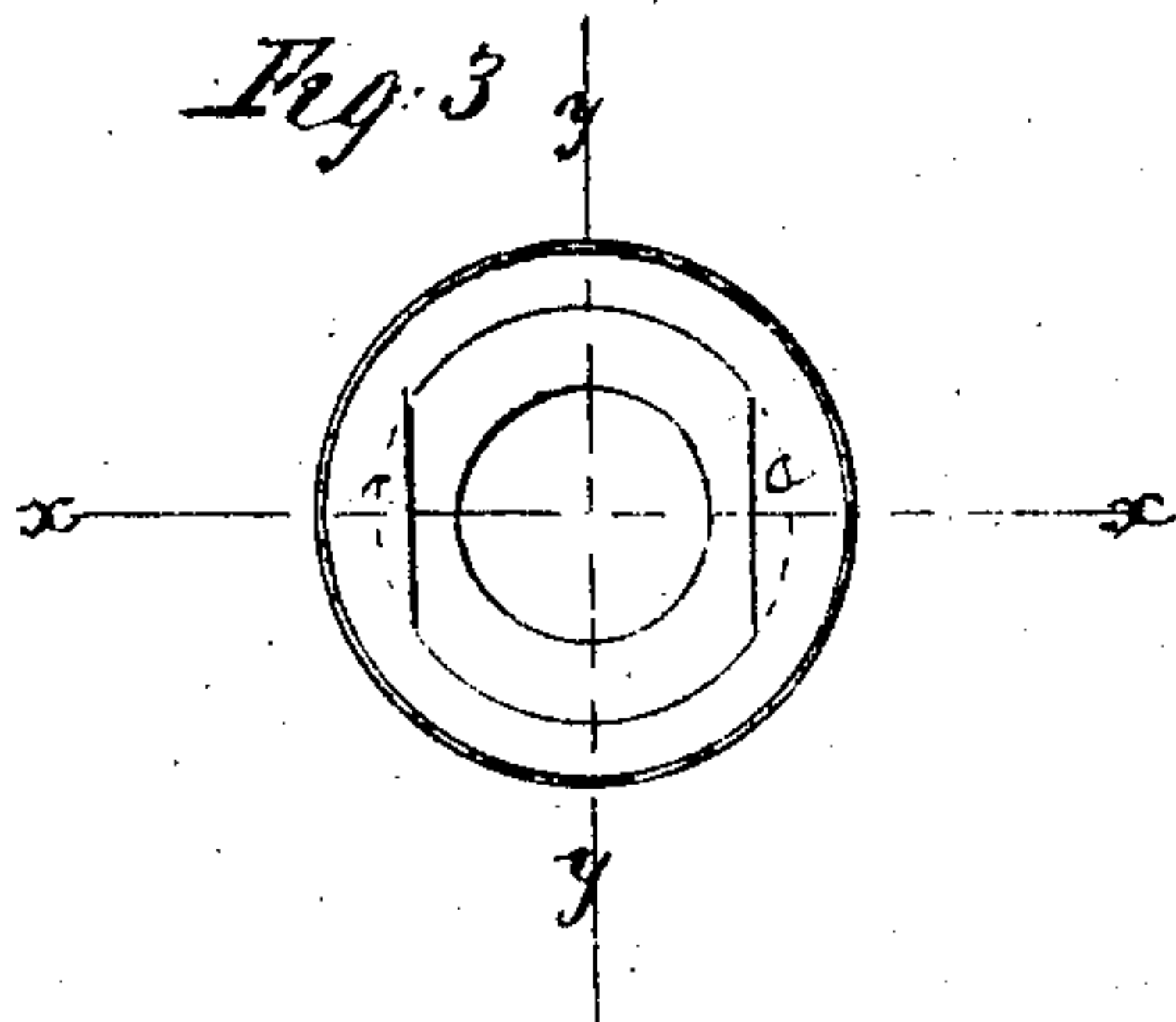


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Fig. 2



Fig. 3



witnesses.
Theo. Frosche
J. A. Lawrence

Inventor
Edw. Watts Jr.
Per *[Signature]*
Attorneys -

*The drawing in this patent
is not in print.*

United States Patent Office.

EDWARD WATTIS JR., OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 73,680, dated January 21, 1868.

IMPROVEMENT IN FASTENING METALLIC COLLARS TO BOTTLES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, EDWARD WATTIS, Jr., of Philadelphia, in the county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Fastening Metallic Collars on Bottles; and I do hereby declare that the following is a full, clear, and exact description thereof; which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to an improvement in the method of securing metallic collars to the necks of glass bottles or flasks, whereby the same are securely fastened without cement, and are rendered durable and firmly attached while the bottle lasts; and the invention consists in forming the neck of the flask or bottle with one or more grooves around it on the outside, and in spinning, compressing, or indenting the metallic collar into the groove, and also in forming angles or flat spaces on the lip or flange of the neck, and fitting the collar thereto, thus preventing the collar from turning on the neck, as will be hereinafter described.

Figure 1 represents a vertical section of the neck of a bottle with the metallic collar attached according to my plan, the section being through the line *y y* of fig. 3.

Figure 2 is a vertical section through *x x* of figs. 1 and 3.

Figure 3 is a top view of the neck of the bottle, with the collar attached, showing the flat spaces and angles. Similar letters of reference indicate corresponding parts.

As these collars have heretofore being attached to glass bottles, they are very liable to get loose and come off, as they have been fastened by cement, which is frequently dissolved or loosened by the liquid contained in the bottle. They are, moreover, liable to turn round in the act of screwing on the stopper, and thereby loosen the cement. In either case the bottle is rendered comparatively useless for the purpose intended.

For the purpose of overcoming this difficulty I form the neck with one or more grooves, as seen at *a* in the drawing, and with the lip or flange of the bottle with one or more flat sides, as seen in fig. 3 at *c c*, forming two or more angles, to which the collar is fitted, as seen in the drawing. This formation prevents the collar from turning round. When the neck of the bottle is thus formed with one or more grooves, the collar is slipped on it, and the bottle is rapidly revolved in a lathe, (it being held in a chuck at one end and properly supported at the other end,) when, with a tool of suitable shape, the metal of the collar is forced into the groove by a process called, by manufacturers of Britannia ware, "spinning." The contact of the tool under the speed given heats the metal which expands to the required shape.

I do not confine myself to the particular method described, as regards the groove or grooves around the neck of the bottle, as it is evident that the collar may, by the process described, be made to conform to the shape of the neck of the ordinary bottle, the lip or flange of which would hold the collar without any separate groove.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

1. Fastening the collars to the necks of bottles by spinning or expanding the metal beneath the projecting lips or flanges of bottles when the necks are not grooved, or by spinning the same into a groove or grooves in the neck, substantially as described.

2. Preventing the metallic collars of bottles from turning round by forming one or more flat sides on the lips or flanges, and fitting the collars thereto, substantially as described.

EDWARD WATTIS, Jr.

Witnesses:

EDWD. WATTIS, Sr.,

OWEN S. SHELDRAKE.