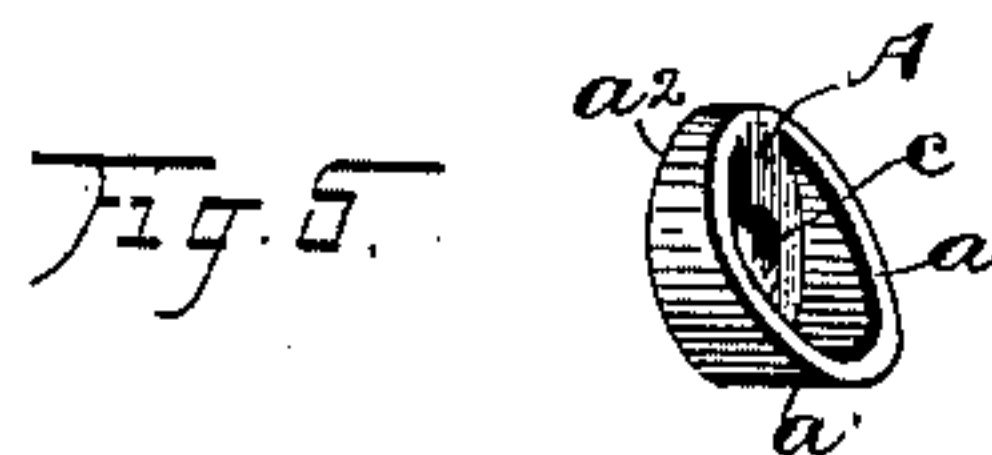
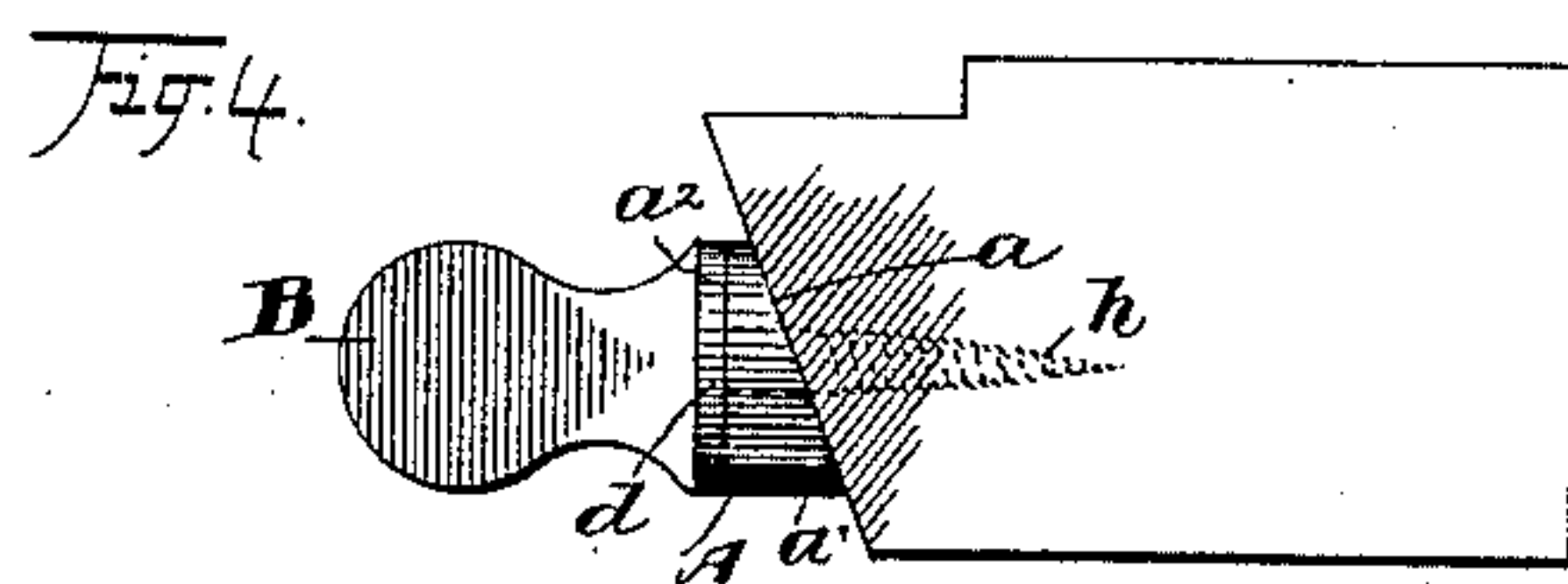
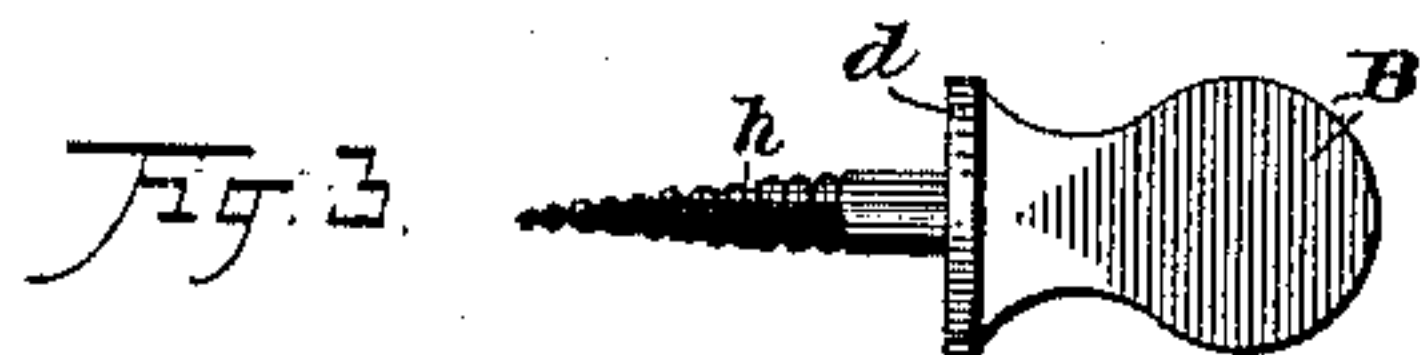
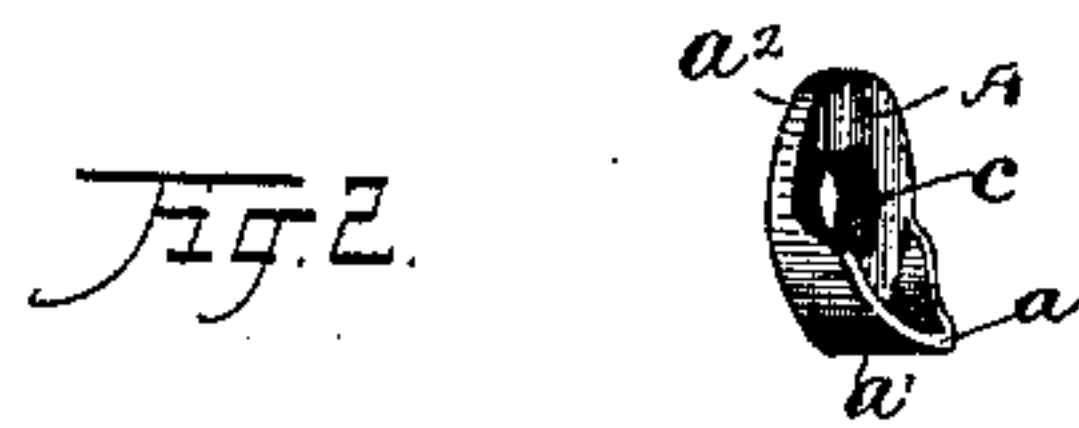
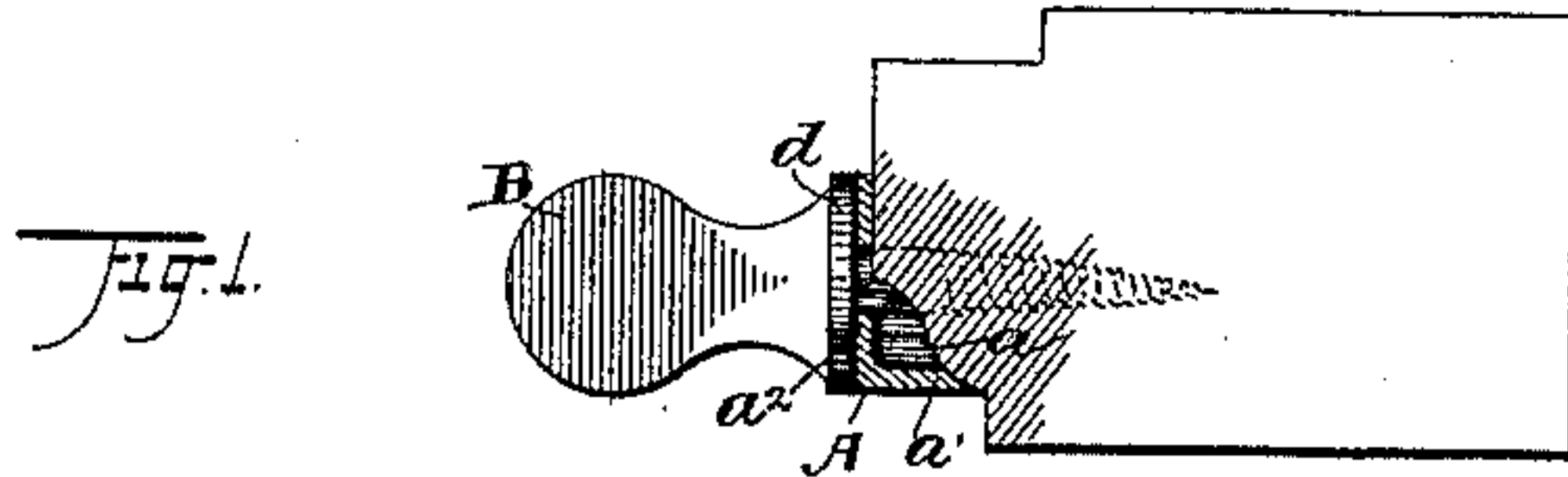


(No Model.)

G. HASENPFLUG.
SASH LIFT.

No. 409,582.

Patented Aug. 20, 1889.



WITNESSES,

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SASH-LIFT.

SPECIFICATION forming part of Letters Patent No. 409,582, dated August 20, 1889.

Application filed February 7, 1889. Serial No. 298,961. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HASENPFLUG, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Sash-Lifts; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in sash-lifts; and it consists of a lifting device composed of two separate and distinct parts, one of which is constructed to fit upon the beveled or inclined edge of the sash, and at the same time provide a seat upon its outer surface substantially at right angles to the window-glass, and the other part having a screw to secure the parts to the sash, and a handle portion to raise and lift the sash, all as hereinafter more fully described.

Referring to the drawings, Figure 1 is a cross-section of a window-sash showing my improved lift in position, the sash-edge having the ogee form. Fig. 2 is a separate view of the base of the lift as used in Fig. 1, showing its bottom or under side. Fig. 3 is a side elevation of the finger-piece and screw separate. Fig. 4 shows a section of sash with a plain beveled edge and a lift fastened thereon having a plain bevel on the base to match the sash. Fig. 5 is a perspective view showing the bottom of the base used in Fig. 4.

A is the base of the lift. This base is formed as a separate and distinct member, and is designed to have its under side *a* fashioned to adapt it to the form of the inner edge of the window-sash, whatever that form may be. The prevailing forms are either the ogee form, as seen in Fig. 1, or the plain bevel seen in Fig. 4. If other forms were common, the base could be constructed to conform thereto. To this end the said base A is formed with an annular portion having a flat even top or face *a*², and a depending portion *a'* at an inclination or angle to the said face, either partly across the base, as seen in Fig. 2, or wholly across the base, as seen in Fig. 5, and adapted in any sense to the formation of the

edge of the sash to which it is attached. The object of this construction is to so fit a lift to the sash that the finger-piece shall stand out substantially at right angles to the sash-face or the window-glass.

I have shown two forms of base, one adapted to each of the forms of sash-edges shown. These bases are not solid throughout, but have their under side or apron *a'* formed in a narrow rim or edging flush on the outside with the annular portion and hollow inside. This construction enables the base to be forced more or less into the wood by means of the tightening-screw if it does conform exactly to the shape of the sash, and thus make a close fit, which could not be done if the base were solid.

B is the finger-piece provided with a screw *b* cast therein and adapted to pass through the central opening *c* in the base and into the sash. The finger-piece has a collar *d*, with a flat surface adapted to fit upon and match the flat face *a*² of the base, and the two have the appearance of being solid when they are in position on the sash.

The form of the finger-piece or the portion that is handled is not very material, provided it be so constructed as to be convenient and effective as a means of forcing the screw into the sash. I deem it a matter of value in this lifting device that the finger-piece itself serves as a screw-driver, so to speak, in securing the device to a sash, thus avoiding the need of special tools to fasten or unfasten it. It is assumed that if the finger portion answers this purpose well it will be in proper form to raise and lower the sash either by hand or by a pole and hook.

The finger-piece as an article of manufacture and sale is adaptable to either of the forms of base shown, and several different forms of base other than those shown might be made and kept in stock, ready to meet any demand, while the same finger-piece will serve for all.

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

In a sash-lift consisting of two distinct

parts, a base having a depending portion the
bearing surface of which is at an angle to
the upper surface of said base, and an open-
ing through its center, in combination with
5 a finger-piece adapted to fit the upper sur-
face of the base, and provided with a screw
which passes through the opening in the base

to secure the parts to the sash, substantially
as set forth.

GEORGE HASENPFLUG.

Witnesses:

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