

(No Model.)

H. N. MIDDLETON.  
EXHAUSTER HOOD.

No. 587,370.

Patented Aug. 3, 1897.

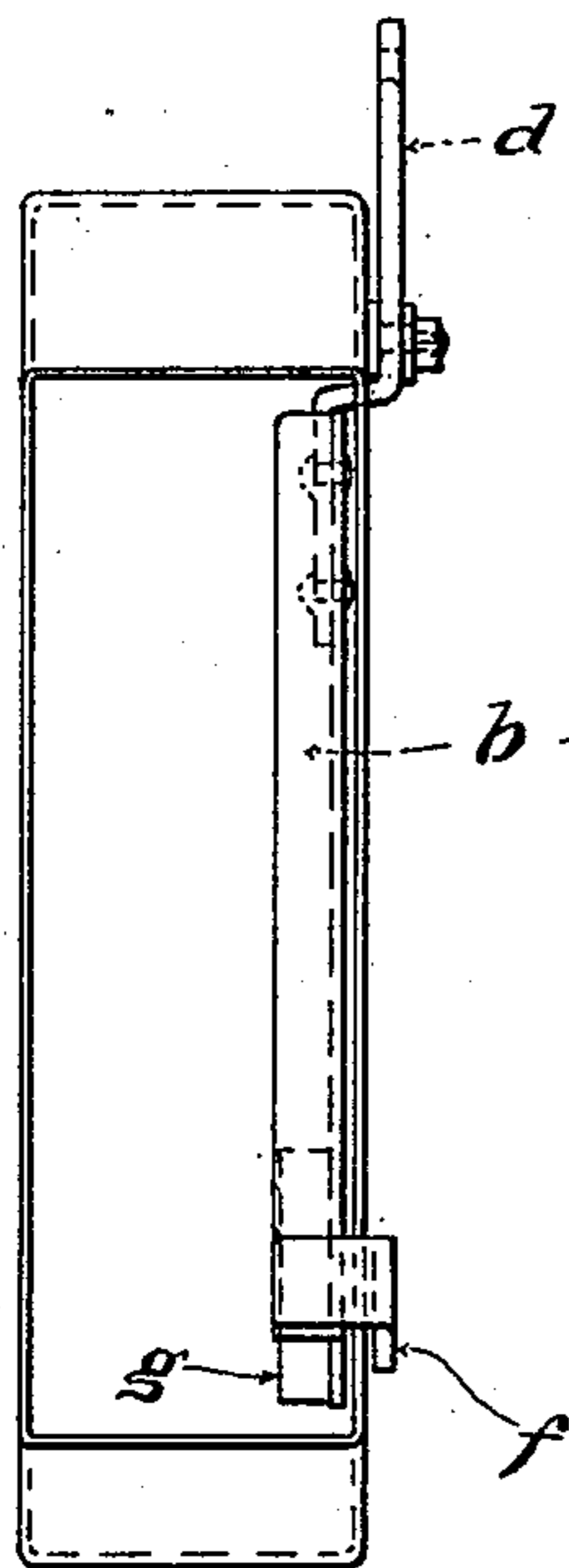


Fig. 2

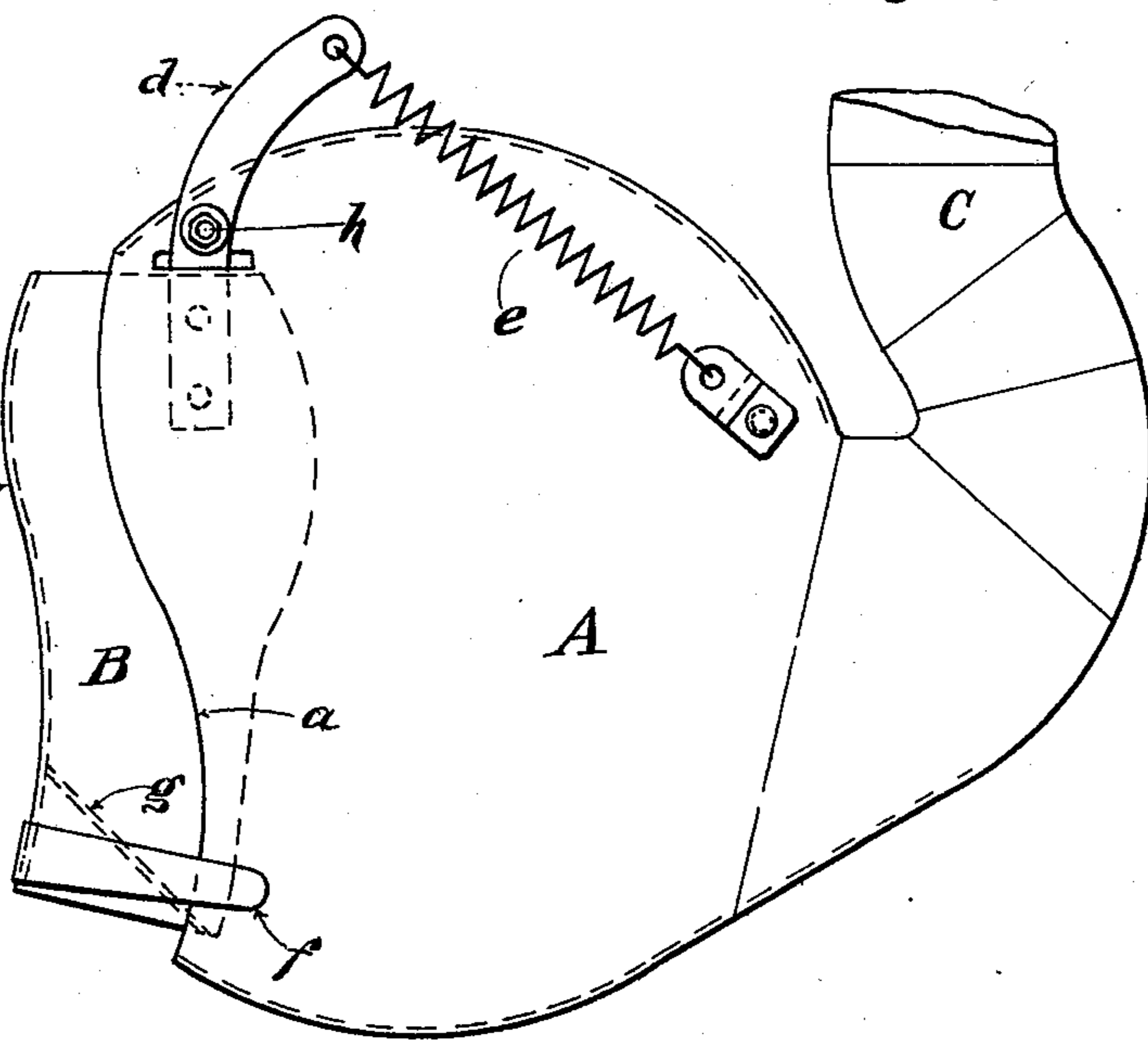


Fig. 1.

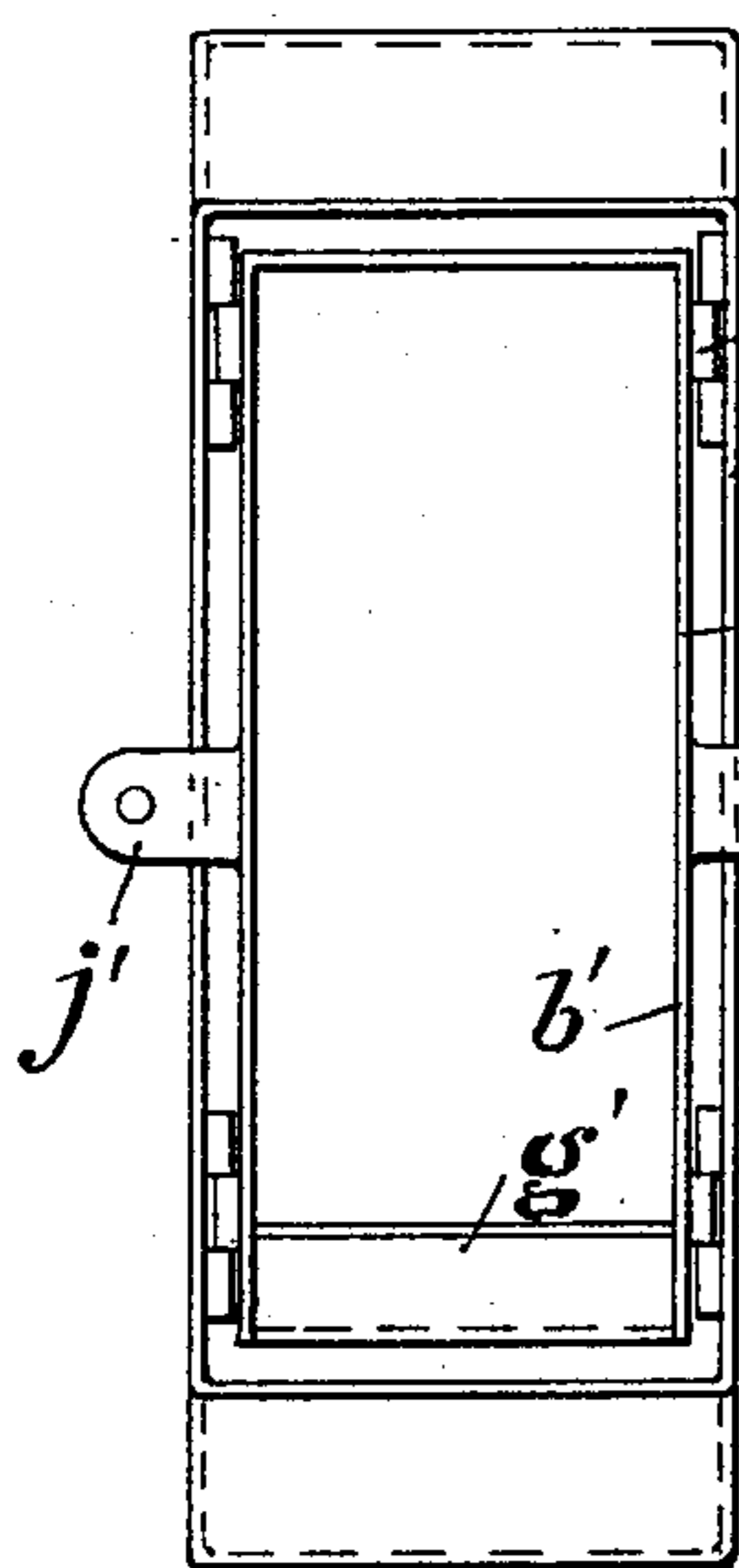


Fig. 4.

Witnesses:  
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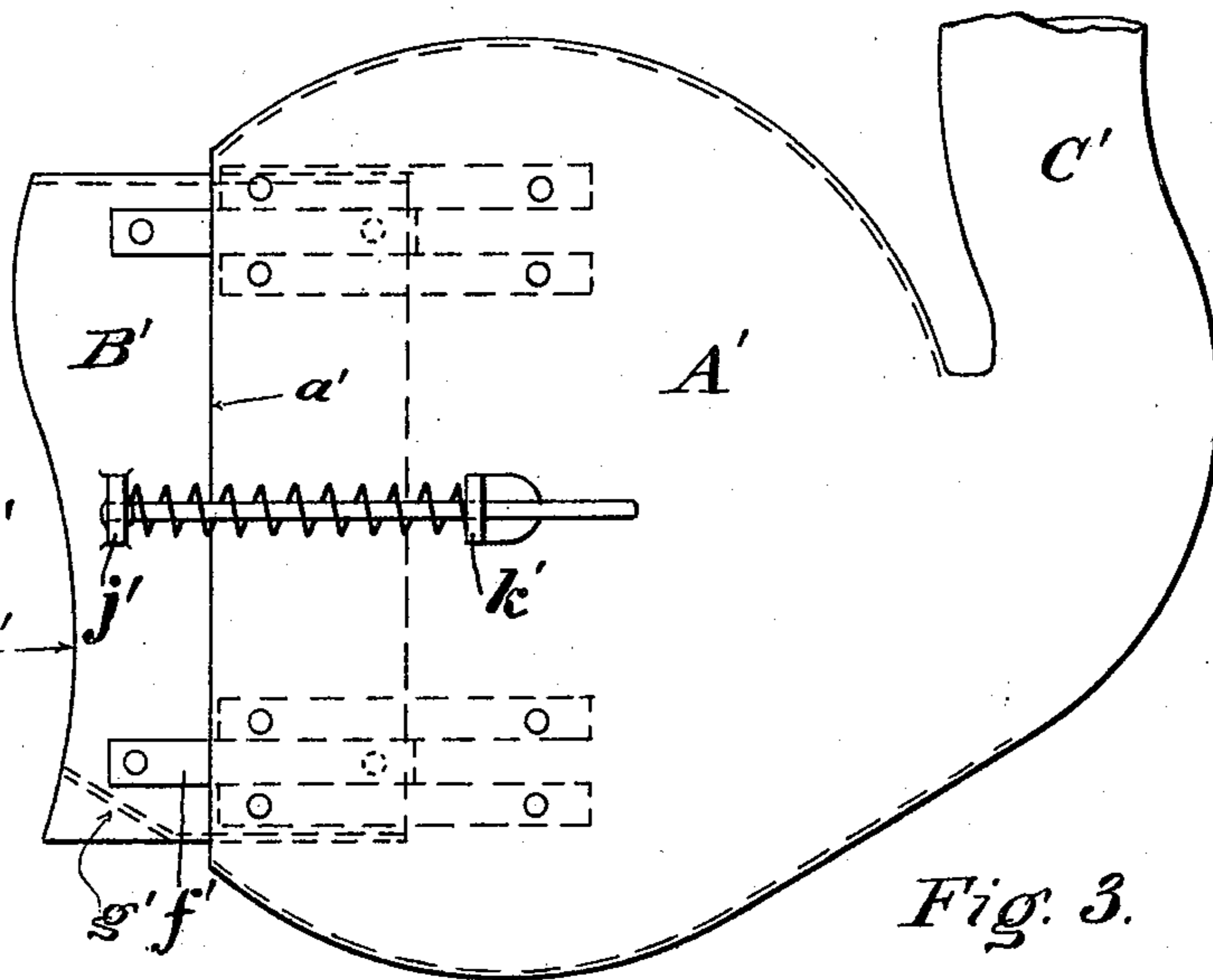


Fig. 3.

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# UNITED STATES PATENT OFFICE.

HARRY N. MIDDLETON, OF PHILADELPHIA, PENNSYLVANIA.

## EXHAUSTER-HOOD.

SPECIFICATION forming part of Letters Patent No. 587,370, dated August 3, 1897.

Application filed December 11, 1896. Serial No. 615,399. (No model.)

*To all whom it may concern:*

Be it known that I, HARRY N. MIDDLETON, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Exhauster-Hoods, of which the following is a specification.

My invention relates to an improvement in hoods such as are usually made of sheet metal and employed, in conjunction with an air-suction system, for removing sawdust, shavings, &c., thrown off by woodworking machinery.

My invention will be fully understood by referring to Figures 1 and 2 of accompanying drawings, which represent, respectively, a side and an end elevation, Figs. 3 and 4 being a modification of the same idea.

Referring to Figs. 1 and 2, (which represent the preferred form,) A is a hood of ordinary type with its suction-pipe C. Such a hood is usually placed on a wood-turning lathe so that the open face or mouth *a* comes as near as may be to the revolving piece which is being formed by the cutters or knives (not shown) in front of it, and the purpose of such a hood is to catch and draw into it the shavings or dust given off by the cutting; but it is found that in certain classes of work—such as making shoe-lasts, spokes, &c., for example—the shavings will not all be collected by the hood. My improvement seeks to overcome this difficulty and make the hood more perfectly operative by an attachment B, which is in the nature of a self-acting slide, operating in the mouth of the hood in such manner as that the face *b* (which is usually of some curved form) is kept up in close contact with the surface of the revolving shoe-last, spoke, &c., and so practically renders the hood automatically compressible and extensible to meet the varying distances of the changeable contour of the work operated upon. It will be seen that in the design referred to, Figs. 1 and 2, this is accomplished by hanging the single wall-slide B in the mouth of the hood A by the attached hanger-arm *d*, which is pivoted to a side wall of the hood at *h*. The spring *e*, engaging the upper

end of the hanger-arm, acts to throw the slide B forward about its pivoted point *h*. The guide *f*, attached to lower part of slide B, prevents it from being swayed laterally. The inclined ledge *g* acts as a deflecting-plate to catch and direct those shavings which are thrown off in a downward direction and might not otherwise be sucked into the hood.

In Figs. 3 and 4, (which show the modified form,) A' is the hood, with suction-pipe C', and B' the slide, with its curved contact edges *b'* and inclined ledge *g'* corresponding practically with similar parts in Figs. 1 and 2 and having the same functions. It will be noticed, however, that in Fig. 4 I show two side walls to the slide B' instead of one, as in Fig. 2. Whether made with one or two is optional, as in some uses the shavings may be thrown off always in one direction and require only the one wall to intercept them, while in other cases they may be thrown off either right or left.

In Figs. 3 and 4 the slide B' is shown as supported by guides *f'* entirely, instead of hung from pivoted points, as in Figs. 1 and 2, while the springs *e'* are confined in compression between the lugs *j' k'*, attached to the slide B' and the hood A'.

It is evident that either of the above forms could be modified slightly and still perform a similar resulting function. I therefore do not limit myself to constructing my device exactly as shown.

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

A suction-hood having a movable mouth-piece attachment consisting of one or more side plates, an inclined deflecting-plate, hanger or slides for suspending and guide or guides for controlling the movement of same, together with tension spring or springs acting to throw said attachment outward from the mouth of hood; substantially as and for the purpose described.

HARRY N. MIDDLETON.

Witnesses:

HENRY I. SNELL,  
C. H. GIFFORD.