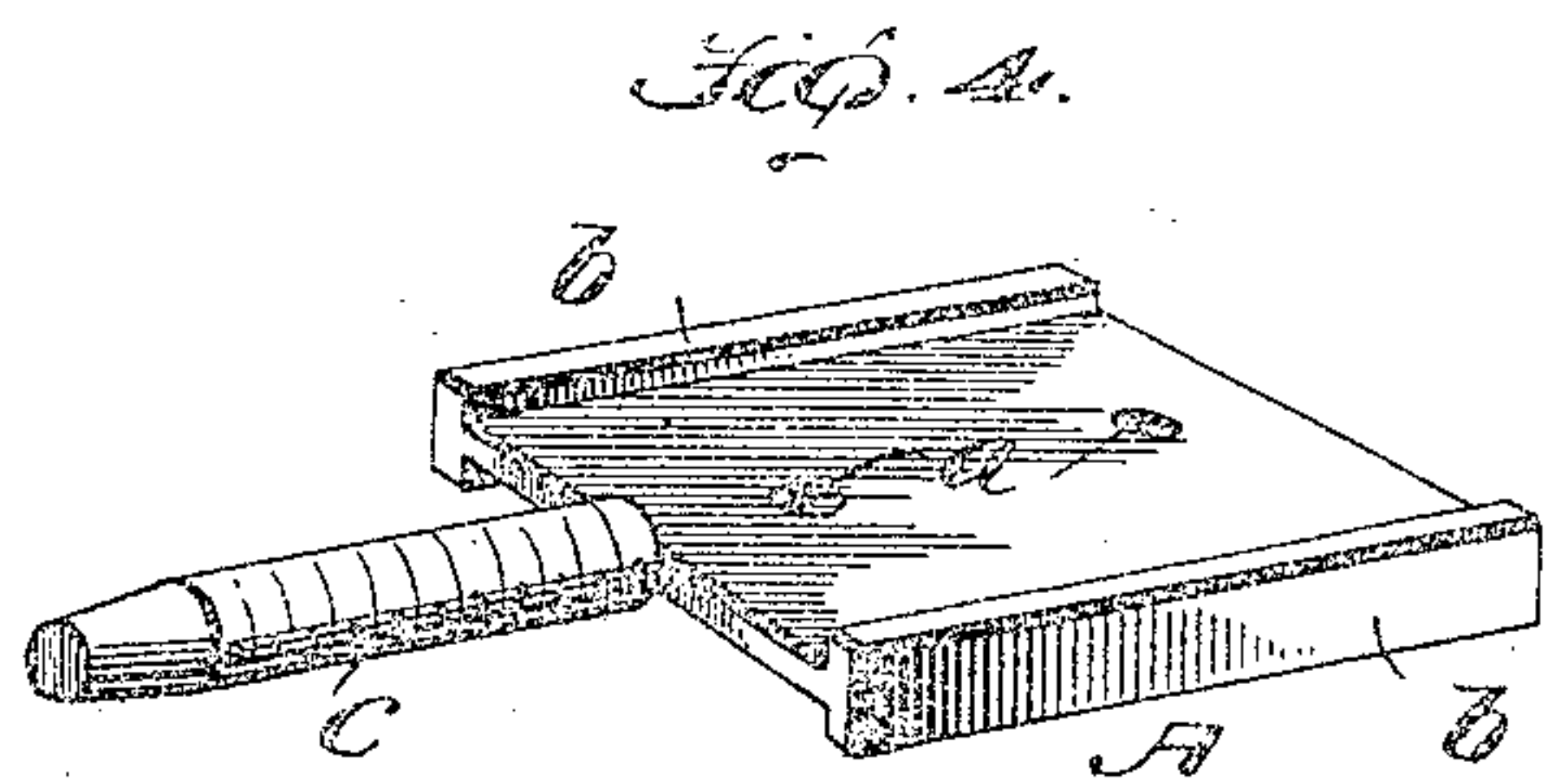
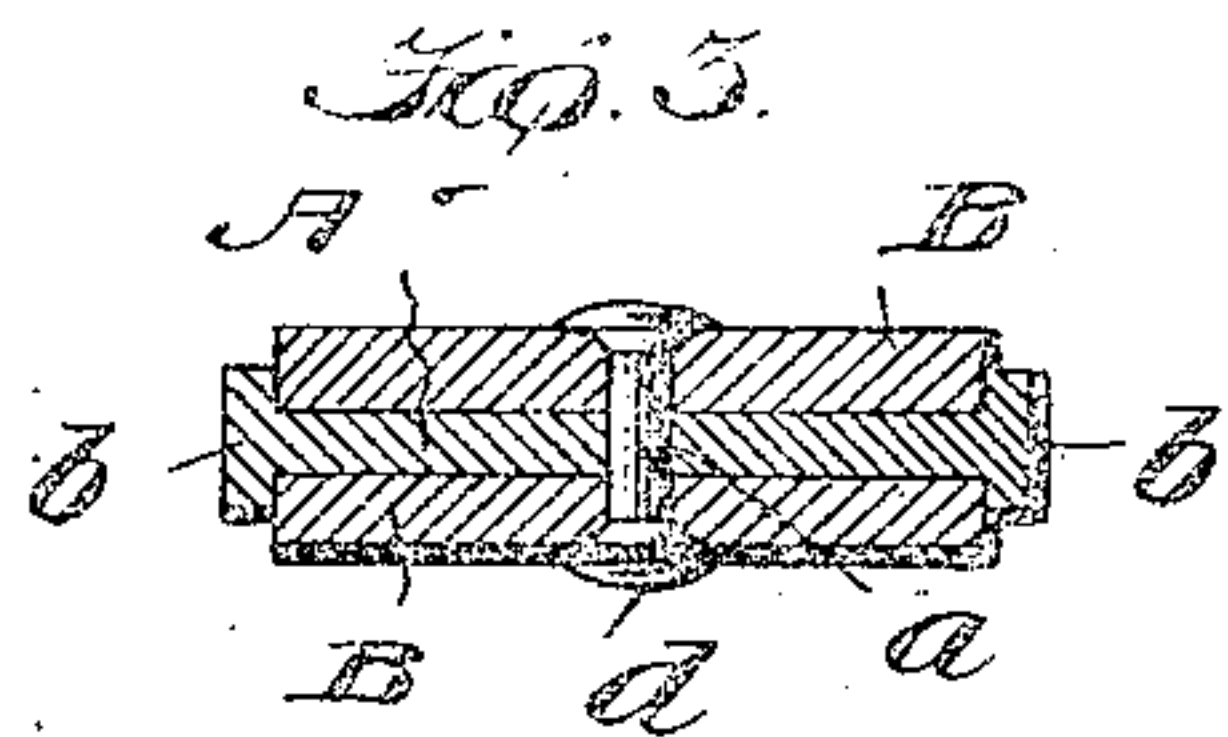
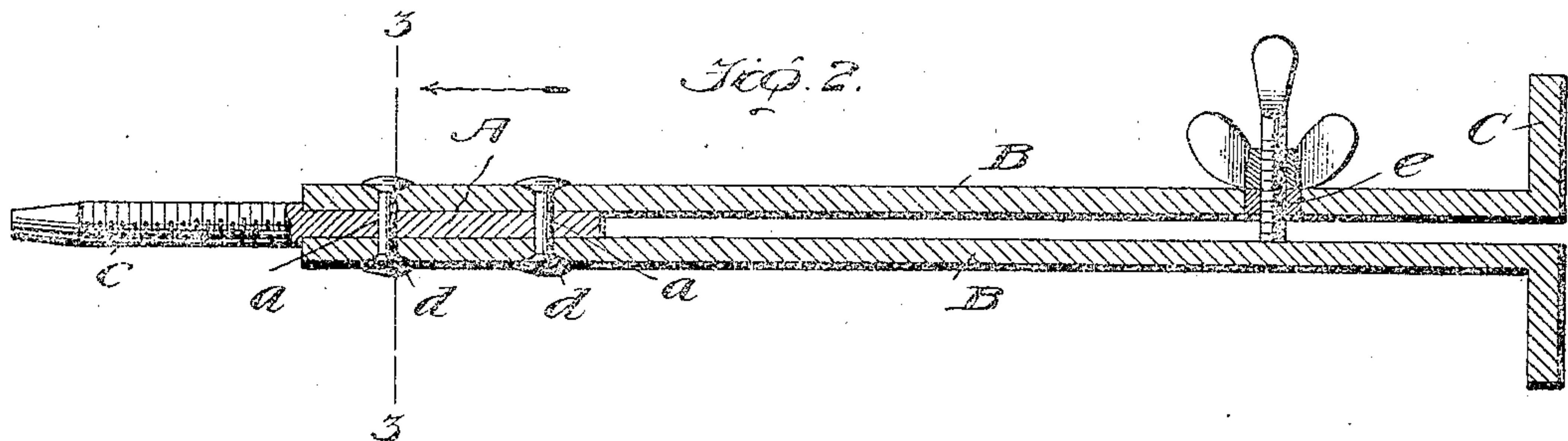
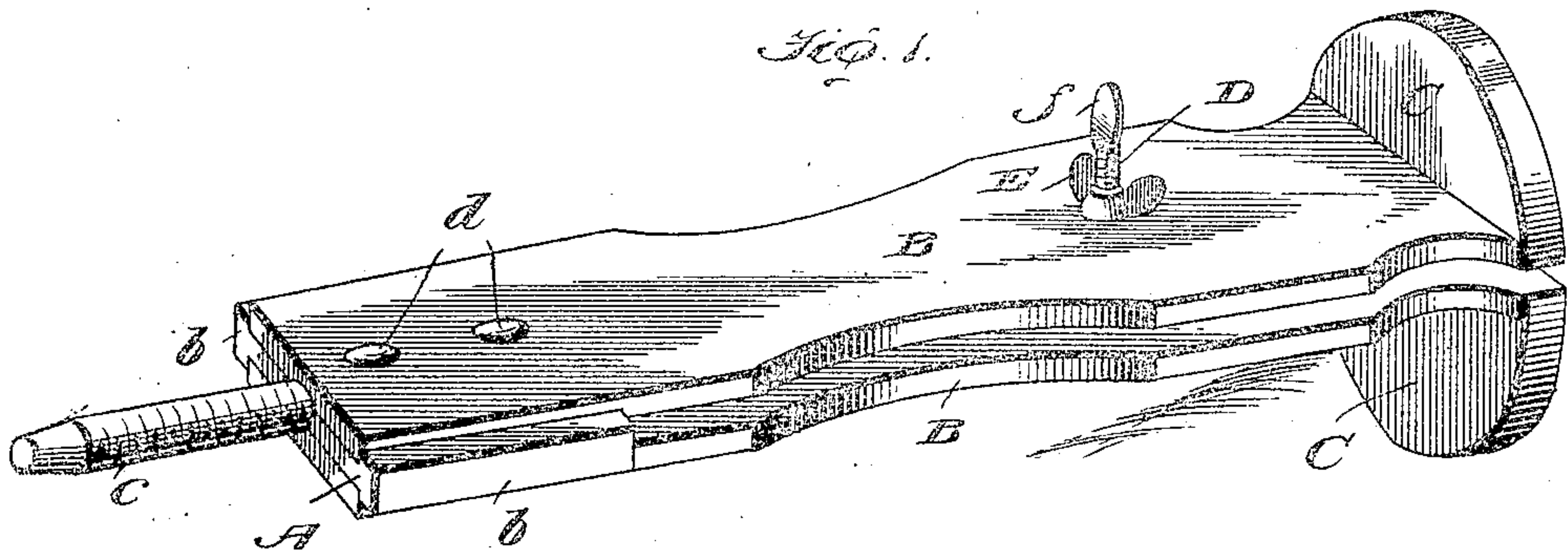


No. 843,976.

PATENTED FEB. 12, 1907.

J. P. THOMPSON.
BOILER FLUE CLEANER.
APPLICATION FILED APR. 12, 1906.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES P. THOMPSON, OF HAGAN, GEORGIA.

BOILER-FLUE CLEANER.

No. 843,976.

Specification of Letters Patent,

Patented Feb. 12, 1907.

Application filed April 12, 1906. Serial No. 311,350.

To all whom it may concern:

Be it known that I, JAMES P. THOMPSON, a citizen of the United States, residing at Hagan, in the county of Tattnall and State of Georgia, have invented new and useful Improvements in Boiler-Flue Cleaners, of which the following is a specification.

My invention pertains to boiler-flue cleaners; and it contemplates the provision of a simple and durable boiler-flue cleaner and one which may be adjusted with facility in order to enable its scraping portions to work to the best advantage in the flue that is to be cleaned.

With the foregoing in mind the invention will be fully understood from the following description and claims when the same are read in connection with the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of the boiler-flue cleaner constituting the present and preferred embodiment of my invention. Fig. 2 is a longitudinal central section of the same. Fig. 3 is a transverse section taken in the plane indicated by the line 3 3 of Fig. 2, and Fig. 4 is a detail perspective view of the stock of the cleaner removed.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which—

A is the stock of my novel boiler-flue cleaner. The said stock is preferably of cast-iron and is provided with apertures *a* and longitudinal edge flanges *b* and is also provided with a rearwardly-extending threaded stem *c*, the latter being for the connection of an appropriate handle, which I have deemed it unnecessary to illustrate.

B B are the blades of the cleaner, which are formed of steel and are therefore possessed of resiliency for a purpose which will presently be understood. The said blades B are disposed at opposite sides of the stock A and between the flanges *b*, whereby they are held against movement in the direction of the width of the stock, and they are connected to the stock, preferably through the medium of rivets *d*. (Best shown in Figs. 2 and 3.) At their forward ends the said blades B are provided with angularly-disposed scraping portions C, the outer edges of which describe parts of a circle, as will be apparent by reference to Fig. 1.

D is an adjusting-screw bearing in a threaded aperture *e* in one of the blades B and having a head or finger-piece *f* at its outer end, and E is a locking-nut, preferably of the wing type, mounted on the screw D and designed to be set against the outer side of that blade B in which the screw D bears, as shown. At its inner end the screw D bears against the inner side of the other blade B, and hence it will be understood that when the nut E is turned outwardly or away from the blade B adjacent thereto and the screw D is turned inwardly the scraping portions C will be moved away from each other and adapted to be used to the best advantage in a flue of comparatively large diameter.

It will also be understood that when after the adjustment of the screw D the nut E is turned up against the adjacent blade B the screw D will be securely locked, with a view of precluding casual turning of the same and the casual movement of the scraping portion C, which would attend casual turning of the screw.

It will further be understood that the resilient blades B tend to rest in and return to the positions shown in Fig. 2 relative to each other, and from this it follows that when the screw D is turned outwardly in the aperture *e* the blades B will move toward each other and in that way adapt the scraping portions C for use in a flue of comparatively small diameter.

In virtue of the construction of my novel flue-cleaner the blades are adapted to be detached from the stock, and consequently in case of wear the blades can be hammered out in a short time, after which they may be again connected to the stock and used in the manner described. Moreover, when the blades are worn beyond repair new blades may be substituted for the same, and in this way the usefulness of the cleaner as a whole may be prolonged for an indefinite period.

The longitudinal edge flanges *b* on the stock A constitute important features of my invention, inasmuch as they serve to preclude movement of the blades B in the direction of the width of the stock and in that way remove strain from the rivet connection between the blades and the stock and lessen the liability of the blades being casually disconnected from the stock while the cleaner is being used in a boiler-flue.

I have specifically described the construction and relative arrangement of parts embraced in the present and preferred embodiment of my invention in order to impart a definite understanding of the said embodiment. I do not desire, however, to be understood as confining myself to the said specific construction and relative arrangement of parts, as such changes or modifications may be made in practice as fairly fall within the scope of my claimed invention.

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

The herein-described boiler-flue cleaner consisting essentially of a flat stock of greater width than thickness having longitudinal flanges extending laterally in opposite directions from its side edges, resilient blades arranged against opposite sides of the intermediate portion of the stock and occupying the spaces between the flanges of the stock and having blades at their forward ends ex-

tending outward at right angles to their main portions; one of said blades also having a threaded aperture at an intermediate point of its length, means extending through one of the blades, the intermediate portion of the stock and the other blade in the order named and connecting the blades to the stock, a screw bearing in the threaded aperture of one blade and arranged with its inner end against the inner side of the other blade and having its outer end flattened to form a finger-piece, and a wing-nut mounted on the said screw between the outer side of the blade in which the screw bears and the outer flat end of the screw.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JAMES P. THOMPSON.

Witnesses:

W. B. WALLACE,
S. A. ROGERS.