

No. 615,249.

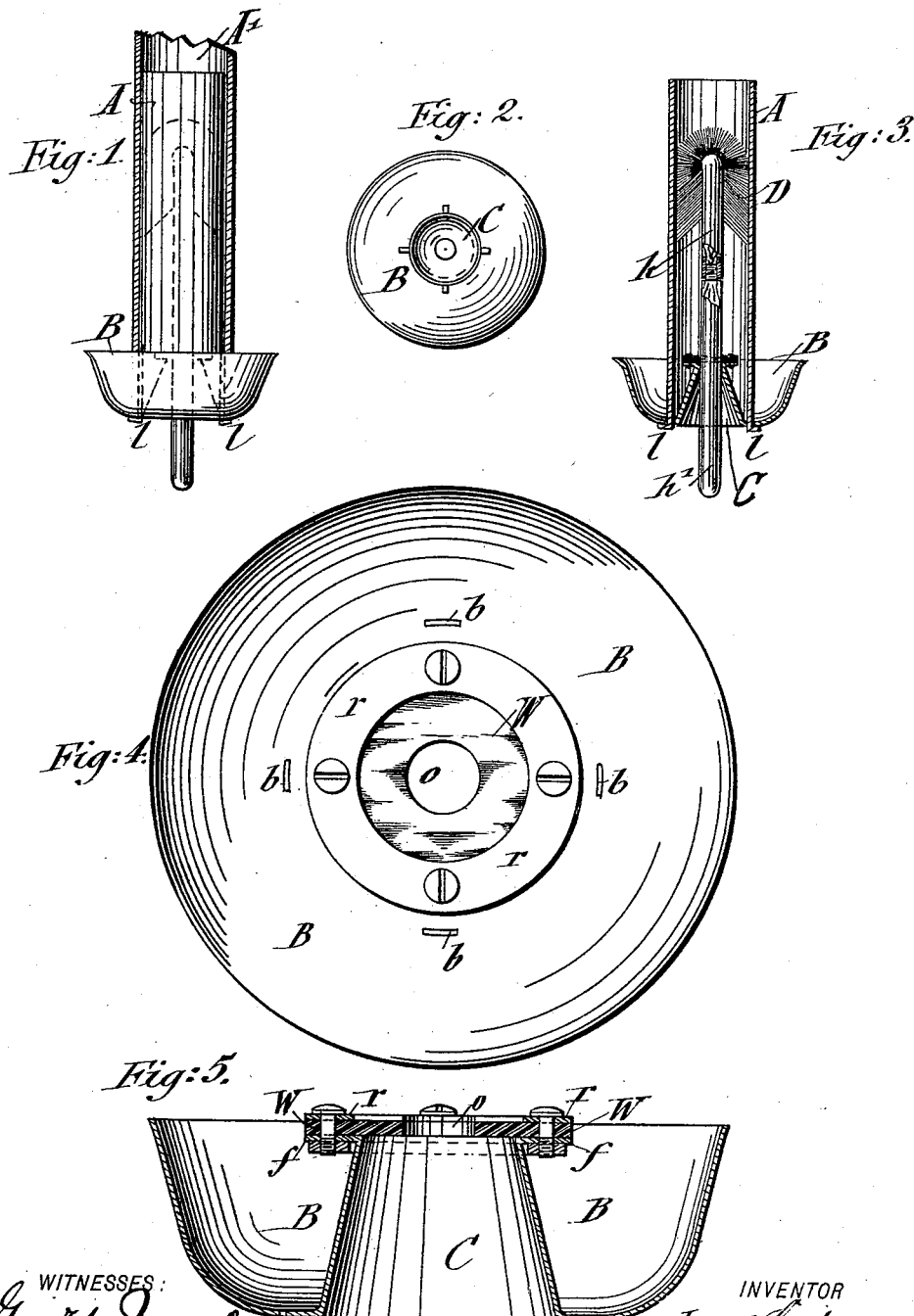
J. CATHRINER.

Patented Dec. 6, 1898.

FLUE CLEANER.

(Application filed Mar. 17, 1898.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

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## FLUE-CLEANER.

SPECIFICATION forming part of Letters Patent No. 615,249, dated December 6, 1898.

Application filed March 17, 1898. Serial No. 674,165. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH CATHRINER, a citizen of the United States, residing at Brenham, in the county of Washington and State of Texas, have invented certain new and useful Improvements in Flue-Cleaners, of which the following is a specification.

This invention relates to improvements in flue-cleaners for cleaning the flues of stoves, fireplaces, &c.; and the object of the invention is to provide a convenient and effective flue-cleaner in the use of which little dust or soot escapes and by which flues of any length may be cleaned with equal facility.

The invention consists of a flue-cleaner comprising a cylinder, a bowl or cup attached to the lower end of the cylinder and provided with a central cone, a washer attached to the cone, a brush, and a handle for the brush guided in the washer.

The invention consists, further, of a sectional handle for the brush, each section being provided with means for attachment to the other sections, and in certain details of construction and arrangement of parts, as will be more fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a side elevation, partly in section, of my improved flue-cleaner, showing the same inserted in a flue. Fig. 2 is a plan of the exterior of the bowl or cup and cone. Fig. 3 is a vertical central section of the flue-cleaner; and Figs. 4 and 5 are respectively a top view of the bowl, showing the washer, and a cross-section of the bowl, cone, and washer.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents a metal cylinder of suitable diameter to fit closely in a flue of ordinary size and which is shown in Fig. 1 inserted in the flue A'. A bowl B, provided with a central cone C, has openings *b* in its bottom, through which tongues projecting from the cylinder A are passed and bent, forming the lugs *l*, thereby securely attaching the bowl B to the cylinder. The cone C extends from the bottom of the bowl, within the cylinder A, through or nearly to a level with the edge of the bowl and is provided at its upper end with a flange

*f*. A washer W, of rubber or other elastic material, provided with an opening *o*, is placed upon the flange, with the opening *o* at the center of the cone. The elastic washer is secured on the flange *f* by means of a ring *r* upon the same and screw-bolts passing through the ring, washer, and flange and secured by nuts at the under side of the flange. A brush D, having bristles, of hair, metal, or other material, of suitable diameter so as to enter the cylinder A, is attached to a handle of wood or metal, which may be in one piece or in sections, as shown in the drawings, the same being composed of the two sections *h* and *h'*. In case the handle is made in sections one end of each section is provided with an interiorly-threaded socket and the opposite end with a screw-thread, whereby all the sections may be attached together. The handle is constructed of slightly greater diameter than the opening *o* in the washer, but of less diameter than the opening at the top of the cone C.

To introduce the brush into the cylinder preparatory to using the flue-cleaner in the case of a solid handle, the same is inserted in the cylinder A and through the opening *o* and cone C and the brush drawn down into the cylinder. In the use of a sectional handle the brush may be dropped into the cylinder or pushed in until the end of the section to which it is attached projects through the opening *o* and cone C, when the other sections of the handle may be attached to the same, or the longer portion of the handle may be inserted through the cone, the opening *o*, and cylinder and the brush-section then attached to the end of the handle projecting from the cylinder.

The brush having been placed in the cylinder, to use the flue-cleaner the cylinder A is inserted in the flue until the edge of the bowl B is in contact with the wall or in the case of a flue-pipe until the lower end of the pipe is within the bowl. The brush is then pushed up by means of the handle until it leaves the cylinder and dislodges the soot accumulated in the flue. In this position the flue-cleaner may be retained by one hand, leaving the other hand of the operator free to use the handle. The soot as it is dislodged by the brush falls and collects in the cylinder A and

is prevented by the tight connection of the washer and handle from escaping at the bottom of the cylinder. The principal advantage of the cone C in connection with the elastic washer lies in the facility which is afforded for operating the brush and reaching every part of the flue. The efficiency of the flue-cleaner is thus greatly increased. The bowl B serves to collect the small quantity of soot which, either in inserting the flue-cleaner into the flue or in the operation of cleaning, may escape between the cylinder and the walls of the flue. The cylinder in addition to affording a receptacle for the falling soot braces the bowl and cone, and when of such size as to fit snugly in the flue it serves to retain the cleaner in place at the end of the flue and obviates the necessity of supporting the apparatus by hand.

For cleaning flues of considerable length it is convenient to insert a short length at first and add other lengths as the work progresses until the flue is entirely cleaned. The sectional handle is also of advantage where the operator is cramped for room. In this case a number of short sections can be attached as it becomes necessary and the cleaning proceed without difficulty.

The flue having been cleaned or the cylinder A filled with soot, the brush is drawn down until it rests on the soot and serves to retain it in the cylinder and the flue-cleaner then withdrawn from the flue and emptied. This operation is continued until the flue is entirely cleaned, when the brush-handle may

be withdrawn from the cylinder and the soot adhering to the apparatus removed and the same stored until again required for use.

Having thus described my invention, what I claim is—

1. A flue-cleaner, consisting of a cylinder, a bowl attached to the lower end of said cylinder and provided with a central cone, an elastic washer attached to said cone, a brush and a handle for said brush guided in the washer, substantially as set forth.

2. A flue-cleaner, consisting of a cylinder, a bowl attached to the lower end of said cylinder, and provided with a central cone having a flange at its upper portion, an elastic washer upon said flange, a ring upon said washer, and means for clamping said washer between said flange and ring, substantially as set forth.

3. In a flue-cleaner, the combination with a cylinder, a bowl attached to the lower end of said cylinder and provided with a central cone, and a washer attached to said cone, of a brush and a sectional handle for said brush guided by the cone and washer, each section being provided at one end with a screw-socket and at the other end with a screw-thread, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

JOS. CATHRINER.

Witnesses:

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OTTO E. BAUMGART.