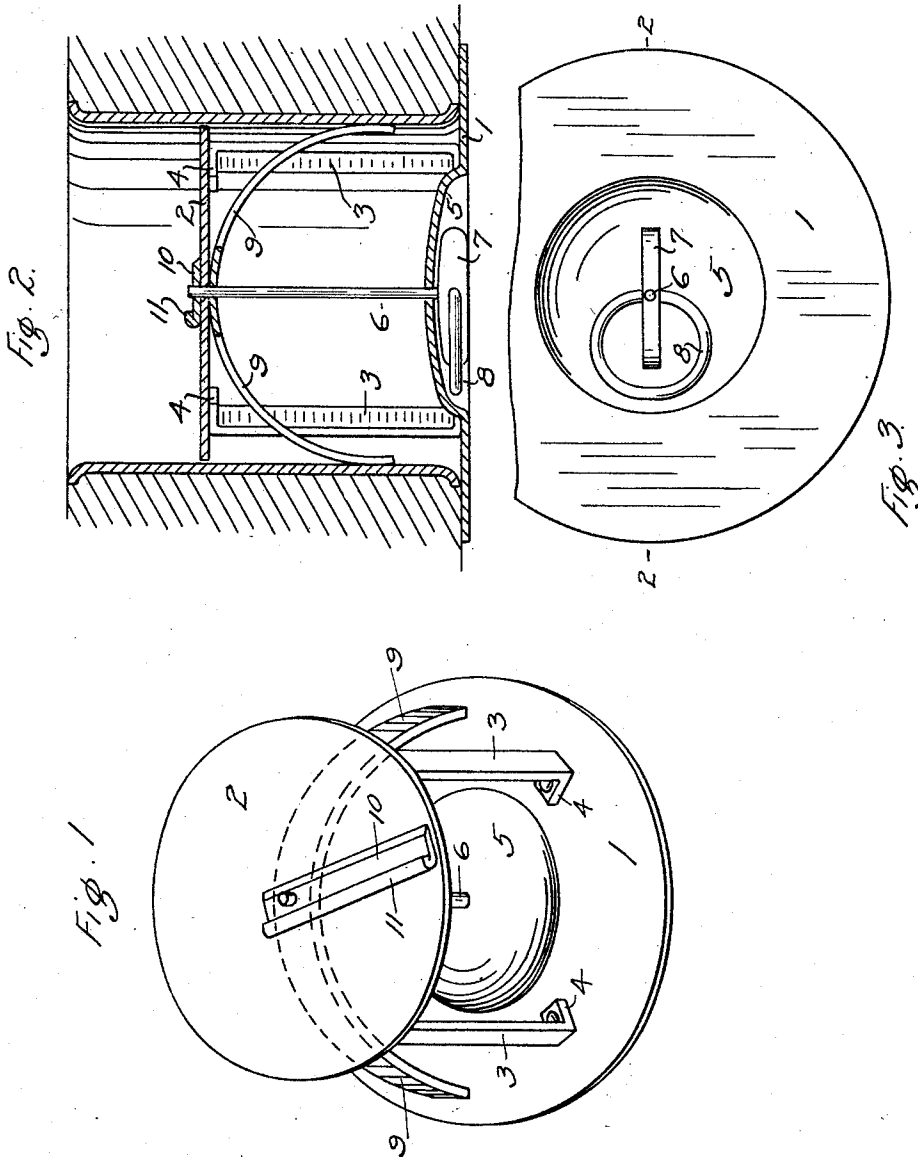


E. RICHARDS.
FLUE CLEANER.
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1,006,680.

Patented Oct. 24, 1911.



WITNESSES:

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EDWARD RICHARDS, OF TACOMA, WASHINGTON.

FLUE-CLEANER.

1,006,680.

Specification of Letters Patent.

Patented Oct. 24, 1911.

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To all whom it may concern:

Be it known that I, EDWARD RICHARDS, a citizen of the United States, residing at Tacoma, in the county of Pierce and State of Washington, have invented a new and useful Flue-Cleaner, of which the following is a specification.

This invention is an improvement in flue cleaning devices, and has for its object to effectually clean the interior of flues, pipes and the like with expedition, and at the same time in a thorough and capable manner.

Another object is to provide a blade or other equivalent means to cut the rust or soot from the scraping disk after the latter has passed through the flue, thereby saving time and the inconvenience of removing this waste product by some independent device.

I accomplish these and other objects by the devices, mechanisms and arrangements illustrated in the accompanying drawing, in which—

Figure 1 is a perspective view of my improved cleaner; Fig. 2 is a sectional side elevation of the flue and cleaner substantially on the line 2—2 in Fig. 3; and Fig. 3 is a front elevation of my improved flue cleaner.

Similar numerals of reference refer to similar parts throughout the several views.

Two disks 1 and 2, preferably made of sheet metal, are separated some distance apart and secured together in parallel position by sheet metal or similar supports 3, the latter having feet 4 at each end bent at right angles to their body portions and riveted to the said disks, the number of supports shown in the present case being three, although the exact number is not material and may be varied as desired.

As shown, the disk 1, which in service is outermost with relation to the flue, is larger than the disk 2, that may enter the said flue, which construction provides a stop to limit the inward movement of the flue cleaner, and at the same time forms additional means to catch the soot loosened but not caught by the inserted disk 2. The outer disk 1 has a central dished portion 5, extending inwardly and having an opening at the center, in which is journaled a spindle 6 carrying a handle 7 at its outer end. A ring 8 is secured through the handle 7. The spindle 6 extends between the disks 1 and 2, and through a fixed bowed member 9, hav-

ing resilient arms, and also through the disk 2, which forms a bearing for the spindle. The spring member 9 referred to forms a guide and steadying means for the disk 2 when it is applied in scraping a flue. The inner end of the spindle 6 is securely fixed to a blade 10 the function of which is to clean soot, rust, or other accumulation from the inner surface of the disk 2. The blade 10 is preferably made from a sheet metal strip, having its front edge sharpened and its back edge 11 folded upon itself as shown. This construction affords a simple means of manufacture, and at the same time combines strength and lightness.

A notable feature of this improved device is the cupped formation 5 on the outer disk 1, affording a recess for the reception of the handle 7 and ring 8 so that the device will sit flat on the floor, ceiling, wall, or other support when not in use.

In operation, the cleaner is held by the handle 7 or the outer edges of the disk 1, and forced into the flue or pipe with the disk 2 forward, which latter scrapes off the soot or other matter adhering to the interior of the pipe, depositing it upon the inner disk, from which it is afterward removed by the rotary action of the blade 10 through the handle 7 and spindle 6. The device is withdrawn from the flue by pulling on the ring 8.

It is not my intention to limit the invention to the exact detailed construction hereinbefore described, but consider that I am entitled to such modifications as fall within a fair interpretation of the claims.

Having described my invention what I claim is:—

1. In a flue cleaner, the combination of two disks of unequal size; supports securing said disks in spaced relation to each other, said supports consisting of metal strips having inturned angular feet riveted to the disks; a spindle journaled in the center of the disks, carrying a handle outside the larger disk; a ring passing through the handle; a spring on the spindle for guiding the smaller disk; and a knife blade carried at the inner end of the spindle for scraping the inner surface of said disk.

2. In a flue cleaner, an outer larger disk having a dished center; an inner smaller disk spaced apart from the larger disk; means for securing the disks together; a spindle journaled in the center of the disks;

scraping means carried at the inner end of the spindle; and a handle for operating the scraping means and carried at the outer end of the spindle.

- 5 3. A flue cleaner comprising means for scraping the interior of the flue; means for guiding the scraper; and means for scraping the scraper.

4. In a flue cleaner, two spaced disks;

means for securely fastening the disks together; and a revolving scraping means having a reinforced back edge for cleaning the surface of one of the disks.

EDWARD RICHARDS.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."