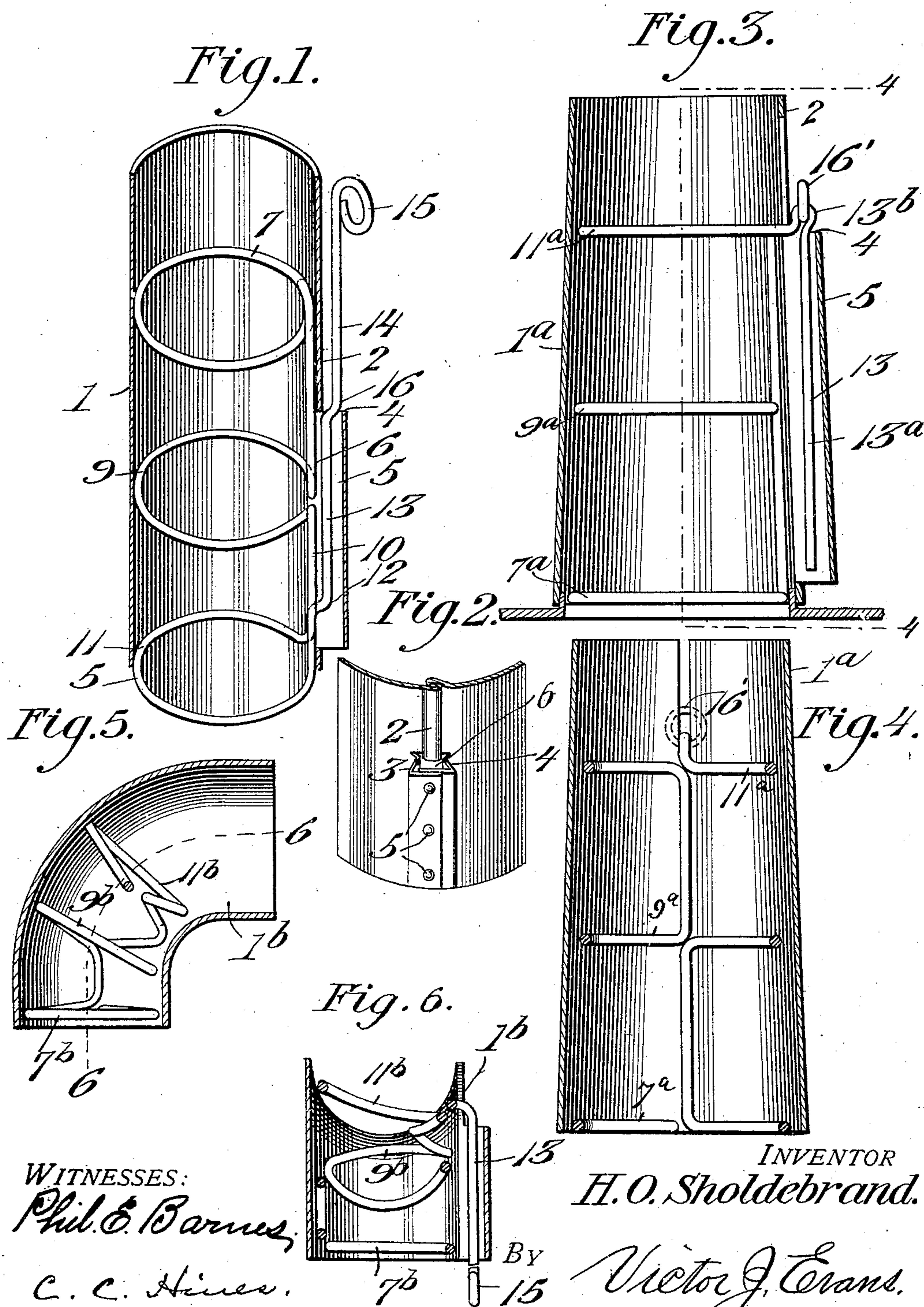


No. 860,579.

PATENTED JULY 16, 1907.

H. O. SHOLDEBRAND.  
STOVEPIPE CLEANER.  
APPLICATION FILED JUNE 23, 1906.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

HENRY O. SHOLDEBRAND, OF SALT LAKE CITY, UTAH.

## STOVEPIPE-CLEANER.

No. 860,579.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed June 23, 1906. Serial No. 323,116.

*To all whom it may concern:*

Be it known that I, HENRY O. SHOLDEBRAND, a citizen of the United States of America, residing at Salt Lake City, in the county of Salt Lake and State of Utah, have invented new and useful Improvements in Stovepipe-Cleaners, of which the following is a specification.

This invention relates to stovepipe cleaners, the object of the invention being to provide a cleaning device which may be readily and conveniently constructed from a single piece of wire, and which is effective in use and adapted to be inexpensively manufactured.

A further object is to provide a novel construction of pipe provided with a guideway for the operating member of the cleaner.

In the accompanying drawings,—Figure 1 is a longitudinal section in perspective of a joint of pipe embodying my invention. Fig. 2 is a fragmentary perspective looking toward the side of the same on which the guide is formed. Fig. 3 is a vertical longitudinal section through a flared joint of pipe, and shows a modified form of the invention. Fig. 4 is a section on the line 4—4 of Fig. 3. Fig. 5 is a longitudinal section through an elbow and a form of cleaner used in connection therewith. Fig. 6 is a section on the line 6—6 of Fig. 5.

The joints and elbows in which the improved cleaning devices are employed are each formed with a guide for the shank or operating member of the cleaning device. This guide is formed in line with and between the terminals of the seam 2. The guide may be of any length to secure a desired range of movement of the cleaner and is formed by transversely slitting the pipe, as indicated at 3, at distances apart according to the length of the guide to be formed, bending the meeting side edges 4 of the pipe at an outward angle in divergent relation, and finally bending the extreme portions of the edges inwardly and overlapping and riveting them or otherwise securing them together, as indicated at 5. The guide thus produced extends longitudinally of the pipe between portions of the seam and is approximately of triangular form in cross section, the narrower end thereof communicating with a slot 6 connecting the guide with the interior of the pipe and formed by the outbending of the portions 4.

The cleaner is formed from a single piece of wire, one end of the wire being bent to provide a terminal loop, coil or ring 7, thence continuing to form an arm 8, bent to form an intermediate coil 9, thence bent to form an arm 10 lying in line with the arm 8, and again bent to form a coil 11 constituting another terminal coil, the coils being arranged in alignment with each other and connected by the inter-

mediate arms 8 and 10. In the form disclosed in Fig. 1 the wire continues from the coil 11, being bent or offset beyond said coil, as indicated at 12, to project outwardly through the slot 6 and thence projects parallel with the axis of the coils to form a shank 13 extending longitudinally within the guide. The wire continues from the shank in form of a handle 14 projecting beyond the guide and having a terminal grip 15. At the point of junction of the shank and handle an offset or shoulder 16 is formed to bear with a desired pressure upon the outer wall of the guideway to normally hold the cleaner, when arranged in a vertical pipe, from movement. The coils 7, 9 and 11 conform in diameter to the interior diameter of the pipe, and it will be understood that by grasping the handle 15 and imparting a reciprocatory motion to the cleaner the coils will scrape the pipe and loosen the soot therefrom, so that the loosened soot will be carried off by the draft or may be removed by disconnecting an elbow or one of the pipe sections.

In the embodiment of the invention shown in Figs. 3 and 4, the pipe section 1<sup>a</sup> is of flaring form, such as is commonly used as the base section of a pipe to connect directly with a stove, and the coils 7<sup>a</sup>, 9<sup>a</sup>, 11<sup>a</sup>, are of flaring form to conform to the shape thereof. In this construction the shank 13<sup>a</sup> is mounted within the guide and serves solely as a guiding member, a loop 13<sup>b</sup> being formed at its point of junction with the coil 11<sup>a</sup> so as to admit of its engagement by the hooked end of a poker or suitable tool whereby the cleaner may be operated.

In the constructions shown in Figs. 5 and 6 I have shown the application of the invention to an elbow, the cleaner in this embodiment being substantially of the same construction as that shown in Fig. 1, but with the coils 7<sup>b</sup>, 9<sup>b</sup>, 11<sup>b</sup>, arranged so as to impart a longitudinal curvature to the cleaner to conform substantially to the degree of curvature of the elbow, so that the cleaner will operate effectually therein.

Having thus described the invention, what is claimed as new, is:—

A stovepipe cleaner comprising a single length of wire bent to form terminal and intermediate coils and arms connecting the respective terminal coils with the intermediate coil, said arms being arranged at right angles to the coils and in alignment with each other and parallel with the axis of the cleaner, the wire being continued from one of the terminal coils to form an operating handle.

In testimony whereof, I affix my signature in presence of two witnesses.

HENRY O. SHOLDEBRAND.

Witnesses:

EBER CASE,  
WM. M. BLEAK.