(No Model.)

C. V. PUGH.

COMBINED STOVEPIPE CLEANER AND DAMPER.

No. 552,395. Patented Dec. 31, 1895.

Fig. 1.

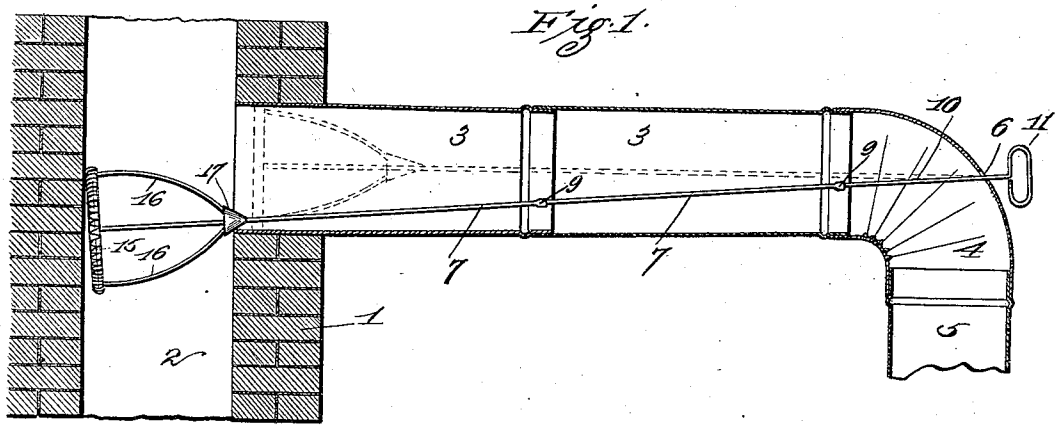


Fig. 3.

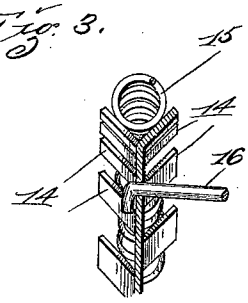


Fig. 2.

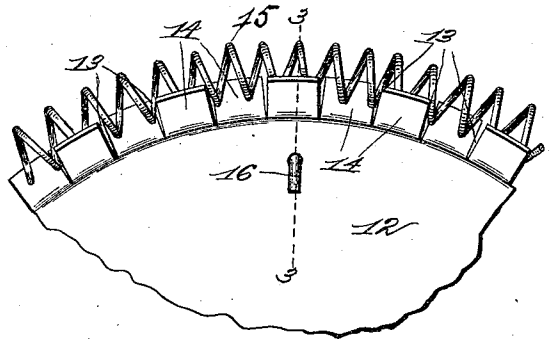


Fig. 4.

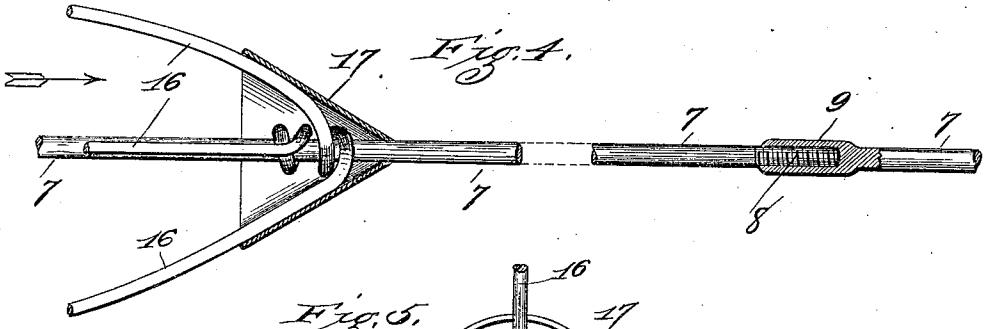
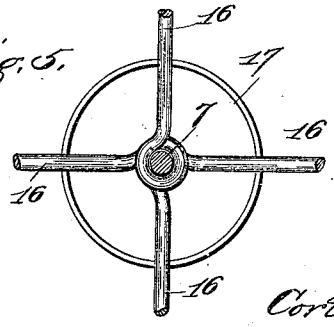


Fig. 5.



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UNITED STATES PATENT OFFICE.

CORTEZ V. PUGH, OF BOWLING GREEN, MISSOURI.

COMBINED STOVEPIPE CLEANER AND DAMPER.

SPECIFICATION forming part of Letters Patent No. 552,395, dated December 31, 1895.

Application filed August 16, 1895. Serial No. 559,562. (No model.)

To all whom it may concern:

Be it known that I, CORTEZ V. PUGH, of the city of Bowling Green, Pike county, State of Missouri, have invented certain new and useful Improvements in a Combined Stovepipe Cleaner and Damper, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to a combined stovepipe cleaner and damper; and it consists in the novel construction, combination and arrangement of parts, hereinafter described and claimed.

In the drawings, Figure 1 is a vertical sectional view of a portion of a chimney having a horizontal line of pipe leading thereinto and my improved device applied thereto. Fig. 2 is a side elevation of a portion of a disk of which I make use in carrying out my invention. Fig. 3 is a vertical sectional view taken approximately on the indicated line 3 3 of Fig. 2. Fig. 4 is an enlarged detail sectional view showing the construction of a conical guard or cap of which I make use in carrying out my invention and the manner in which the lengths of rod are connected together. Fig. 5 is an end elevation of the parts seen in Fig. 4, said elevation being taken as looking in the direction of the arrow in Fig. 4.

Referring by numerals to the accompanying drawings, 1 indicates a chimney; 2, the flue therein; 3, the horizontally-arranged stovepipe leading into said chimney-flue, and 4 the elbow that joins the line of horizontal pipe to the vertical pipe 5. Formed in the curved wall of the elbow 4 in direct alignment with the center of the horizontally-arranged line of pipe 3 is an aperture 6.

7 7 indicate wire rods, each of a length approximating that of a single length of stovepipe, and each of said rods is at one end exteriorly screw-threaded, as indicated by the numeral 8, and the opposite ends of said rods are constructed with the integral interiorly-screw-threaded sockets 9, thus forming means for very rigidly and efficiently connecting said rods. It is essential that there may be as many of these rods 7 as there are lengths of stovepipe in the horizontal line, and to the rod 7 that extends next to the elbow 4 is attached a rod 10 that extends through the aperture 6 in said elbow, and has formed on its end a handle 11.

The inner one of the rods 7 is constructed of such a length as that when in its normal position it extends to the rear wall of the chimney, and rigidly fixed to the outer end of this inner rod 7 is a metallic disk 12, which is slightly smaller in diameter than the interior diameter of the stovepipe 3. In the edge of this disk 12 are formed a multiplicity of radial slits 13, and the rectangular portions of material 14, or "ears," as they might be properly termed, between said slits are alternately bent outwardly at suitable angles relative the body portion of the disk 12.

15 indicates a wire coil that extends entirely around the edge of the disk 12 and lies directly in the V-shaped seat formed by the alternately-bent portions 14.

16 indicates wire braces that are looped around the body portion of the forward one of the wire rods 7 and extend from thence to points adjacent the edge of the disk 12, and there have their ends hooked through said disk. A conical cap 17 is located upon the ends of the braces 16 that are looped around the body of the rod 7, and said cap 17 is secured to said rod in any suitable manner.

When the device is properly put together and in its normal position, the rods 7 are firmly screwed together at their meeting ends and extend entirely through the horizontal line of pipe 3. The handle 11 on the outer one of the rods lies immediately against the elbow 4 and adjacent the opening 6 therein. The disk 12 on the forward one of the rods 7 lies within the chimney-flue 2 and directly against the rear wall 1 of said chimney. When thus located, it will be seen that the device in no way interferes with the free draft through the stovepipe and chimney-flue.

When it is desired to use the device as a damper, the operator manually engages the handle 11 and pulls outwardly on the same, thus drawing the disk 12 and coil 15 that is fixed upon the edge thereof into the end of the pipe 3 that passes into the chimney-flue, or approximately in the position as shown by dotted lines in Fig. 1. Thus the draft through the stovepipe into the chimney-flue will be cut off, though the smoke and products of combustion will readily pass from the stovepipe 3

into said chimney-flue 2 through the space between the edges of the disk 12 and the inner surface of the pipe 3, against which the coil 15 bears.

When it is desired to use the device as a stovepipe-cleaner, the operator grasps the handle 11 and draws the disk 12 and wire coil 15 located in the edge thereof forward and backward through the entire line of pipe 3, and the wire coil 15, engaging against the inner surface of said line of pipe, will scrape and remove all the soot and products of combustion adhering to said inner surface. To facilitate the cleaning or scraping of the inner surface of the pipe, the entire device is slightly rotated in its in-and-out movement, and thus the entire inner surface of the line of pipe is scraped or engaged by the coil 15. The aperture 6 in the elbow 4 is of such a size as to admit of the free passage through of the integral sockets 9 on the ends of the rods 7. The wire coil 15 being flexible, it will readily ride over the ends of the pipe, where the same are joined together. As the rods 7 are approximately of the same length as is the length of pipe 3, it will be plainly seen that by adding to or leaving off one or more of the rods 7 the device can be made to fit any horizontal line of pipe. The conical cap 17 prevents the ends of the wire braces 16 from engaging with the inner end of the pipe 3 that extends through the front chimney-wall 1.

What I claim is—

1. In a combined stove-pipe cleaner and damper, a series of rods detachably connected together at their meeting ends and extending through the entire length of a horizontal line of pipe, a disk fixed on the end of the inner one of said rods, a wire-coil located upon the edge of said disk, braces for said disk extending from the body thereof to the body of the forward rod, and a conical cap located on the rod and covering the ends of the braces.

2. In a combined stove-pipe cleaner and damper, a series of rods detachably fixed together and extending the entire length of a horizontal line of pipe, a disk mounted upon the end of the inner one of said rods, the edge of said disk being provided with a multiplicity of slits and the portions between said slits alternately bent at angles relative the body portion of the disk, a wire-coil located in the V-shaped seat formed by said alternately bent portions, braces extending from said disk to the body of the inner wire-rod, and a conical cap located upon the inner rod and covering the ends of the braces.

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

CORTEZ V. PUGH.

Witnesses:
M. G. IRION,
JOHN C. HIGDON.