No. 660,678. Patented Oct. 30, 1900.

F. T. BOWLING.

COMBINED DAMPER AND SPARK ARRESTER.

(No Model.) (Application filed July 26, 1900.)

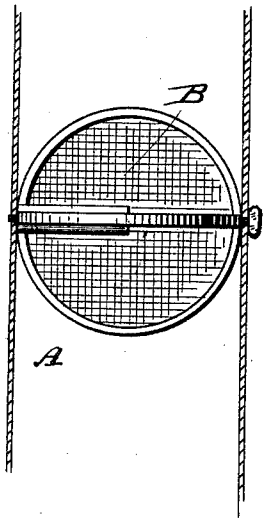


Fig. 1.

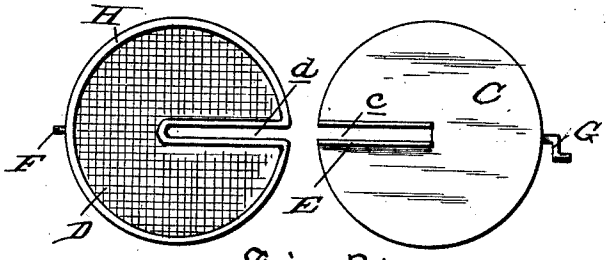


Fig. 2.

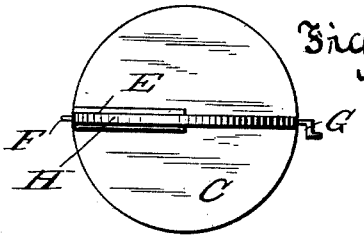


Fig. 3.

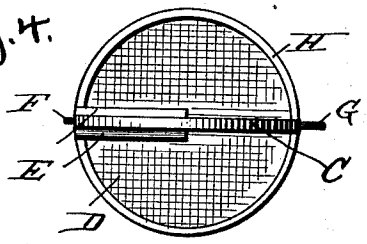


Fig. 4.

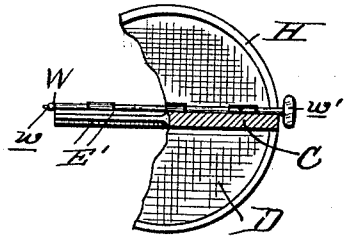


Fig. 5.

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COMBINED DAMPER AND SPARK-ARRESTER.

SPECIFICATION forming part of Letters Patent No. 660,678, dated October 30, 1900.

Application filed July 26, 1900. Serial No. 24,904. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK T. BOWLING, a citizen of the United States, residing at Hughesville, in the county of Charles and State of Maryland, have invented certain new and useful Improvements in a Combined Damper and Spark-Arrester; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to a combined damper and spark-arrester for use in ordinary stovepipes, and embodies the idea of arranging an arrester so as to form a part of the damper and adapted when the damper is turned to open the flue or pipe to be correspondingly turned to cover said opening to such an extent as to capture any sparks that may pass through the flue and endanger the premises.

The invention embodies two detachable disks, the one constituting a damper and the other a spark-arrester, which disks may be readily separated when not applied to a flue or pipe, but when applied in working position will be properly retained in their relative positions.

In the accompanying drawings an embodiment of the invention is disclosed for the sake of illustration, and when hereinafter referring to the same like letters of reference refer to corresponding parts in the several views.

Figure 1 is a vertical sectional view of a flue or pipe with the invention applied thereto. Fig. 2 is a detail view of the two disks separated. Fig. 3 is an elevation of the two disks properly attached. Fig. 4 is a plan view, and Fig. 5 is a detail view, of a modification.

Referring more specifically to the drawings, A designates a flue or pipe of any ordinary or preferred construction, and B designates a combined damper and arrester properly applied in position therein. This damper and arrester comprises the two disks C and D, the former being the damper and the latter the arrester. When in working position the arrester occupies a position directly at right angles to the position of the damper, (best seen in Fig. 3,) so that it will be apparent that when the damper is in a horizontal position and the opening in the flue or pipe completely closed the arrester will occupy a vertical inoperative position. On the other hand, when the damper is turned into a vertical position to permit a through draft in the flue or pipe the arrester will occupy a horizontal or operative position. It is desirable that the two members C and D be readily detachable, so that when the device is not applied to a flue it may be readily stored, and to accomplish this end the damper-section has a slit, as at *c*, running from its periphery to a point slightly beyond the center thereof, and the arrester-section has a corresponding oppositely-disposed slit *d*, the respective slits being adapted to pass over that portion of the opposite disk remaining intact directly in line with the slits.

To prevent lateral play of the disks relative to each other, one of them is formed with the flanges E, adapted to project outwardly slightly from the surface of the same and abut against the face of the other disk. One of the disks is likewise provided with a lug or pivot-point F, which is adapted to project into a suitable pivot-aperture in the pipe or flue, and the other disk has a handle portion G, also adapted to pass through a suitable aperture in the pipe to provide a suitable bearing therefor and means for turning the damper, or, if desirable, the supporting and operating means may comprise simply an elongated rod W, passing through apertures in the pipe and through the damper and arrester disks, Fig. 5, the one end of such rod being provided with a tap *w* and the other end with a knob *w'*. Preferably the disk C or damper-section is made of a thin sheet of metal, and the disk D or arrester-section is made of some screen or foraminous material of sufficient mesh to permit the passage of soot therethrough, strengthened around its edges by a stiff wire or sheet-metal binding H. It may be desirable in some instances to do away with the flanges E and form depressed or recessed portions E' in the damper-section, as shown in the view of the modification, to accomplish the ends desired.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. A combined damper and arrester, comprising a perforate and an imperforate disk occupying positions at right angles to each other, and means for supporting and operating the same within a flue or pipe, substantially as described.

2. A damper and arrester combined, comprising perforate and imperforate disks capable of separation, means for retaining said disks at right angles when placed together, and means for supporting and operating the same within a flue or pipe, substantially as described.

3. A damper and arrester combined, comprising two slitted disks the one of perforate and the other of imperforate material, adapted to overlap, means for retaining the disks at right angles to each other when in operative position, and means for supporting and operating the same within a flue or pipe, substantially as described.

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

FREDERICK T. BOWLING.

Witnesses:
J. MITCHELL COCHRANE,
J. HUBERT ROBERTS.