(No Model.)

P. C. DUNN.

CHIMNEY CLEANER.

No. 598,672. Patented Feb. 8, 1898.

Fig. 1

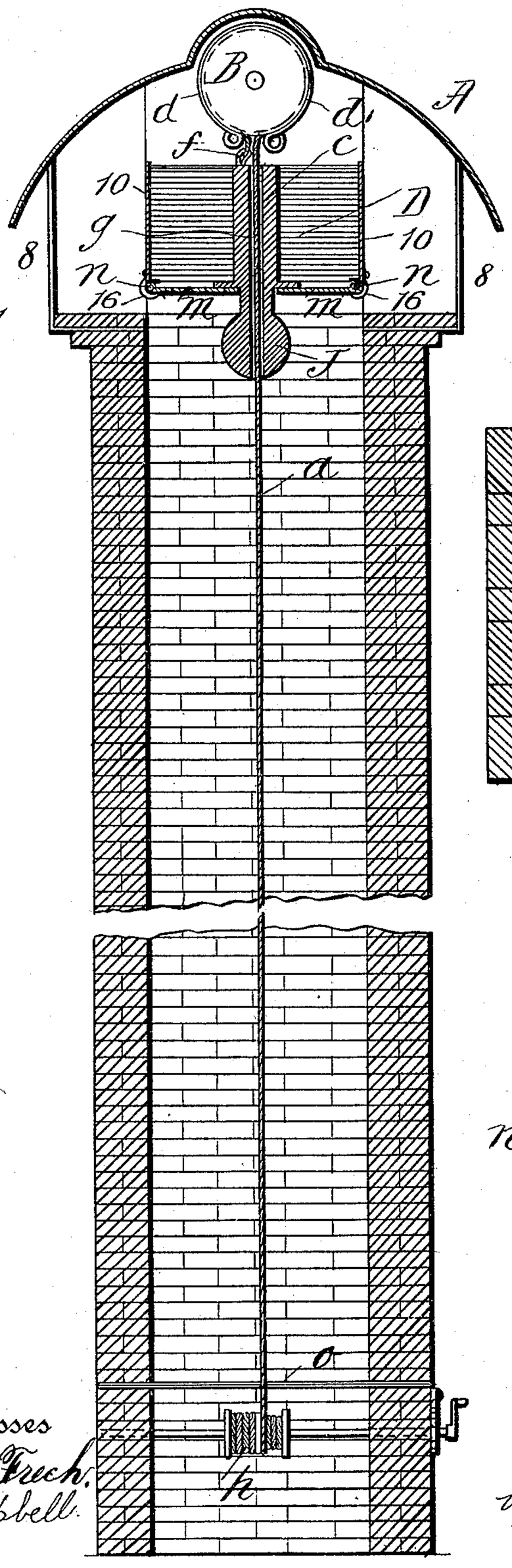


Fig. 2.

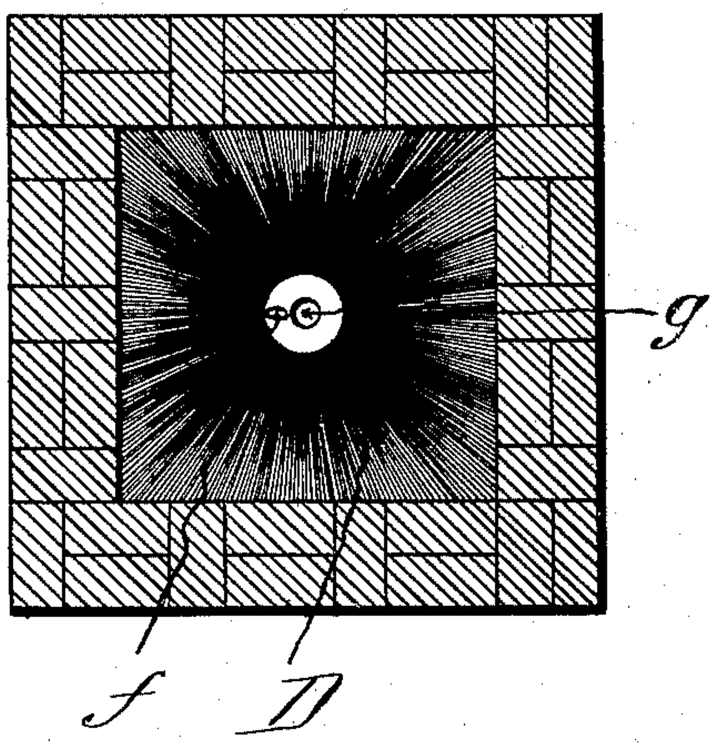


Fig. 3.

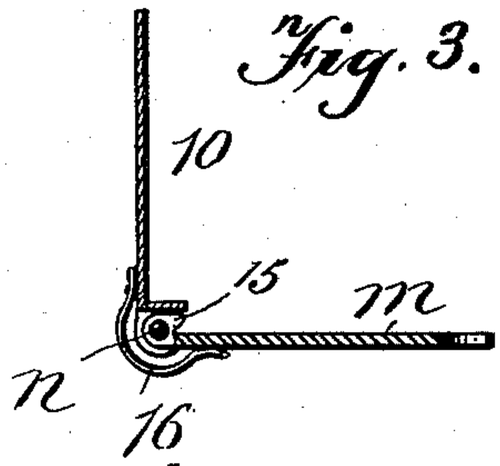
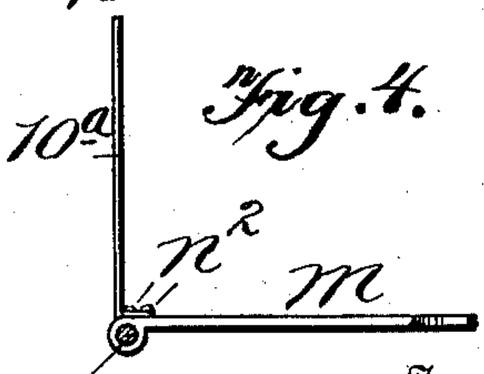


Fig. 4.



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UNITED STATES PATENT OFFICE.

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CHIMNEY-CLEANER.

SPECIFICATION forming part of Letters Patent No. 598,672, dated February 8, 1898.

Application filed April 14, 1897. Serial No. 632,122. (No model.)

To all whom it may concern:

Be it known that I, PATRICK C. DUNN, a citizen of the United States, residing at West Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Chimney-Cleaning Devices; and I do hereby 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.

This invention relates to improvements in devices for cleaning chimneys of soot and dirt.

The object of the invention is to provide a brush in or properly relative to the chimney and mechanical means for causing the brush to be drawn through the chimney, the brush being always available for its work.

The invention consists in the constructions and combinations of parts, all substantially as will hereinafter fully appear, and be set forth in the claims.

Reference is to be had to the accompanying drawings, in which—

Figure 1 is a vertical sectional view through the chimney, showing combined therewith my improved chimney-cleaning device. Fig. 2 is a plan view of the brush, the chimney being represented in horizontal section. Figs. 3 and 4 are views in detail of constructions and appliances pertaining to the movable partitions or trap-doors hereinafter referred to, Fig. 4 being a modification of the appliances seen in Fig. 3.

Referring to the drawings, it will be seen that upward in the chimney-cap A is mounted a sheave B, around which is the chain or wire cable *a*. The sheave is surrounded by a nearly circular case *d*, the contracted ends of which approach the middle of the chimney. The cable or chain *a* has its one end attached to an eye *f* at the top of the wooden core *c* of the brush D. The cable thence passes around the sheave B and down through a hole *g* in the core of the brush and is connected with the windlass *h*, located in the bottom of the chimney and operated through suitable means.

A weight J is provided on the brush, so that the brush will descend positively when permitted so to do by the described brush-controlling device.

m m represent traps or doors, which are hinged at *n* in the chimney-cap, each provided with a right-angled section 10, as shown in Figs. 1 and 3, so that when the brush is in its uppermost position the lower members will lie across the chimney-opening and prevent the fire or heat from injuring the brush. When the brush is allowed to descend, the members *m* of the trap are carried down vertically against the sides of the chimney and the upper members 10 lie across the space occupied by the brush, so that when the brush is again drawn up it will strike against these upper sections, and in moving them vertically they will return the lower sections of the trap into the horizontal position.

The two members 10 10 of the trap are united by a spring-hinge, so that the lower members may yield downwardly somewhat without necessarily causing the vertical members to move inward, because until the brush has gone part way down the vertical members could not be allowed to swing down horizontal because of the presence opposite them of some part of the brush.

As shown in the detail drawings, each of the duplicated traps or partitions for the purpose of shielding the brush when elevated, as aforementioned, is shown in the two hinged and angularly-arranged sections or members *m* and 10, the one having a shoulder or stop 15, against which the other member when at right angles thereto may abut, this abutting member being constructed to swing to assume a more or less widely-obtuse angle, as necessary, and the spring 16 is applied by being supported on the one member and reacting against the other to normally maintain the members *m* and 10 in their angular disposition.

In the view of the modification Fig. 4 in lieu of having a hinged joint between the angular members the one member 10^a may of itself be springy or yielding and secured to member *m* by riveting, as indicated at n^2, it however possessing such sufficient stiffness as to retain the other and angularly-connected member *m* at right angles thereto at all times except when the brush is in contact with one of the members and serves to momentarily distend their angular relations.

It will of course be understood that the lo-

cation of the duplicated traps in the chimney-cap is somewhat above the top of the chimney proper, and it is of course understood that there are the usual sidewise openings 8 through the cap and all the parts are so arranged that the draft in the chimney is not obstructed.

A rod or guard *o* is shown as penetrating and traversing the space in the chimney just above the winding drum or windlass for the purpose of preventing the weighted brush being brought violently against the windlass to injure the latter.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with a chimney comprising the chimney-cap having the sheave or pulley journaled therein, of a brush having a central core with a hole vertically through it, a cable having one end secured to the brush-core and thence passing around the sheave and downwardly through said hole and below the brush, the partially circular case *d* embracing the sheave, and the approached extremities thereof serving to guide the adjacent portions of the cord to the middle of the brush, and a winding device located within a lower part of the chimney with which said cable is engaged, substantially as described.

2. The combination with a chimney, and the chimney-cap thereabove having sidewise openings or flues, of a sheave located in the cap, a cord or like flexible connection passed around the sheave attached to the brush, and having a portion thereof extending through and below the brush, a winding device located in a lower part of the chimney with which said cord is extended to have a winding engagement, and a hinged trap located in the cap and having normally a position below the brush when elevated, substantially as and for the purpose set forth.

3. The combination with a chimney, of a brush normally supported above the top of the chimney, and means for moving the brush vertically, of a trap or guard also located above the chimney and consisting of angularly-arranged members one of which is yielding relative to the other, the same being pivotally supported and operated by the brush, substantially as and for the purpose set forth.

4. The combination with a chimney, and the chimney-cap thereabove having sidewise openings or flues, of a sheave located in the cap, a cord or like flexible connection passed around the sheave attached to the brush, and having a portion thereof extending through and below the brush, a winding device located in the lower part of the chimney with which said cord is extended to have a winding engagement, and a hinged trap located in the cap and having normally a position below the brush when elevated, and provided with a vertical member, which, when the brush descends and swings the trap causes said vertical member to lie across the path of the brush, substantially as and for the purpose set forth.

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

PATRICK C. DUNN.

Witnesses:
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