(No Model.)

W. H. BLISS.

FLUE AND CHIMNEY CLEANER.

No. 500,467. Patented June 27, 1893.

Fig. 1.

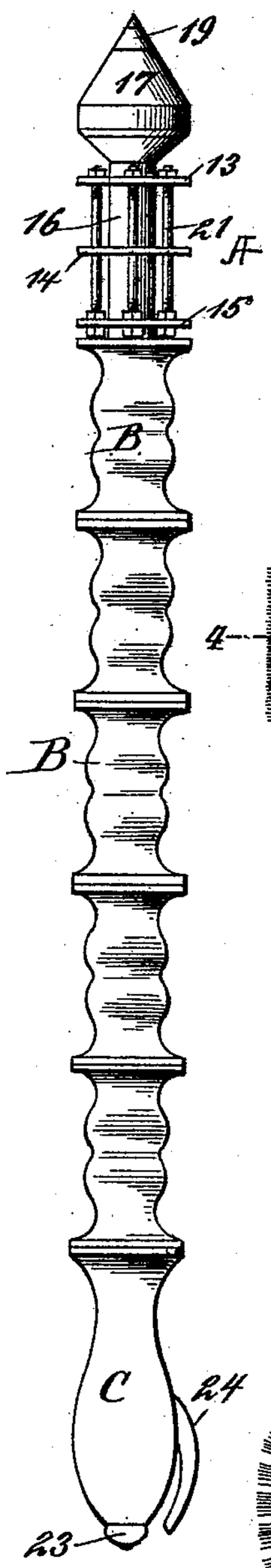


Fig. 2.

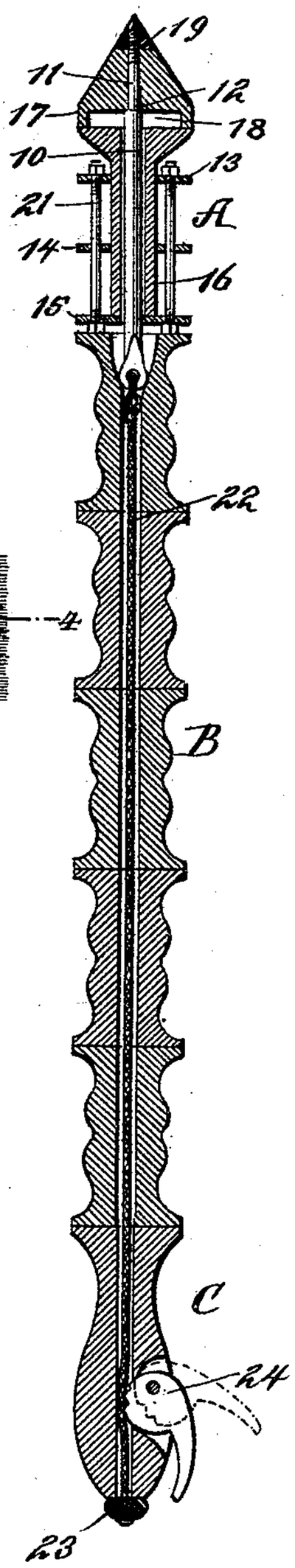


Fig. 3.

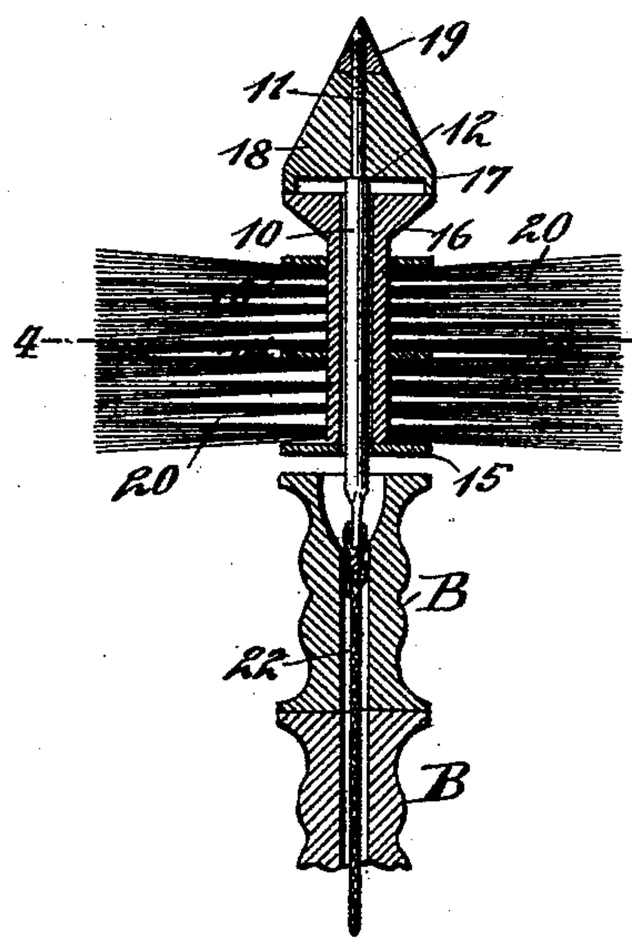
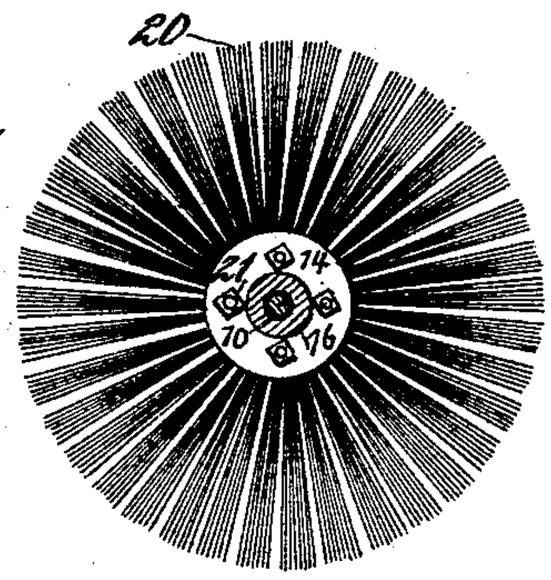


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM H. BLISS, OF KANSAS CITY, MISSOURI.

FLUE AND CHIMNEY CLEANER.

SPECIFICATION forming part of Letters Patent No. 500,467, dated June 27, 1893.

Application filed November 15, 1892. Serial No. 452,075. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. BLISS, of Kansas City, in the county of Jackson and State of Missouri, have invented a new and useful Improvement in Flue and Chimney Cleaners, of which the following is a full, clear, and exact description.

My invention relates to an improvement in chimney and flue cleaners, and has for its object to provide a device simple, durable and economic and capable of being conveniently and expeditiously passed into a chimney or flue and through the same, conforming to the shape of the flue.

A further object of the invention is to provide a flue or chimney cleaner which may be introduced into the flue or chimney from a room and carried upward or downward therefrom as desired.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the flue cleaner. Fig. 2 is a central longitudinal section through the same. Fig. 3 is a sectional detail view of the upper section of the cleaner; and Fig. 4 is a section on line 4—4 of Fig. 3.

In the construction of the flue or chimney cleaner a number of sections are employed, the number of sections being regulated by the length or height of the flue or chimney to be cleaned. All of the sections are preferably the same in structure with the exception of the upper section and the lower one; the upper section, therefore, is designated in the drawings as A, the intermediate sections as B and the lower section as C. The upper section is properly the brush or cleaning section, while the intermediate and lower sections combined form the shank section of the cleaner.

The upper or brush section A, consists of an eye bolt 10, the upper portion 11 of which is reduced, and the upper portion is threaded at its outer extremity. The reduction of the outer portion of the eye bolt provides for a shoulder 12, best shown in Fig. 2. The eye bolt passes through three or more disks, preferably three, designated as 13, 14 and 15; and through two of the disks, that is, the intermediate and the upper or outer one, a tube 16, is passed, the lower end of the tube being made to rest upon the lower disk; the eye bolt passes through this tube and beyond its upper end, and the upper portion of the tube is expanded or enlarged over the remaining portion, it being adapted to receive a conical cap 17. This cap is provided with a chamber or recess 18 in its under face, forming thereby a marginal flange, which fits snugly and firmly upon the upper expanded or extended portion of the tube 16; and the base or upper wall of the chamber 18 of the cap rests upon the shoulder 12 of the eye bolt, while the reduced and threaded portion of the eye bolt is passed entirely through the cap and receives a conical lock nut 19, thoroughly binding the two parts together. The cap, while spoken of above as conical, is really shaped as the frustum of a cone, a true conical shape being given to the upper end of the brush section by the addition of the lock nut 19.

Between the flanges 13, 14 and 15, broom straw 20, or other equivalent brush material is placed, radiating from between the disks, and the entire brush thus formed is given a more or less circular form. The disks are drawn together to clamp the brush by passing bolts 21 through the disks and through the brush, providing said bolts with suitable jam or lock nuts.

An elastic cord 22, is secured to the eye of the bolt 10 of the brush section, as best shown in Figs. 2 and 3. This cord may extend the entire length of the shank portion of the cleaner, or it may extend only partially the length and be joined with a cord of ordinary construction.

The intermediate sections B, constituting a portion of the shank, are of a spool-like character, the upper spool at its upper end having its bore enlarged to receive the eye portion of the bolt of the upper section; and the spool sections forming the intermediate portion of the shank are strung upon the cord 22 until the shank is given a proper length to project the cleaning or brush section entirely through the flue or chimney to be op-

erated upon. The lower section C of the shank acts in the capacity of a handle, and the cord after being passed through a bore formed in that section is attached to a nut 23 of any approved formation. The handle or lower section C of the shank is provided with a recess in which a cam 24, is pivoted. One face of this cam is preferably roughened and is adapted to engage with the cord 22, as shown in Fig. 2, holding said cord in fixed position after the shank sections have been made to engage with one another and with the upper or cleaning section. The cam 24, is provided with a suitable handle whereby it may be readily manipulated.

In the operation of this device the brush section is introduced into the chimney or flue to be cleaned, and the intermediate or spool sections are added until the brush section has been forced practically through the tube or flue to be operated upon. Finally the handle section C is added, and the cleaner may be drawn in or out of the flue as may be deemed necessary.

By reason of the elastic connection between all the sections of the cleaner, the cleaner will conform to any irregularities in the shape of the flue or chimney to be cleaned.

This device is exceedingly simple, it is durable and economic, and it is capable of being readily manipulated from within a chamber or apartment, thus obviating the necessity of ascending to the top of the structure in order to clean the flue.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A flue cleaner, comprising a number of tubular sections and an elastic cord passing through the sections and uniting them together, one of the sections carrying a cleaning device, substantially as described.

2. A flue cleaner, comprising an upper cleaning section, a lower handle section, intermediate spool sections, and a cord passing through the spool sections and connecting them to the cleaning and handle sections, substantially as described.

3. A flue cleaner, consisting of a series of sections, one of which carries a brush, and a cord connection between the sections, in a degree elastic, the lower section being provided with a cam for engagement with the cord, as and for the purpose specified.

4. In a flue cleaner, the combination, with a brush section comprising a body portion carrying the brush, and a bolt passing through the body, of a cord, in a degree elastic, connected with the bolt, a series of spool sections strung upon the cord, a handle section through which the cord passes, engaging with the lowermost of the spool sections, and a clamp carried by the handle section and adapted for engagement with the cord, as and for the purpose specified.

5. In a flue cleaner, the combination, with the brush or cleaning section, said section comprising a conical head having a tubular body, an eye bolt passed through the body and the head, disks surrounding the body, brushes clamped between the disks, and clamping devices uniting the disks, of an elastic cord attached to the eye bolt, spool sections strung upon the cord, the uppermost of which engages with the brush section, a handle section through which the cord also passes, engaging with the lowermost spool section, and a cam pivoted in the handle section and adapted for engagement with the cord, as and for the purpose specified.

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