

M. MIYAMOTO.
CHIMNEY CLEANER.
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1,040,728.

Patented Oct. 8, 1912.

Fig. 1.

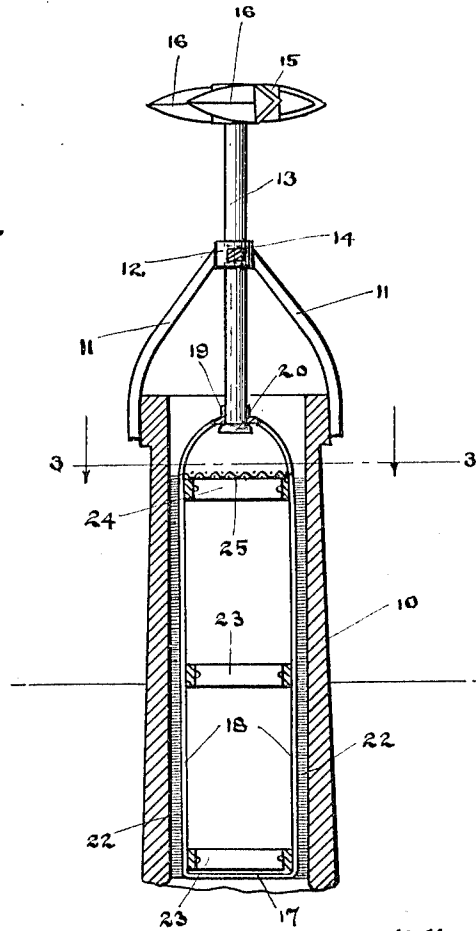


Fig. 2.

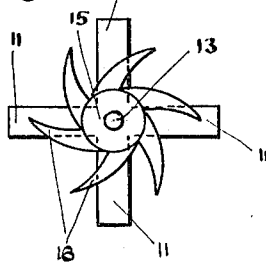
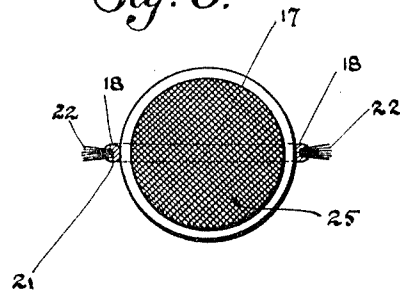


Fig. 3.



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CHIMNEY-CLEANER.

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To all whom it may concern:

Be it known that I, MOHACHI MIYAMOTO, a citizen of the Empire of Japan, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Chimney-Cleaners; 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 chimney cleaners, and is designed particularly to provide a means which will constantly keep the interior of the ordinary chimney or flue free from all accumulation of soot and the like.

In chimneys as the same are now constructed, soot, etc., accumulate throughout the length of the chimney, particularly in the part thereof projecting from the house, condensation being formed by the cooling of the chimney by the air. This accumulation of condensation of soot and the like often causes the majority of fires which occur in chimneys and which cause a great deal of loss of property. By constantly keeping the interior of the chimney clean of this condensation or accumulation of soot, the danger or liability of fire is greatly decreased.

In addition to the foregoing objects of the present invention the smoke which passes from the chimney passes through a wire screening which prevents burning cinders and sparks from being emitted from the chimney.

With the above and other objects in view, this invention consists in the construction, combination and arrangement of parts, all as hereinafter more fully described, claimed and illustrated in the accompanying drawings, wherein:

Figure 1 is a central, vertical section of the chimney, illustrating the present invention; Fig. 2 is a top plan view of the present invention; and Fig. 3 is a horizontal section taken along line 3—3 of Fig. 1.

The chimney cleaner forming the subject matter of the present invention comprises a bracket or support removably secured to the upper terminal of the chimney, having a shaft mounted for rotation therein, said shaft being provided at its upper terminal with a fan or weather vane which is adapted to be engaged by any breeze or wind which may be stirring, thereby rotating the shaft. A U-shaped vertical wire is mounted in the

body of the chimney and has the terminals or arms thereof secured to the lower terminals or shaft aforesaid, said U-shaped vertical wire carrying throughout the entire length of the arms thereof a plurality of radially extending spring wire brushes which are adapted to constantly bear against the walls of the chimney. The body of these wires are so braced by the circular bands interposed therebetween as to insure the strength and rigidity of the structure and insure the engagement of the wall by the device forming the subject matter of the present invention. The upper bearing ring interposed between the arms of the vertical U-shaped wire is provided with a copper wire screening through which the smoke must pass, and which retains sparks and cinders and the like within the body of the chimney.

Reference being had more particularly to the drawings, 10 indicates a chimney of any suitable shape and construction, the top of said chimney being engaged by a plurality of spring arms 11 at their upper terminals which form the integral of the collar or bearing 12. A shaft 13 is mounted for rotation in the collar or bearing 12 by means of the reduced portion 14 which is engaged by said collar or bearing. A fan 15 is keyed to the shaft 13 at its upper terminal and comprises a plurality of radially extending curved blades 16 which are adapted to receive the wind or fluid pressure from any direction in which the same may be blowing.

A single piece of wire 17 bent upon itself to form the vertically extending arms 18 is mounted in the chimney 10. The upper terminal of the arms 18 are convergent, said arms being curved toward one another and having the ends thereof terminating in a collar 19. This collar 19 engages the lower terminal of the shaft 13 and is keyed thereon, said collar being retained in its operative position by an enlargement 20 which rigidly secures said wire structure to the shaft. The vertical arms 18 of the wire 17 are provided with the grooves 21 in which are mounted the resilient spring wire brushes 22, said brushes operating and bearing against the interior walls of the chimney. A plurality of circular rigid bands 23 are mounted between the arms 18 and are rigidly secured thereto, said bands insuring a rigid structure and the positive engagement of the chimney by the brushes 22. The upper band 24 which is mounted adja-

cent to the curved portion of the arms 18 carries a copper screen 25 through which all smoke emitted from the chimney must pass and thereby thoroughly cleanse the smoke of all burning cinders, clinkers and the like.

From the foregoing construction it will readily be seen that the cleaner forming the subject matter of the present invention is not only removable from the chimney, but when once attached constantly cleanses the same, thereby insuring all of the objects heretofore named.

Having thus fully described my invention, what I claim as new, and desire to secure by U. S. Letters Patent, is:

1. In a cleaner of the class described, the combination with a chimney, of a bracket mounted thereon, a shaft mounted for rotation in said bracket, a fan carried at the upper terminal of said shaft, means whereby the interior of the said chimney may be

cleansed by the rotation of said shaft, a U-shaped member carried rigidly by said shaft, and brushes carried by said U-shaped member.

2. In a cleaner of the class described, the combination with a chimney, of a bracket mounted thereon, a shaft mounted for rotation in said bracket, a fan carried at the upper terminal of said shaft, means whereby the interior of the said chimney may be cleansed by the rotation of said shaft, a U-shaped member carried rigidly by said shaft, brushes carried by said U-shaped member, and means whereby smoke emitted from said chimney may be strained.

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

MOHACHI MIYAMOTO.

Witnesses:

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J. R. PRINGLE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."