W. A. STUCKEY.

STOVEPIPE CLEANER.

APPLICATION FILED JAN. 28, 1911.

997,160.

Patented July 4, 1911.

Fig. 1.

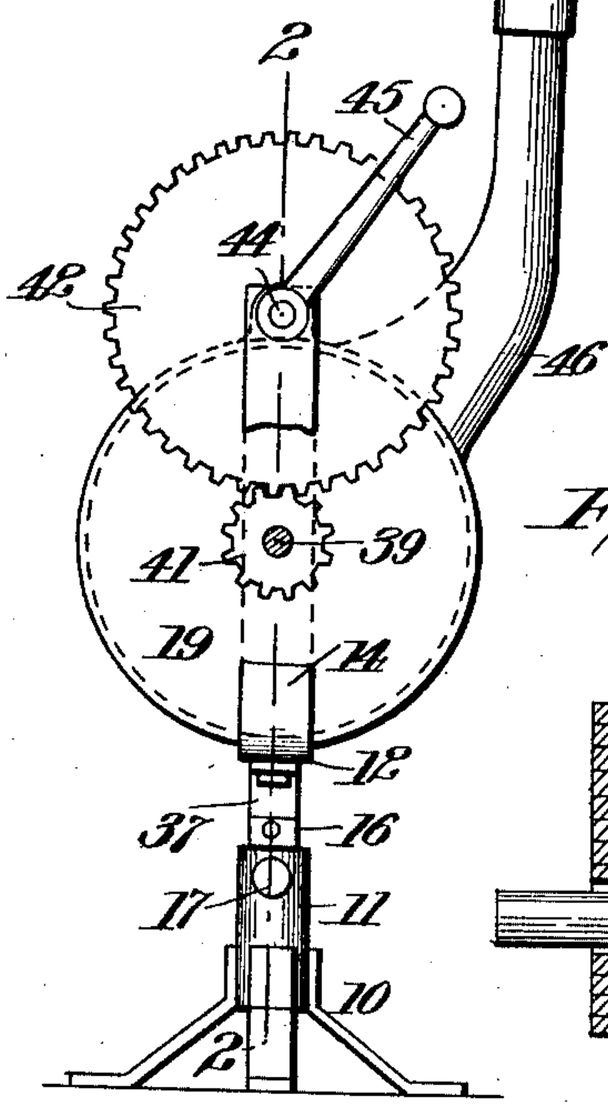


Fig. 7.

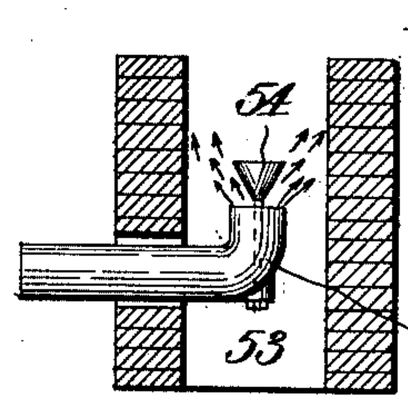


Fig. 2.

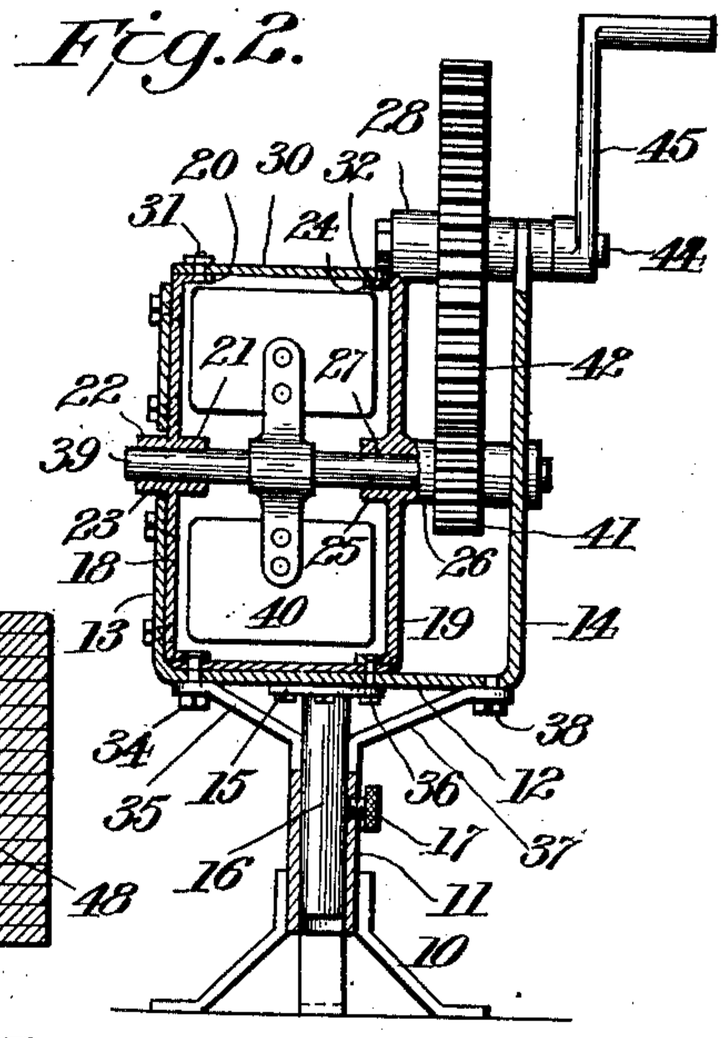


Fig. 5.

Fig. 3.

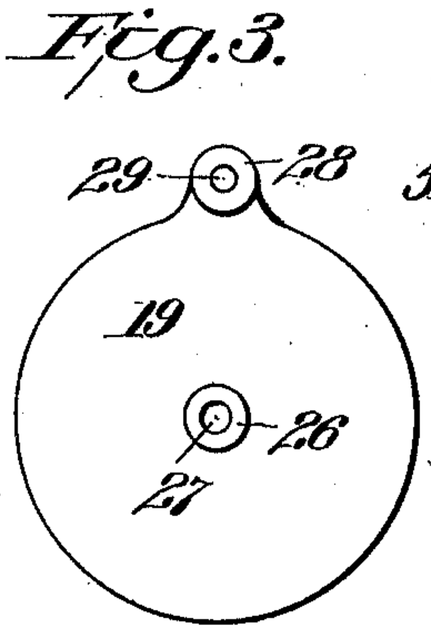


Fig. 6.

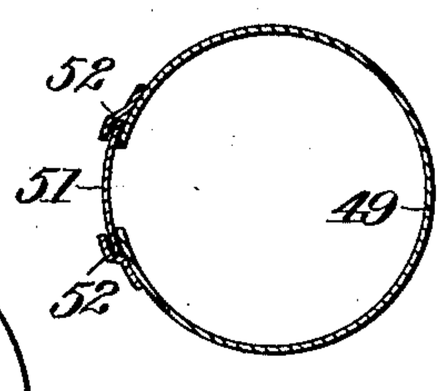
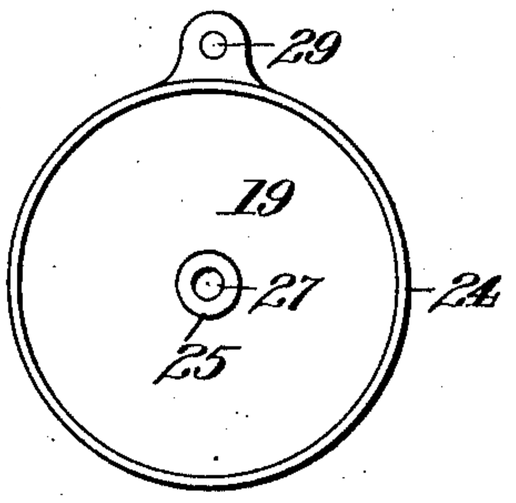


Fig. 4.



Witnesses

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STOVEPIPE-CLEANER.

997,160. Specification of Letters Patent. Patented July 4, 1911.

Application filed January 28, 1911. Serial No. 605,328.

To all whom it may concern:

Be it known that I, WILLIAM A. STUCKEY, a citizen of the United States, residing at Clarkshill, in the county of Tippecanoe and State of Indiana, have invented certain new and useful Improvements in Stovepipe-Cleaners, of which the following is a specification.

My invention relates to means for cleaning soot out of stove pipes and chimneys.

In cleaning out chimneys and stove pipes, whether by hand or by machine, great difficulty has been encountered and much damage done to the contents of the rooms containing the stove pipes and from which the chimneys lead, the dirt arising from the operation tending to disfigure or destroy the value of furniture and merchandise.

It is one object of my invention to provide a machine which will satisfactorily clean stove pipes and chimneys without entailing damage to the contents of a room where the cleaning is being done.

It is a further object of my invention, to provide a machine capable of performing the functions mentioned in the manner desired, which shall at the same time be of economical construction, light in weight, strong and durable, readily movable from place to place, adjustable to and from working position, and effective in operation.

With these objects in view, my invention consists in the improved construction, arrangement and combination of the parts of the machine for cleaning chimneys and stove pipes, which will be hereinafter fully described, the particular points of novelty being specifically pointed out in the claims.

In order that others may be enabled to construct and use my invention, I will now proceed to particularly describe the construction and operation of its various parts, in connection with accompanying drawing, which illustrates a preferred embodiment of the invention, and in which—

Figure 1, represents a view in side elevation with one fork of the supporting frame broken away and shown in dotted lines, some other parts being omitted and some also shown in dotted lines. Fig. 2, represents a vertical sectional view on the plane indicated by the broken line 2—2, of Fig. 1, with parts shown in elevation and including the supporting stand and vertical support. Fig. 3, represents a view in elevation of the outside of the right hand cylinder head, Fig. 4 represents a view in elevation of the inside thereof. Fig. 5, represents a sectional view taken on a horizontal plane, cutting through the stove pipe, with the slide which covers the opening for the introduction of the nozzle of the blower in place, closing said opening. Fig. 6, represents a sectional view on a horizontal plane cutting through the stove pipe at the center of the opening in the side thereof, with the nozzle of the blower in position in the pipe. Fig. 7, represents a vertical sectional detail view through part of a chimney in which the nozzle of the blower has been introduced, a modification for spreading the air current, being illustrated in this figure.

Like reference characters mark the same parts wherever they occur in the several figures of the drawing.

Referring specifically to the drawing, 10 indicates a preferable form of supporting stand, shown as composed of four legs, spreading away from the center, each at a right angle to the adjacent leg on either side and having rigidly secured centrally a vertical hollow bar or pipe 11 with open upper end.

Depending centrally from a main support frame composed of a base 12, and uprights 13, 14, and rigidly secured to the base by bolts passing through a collar 15, is a bar or rod 16 which telescopically engages in the pipe 11, being capable of vertical adjustment therein in order to raise or lower the whole mechanism as may be desired, and held at any desired adjustment by means of a set screw 17 threaded through one side of the pipe and impinging upon the rod.

18 and 19, indicate cylinder heads, or plates preferably of cast metal, the head 18 being provided with an annular laterally projecting flange 20 at its periphery and inwardly and outwardly extending flanges 21 and 22 surrounding a central opening 23, and the head 19 with a laterally extending annular flange 24 at its periphery, inwardly and outwardly extending annular flanges 25 and 26 surrounding a central opening 27 and an upward extension 28 on its upper edge provided with an opening 29 surrounded by an outwardly extending annular flange.

At 30 is indicated a cylinder preferably of a galvanized sheet metal, bent around and secured upon the laterally extended flanges 20 and 24 of the cylinder heads 18 and 19,

by any suitable means such as bolts (or rivets) 31, passing through the flange 20 of head 18, bolts 32 passing through the flange 24 of head 19, bolts 33 passing through the base 12, and collar 15 of the depending rod 16, bolts 36 passing through the base 12 and a bracket 35 connecting the base 12 to the rod 16. Another bracket 37, similar to bracket 35, connects the rod 16 with the base 12 by means of a bolt 38.

A central shaft 39 is journaled in the openings 23 and 27 in the cylinder heads 18 and 19 and in the openings in the uprights 13 and 14 of the frame, is a shaft 39, which, between the cylinder heads 18 and 19, carries a fan 40 of any approved construction. This shaft 39 passes beyond the head 19 and upon the portion between the upright 14 and head 19, carries a rigidly secured pinion 41, which engages a gear wheel 42, mounted on a stub shaft 44 journaled in the opening 29 in the extension 28 of the head 19, and in the bearing 44′ at the upper end of the upright 14 of the supporting frame, the projecting end of said stub shaft being provided with a suitable crank handle 45.

Extending outwardly and upwardly from the cylinder is a discharge spout 46 to which is swiveled an elbow 47, of pipe, which in turn receives an elbow 48 which passes into a stove pipe 49.

The stove pipe is provided with a suitable opening 50 to receive the elbow 48, one arm of which projects upwardly in the stove pipe, and the other horizontally outward from the stove pipe.

A suitable slide, as at 51 may be provided to close the opening in the stove pipe, flanged slideways 52 being provided to receive the slide.

The several central annular flanges on the cylinder heads 18 and 19 form suitably elongated bearings for the central shaft, while the flange on the extension of that head forms a similar suitable bearing for the stub shaft.

When the device is to be used, it is adjusted to the proper height for the insertion of the elbow 48 into the stove pipe, when, by turning the crank handle, the fan will be rapidly rotated and force a strong current of air upward through the stove pipe and thence through the chimney, thus cleaning out effectually all of the soot contained therein, without the necessity of entering the chimney or taking down the stove pipe, and without any danger of spoiling or damaging the furniture or merchandise in the room.

In Fig. 7, I have shown the elbow 48ª introduced into a chimney 53 direct, when a stove pipe is not used, and also how the utility of the device may be increased by causing a deflector or spreader 54 to be mounted above the discharge mouth of the upright arm of the elbow 48 whereby the current may be deflected and caused to bear more directly upon the interior of the chimney (or stove pipe) being cleaned.

It will be obvious, that the spirit and scope of my invention, will include many slight changes which might be made in the specific construction of the various parts.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. In a device of the character described, a supporting base, a supporting frame adjustably mounted on the base, the supporting frame including spaced uprights, a fan cylinder mounted in the supporting frame in spaced relation to one of the uprights, a fan shaft journaled through the cylinder and said uprights, a fan secured on said shaft and confined within the cylinder, the cylinder having an outlet, a stub shaft journaled at one end on the cylinder and at its opposite end in one of said uprights, a gear wheel on the stub shaft, a pinion on the fan shaft between the cylinder and the upright from which the cylinder is spaced, the gear wheel and pinion being in mesh and means for rotating the stub shaft.

2. In a device of the character described, a supporting frame, including spaced uprights, a fan cylinder secured to the supporting frame adjacent one of the uprights and spaced from the other, a shaft journaled through said uprights and the cylinder, a fan secured to the shaft and confined within the cylinder, the cylinder having an outlet, a stub shaft journaled on the cylinder and in the upright from which the cylinder is spaced, a gear wheel on the stub shaft, a pinion on the fan shaft, the gear wheel and pinion being arranged between the cylinder and the upright from which the cylinder is spaced and means for rotating the stub shaft.

3. In a device of the character described, a fan cylinder, comprising two heads each provided with laterally extending annular peripheral flanges and with central openings surrounded by inwardly and outwardly extending annular flanges forming extended bearings, a fan shaft journaled on said shaft between the heads, and a fan secured on said shaft, in combination with a support having two uprights at the respective ends of the shaft, an upward extension on one of the cylinder heads having an opening surrounded by a laterally extending annular flange, a stub shaft journaled in the opening in the extension, and in one of the uprights, an engaging gear wheel and pinion on the stub shaft and fan shaft respectively, and a crank handle on the stub shaft.

4. In a device of the character described, a supporting base provided with a socket, a supporting frame provided with a depending projection fitting in said socket, the supporting frame including two uprights, a

cylinder mounted on the supporting frame, the cylinder having a lug at its top, a shaft journaled through the uprights and the cylinder, a fan secured to the shaft and confined within the cylinder, the cylinder having an outlet, a stub shaft journaled in one of the uprights and in the lug at the top of the cylinder, a pinion secured to the fan shaft, and means for rotating the stub shaft, the gear wheel and pinion being in mesh so that upon operation of the stub shaft the fan will be operated in the cylinder.

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

WM. A. STUCKEY.

Witnesses:

WM. R. JINNETT,

C. P. AYRES.