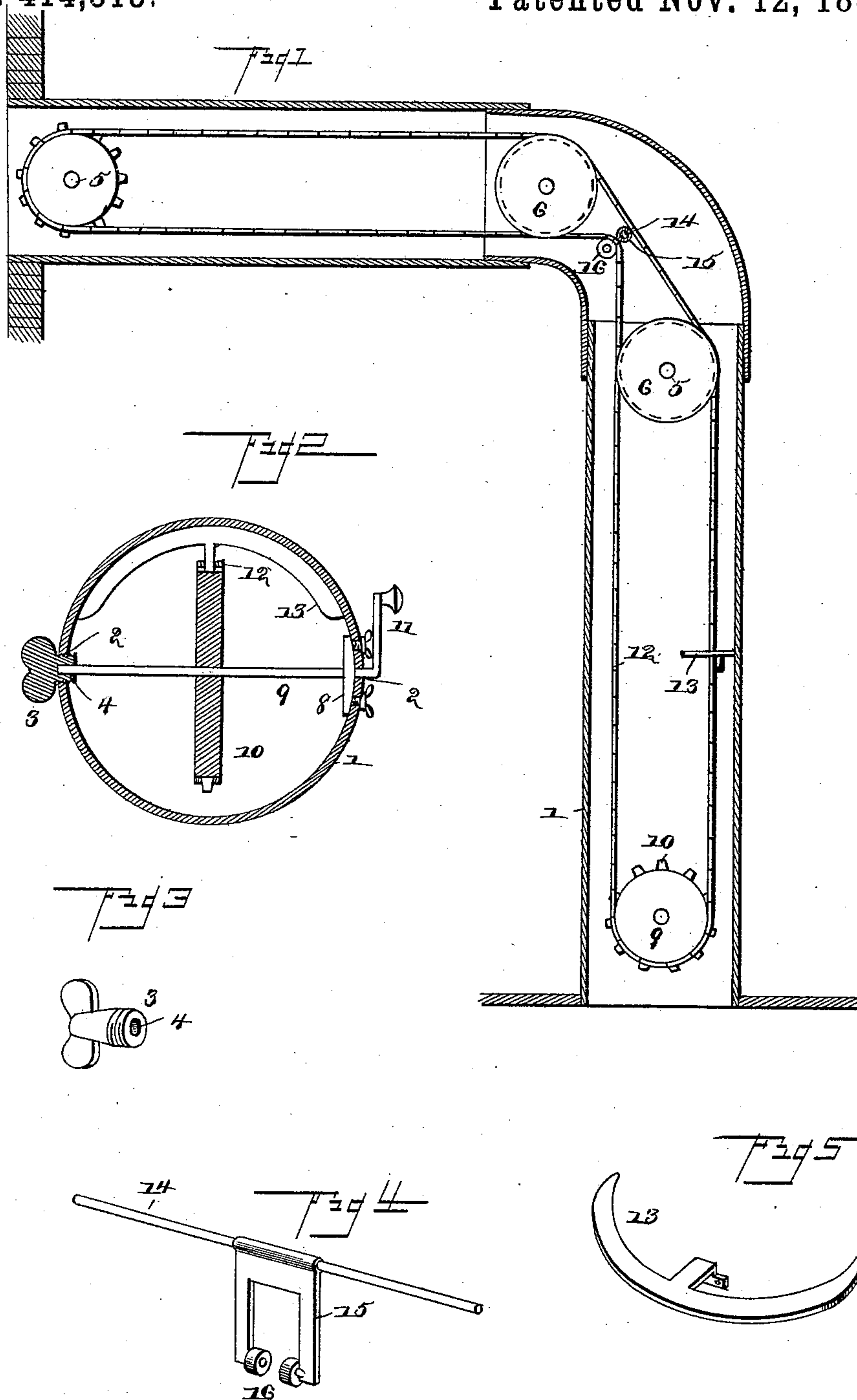


(No Model.)

S. A. KEM & J. M. JACKSON.
STOVE PIPE CLEANER.

No. 414,813.

Patented Nov. 12, 1889.



Witnesses:

John Emrie
W. S. Swall

By their Attorneys,

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UNITED STATES PATENT OFFICE.

STEPHEN A. KEM AND JOSEPH M. JACKSON, OF HIGGINSVILLE, MISSOURI.

STOVE-PIPE CLEANER.

SPECIFICATION forming part of Letters Patent No. 414,813, dated November 12, 1889.

Application filed August 23, 1889. Serial No. 321,758. (No model.)

To all whom it may concern:

Be it known that we, STEPHEN A. KEM and JOSEPH M. JACKSON, citizens of the United States, residing at Higginsville, in the county of Lafayette and State of Missouri, have invented a new and useful Stove-Pipe Cleaner, of which the following is a specification.

This invention has relation to soot-cleaners for removing soot from stove-pipes, and among the objects in view are to provide means for thoroughly eradicating soot from stove-pipes and delivering the same into the chimney or back part of stove, to be subsequently removed by hand, whereby the life of the pipe is increased and danger of fire from accumulating soot avoided.

With these general objects in view the invention consists in mounting in the pipe a series of pulleys, and arranging over the same an endless belt extending from one end of the pipe to the other and carrying one, or it may be a series, of scrapers adapted for contact with the wall of the pipe and for removing or scraping accumulated soot therefrom; and, furthermore, in a sprocket-wheel serving as one of the pulleys, and a crank-shaft for supporting the wheels and operating the same and extending outside of the pipe and within easy grasp of an operator.

The invention consists, also, in other features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a vertical section, and Fig. 2 a horizontal section, of a stove-pipe provided with a soot-cleaner in accordance with our invention. Fig. 3 is a detail in perspective of one of the bearing-screws; Fig. 4, a detail in perspective of the belt-guide and its shaft, and Fig. 5 a detail in perspective of the scraper.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 represents a stove-pipe, consisting of the usual number of sections, and in the diametrically-opposite sides of the same are formed perforations 2, the perforations of one side corresponding with those of the other, and in the perforations are threaded thumb-screws 3, the inner ends of which terminate within the pipe, and are provided with bearing recesses or concavities 4. Within each pair of

bearing thumb-screws are diametrically-mounted shafts 5, and upon each shaft is mounted a light cast-iron pulley 6, for rotation thereon, the pulleys being diametrically-opposite portions of their peripheries the same distance from and in close proximity to the adjacent walls of the pipe. At the lower end of the pipe, in a bearing set-screw 3 at one end and a clamping-plate 8 at the opposite end, is mounted a crank-shaft 9, carrying a sprocket 10, and terminating in a handle 11, and over the sprocket and pulleys is mounted a sprocket-chain 12, endless, and carrying one or more transversely-arranged curved scraping-blades 13, the curvature of the blades agreeing with that of the pipe. At the center of the elbow of the pipe is mounted a transverse shaft 14, similar to the pulley-shafts, and loosely depending therefrom is a hanger 15, carrying at its lower ends guide-pulleys 16, which maintain the lower portion of the belt in contact with the pulleys.

The operation of the invention will be readily apparent from the foregoing description, and may be briefly stated as follows: By revolving the crank in either direction the soot is removed from the pipe, and may be carried up and be dumped into the chimney-place or brought rearwardly and dumped into the stove for subsequent removal by hand.

Having described our invention, what we claim is—

1. The combination, with a stove-pipe, of a series of pulleys mounted therein and of a size and location as to bring diametrically-opposite portions of their peripheries in close and equal proximity to the walls of the pipe, an endless chain mounted on the pulleys, a curved scraper-blade mounted on the chain and adapted to be brought in contact with either side of the pipe, and means for operating said chain, substantially as specified.

2. The combination, with a stove-pipe, of a series of pulleys mounted therein and of a size and location as to bring diametrically-opposite portions of their peripheries in close and equal proximity to the walls of the pipe, one of which is a sprocket-pulley, an endless chain mounted on the pulleys, a curved scraper-blade mounted on the chain and adapted to be brought into contact with either

side of the pipe, and the crank-shaft terminating in a handle for the support of the sprocket-pulley and for operating the same and the chain, substantially as specified.

5 3. The combination, with a stove-pipe elbow, of a series of transverse diametrically-located shafts mounted therein, loose pulleys mounted on the shafts at their centers, a sprocket-chain mounted over the pulleys and
10 having its opposite halves at equal distances from their respectively-adjacent sides of the pipe, and a transverse shaft mounted intermediate to the pulleys at the angle of the elbow and having a depending belt-supporting
15 hanger for guiding and supporting the chain, substantially as specified.

4. The combination of the stove-pipe having a series of opposite openings, thumb-

screws mounted in the openings and having bearings formed at their inner ends, shafts 20 mounted in the bearings, pulleys mounted on the shafts, an endless chain mounted on the pulleys, a scraper-blade mounted on the chain, and a lower sprocket wheel or pulley receiving the chain and mounted on the crank-shaft, 25 terminating in a crank-handle located outside of the stove-pipe, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

STEPHEN A. KEM.

JOSEPH M. JACKSON.

Witnesses:

C. C. GRAU,

CLARENCE VIVION.