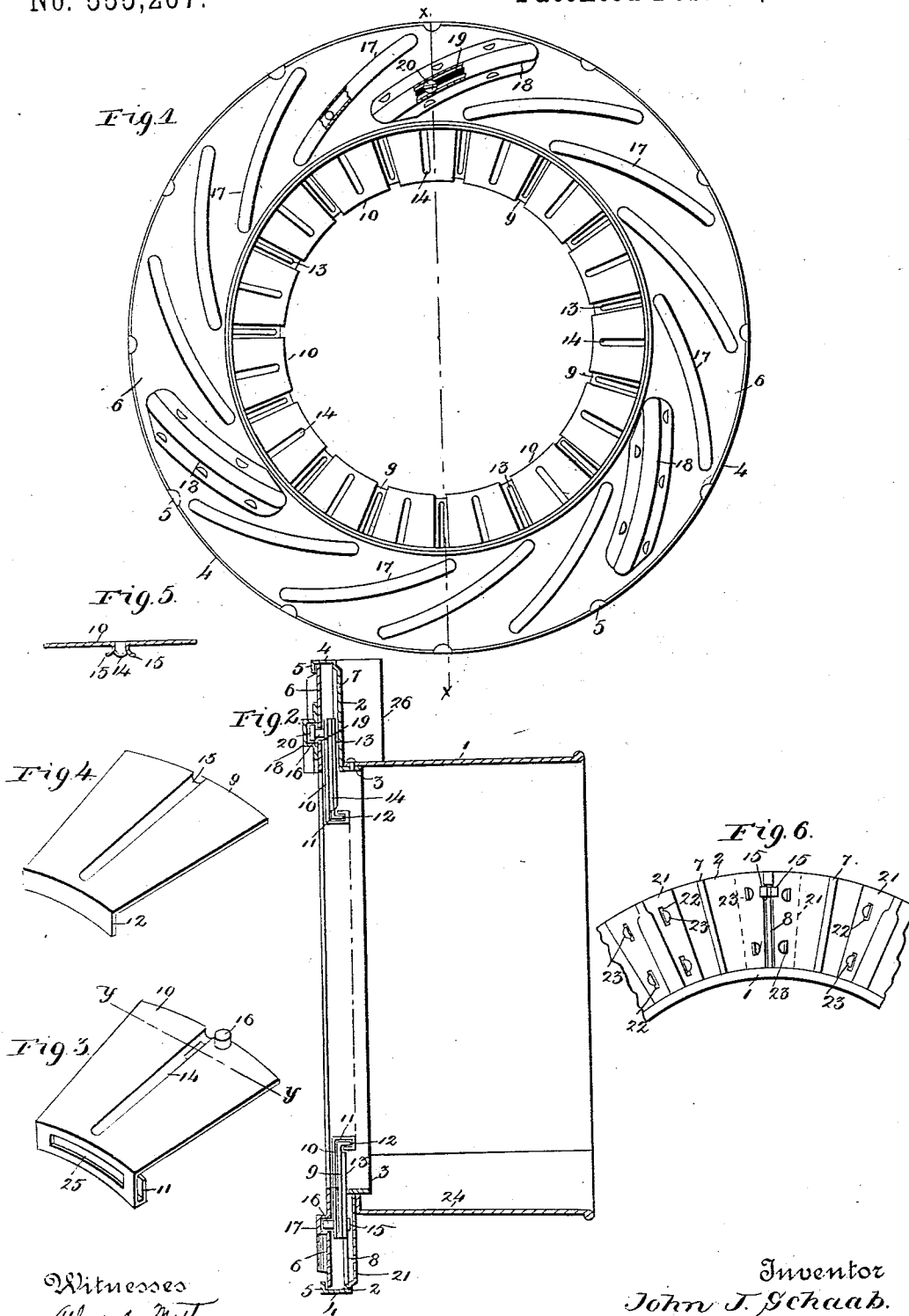


(No Model.)

J. J. SCHAAB.
STOVEPIPE THIMBLE.

No. 555,267.

Patented Feb. 25, 1896.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN J. SCHAAB, OF ST. LOUIS, MISSOURI.

STOVEPIPE-THIMBLE.

SPECIFICATION forming part of Letters Patent No. 555,267, dated February 25, 1896.

Application filed June 20, 1895. Serial No. 553,430. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. SCHAAB, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Stovepipe-Thimbles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in stovepipe-thimbles; and it consists in the novel arrangement and combination of parts more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a front elevation of the improved thimble. Fig. 2 is a vertical section on line *xx* of Fig. 1. Fig. 3 is a perspective view of one of the outer assembling segments. Fig. 4 is a perspective view of one of the inner assembling segments. Fig. 5 is a section on line *yy* of Fig. 3, and Fig. 6 is a rear view of a portion of the stationary plate which guides the assembling segments.

The present device is an improvement on the adjustable thimble described in my pending application, Serial No. 534,627, filed January 12, 1895, and has for its object to materially simplify the construction therein set forth, making the adjustments thereof more positive and reducing the friction among the several parts.

In detail the present device may be described as follows: Referring to the drawings, 1 represents a thimble, to the outer edge of which is secured an annular plate 2, said plate being secured to the thimble by a flange 3 formed integrally with said plate. The plate 2 constitutes the stationary portion of the adjustable feature of the thimble. It is provided with an outwardly-turned peripheral flange 4, whose free edge is provided with a series of inwardly-turned lips 5, between which lips and the inner surface of the flange 4 is adapted to rotate an outer annular operating disk-plate 6 of substantially the same width as the plate 2. The plate 2 is provided with or has stamped thereon a radiating series of grooved depressions or guideways 7, all radiating toward the common center of the thimble and plates carried by it, every alternate groove being cut away for a portion

of its length to form a perforated guideway 8. (See Fig. 6.)

In the space formed between the plate 2 and the operating-plate 6 are inserted a series of outwardly or radially diverging metallic assembling segments 9 and 10, respectively, the outer series, 10, having each formed at its narrow end a groove 11 for the reception of the tongue 12 of the next succeeding strip 9 of the series. When the segments are assembled they of course work one within the other by reason of the tongue-and-groove connection at the bases of such series. As subsequently to be explained, the segments simultaneously move to and from the axis of the thimble according to the direction to which the same are adjusted with the variable diameters of the pipes over which the thimble may be passed. Each segment 9 is provided with an outwardly-punched guide-rib 13, which operates in the grooved depression 7 of the plate 2, and thus guides the segment 9 in its movements to and from the axis of the thimble, and each segment 10 is provided with a corresponding rib 14 similarly operating in the perforated guideway 8; but to better hold the coupled series of segments to their plate 2, and within the guideways thereof, each rib 14 has punched therefrom the oppositely-tending lips 15, which are bent back to overlap the longitudinal opposite edges of the slot 8. (See Fig. 6.) By this arrangement the entire series of segments is better retained along the rear or inner surface of the stationary plate 2.

Each segment 10 is provided along its expanded edge and adjacent to the rib 14 with a finger or knob 16, each such finger being adapted to ride in the controlling-groove of a rib 17 stamped in the plate 6. The series of ribs 17 are disposed about the face of the plate 6, along lines substantially tangent to the inner circle of the said plate. The plate 6 is provided with a series of handles 18, by which it may be grasped and turned in either direction within the flange 4 of the stationary part or plate 2 of the thimble. Now, if we seize a pair of the handles 18 and turn the operating-plate 6, for example, to the left or contrary to the direction of motion of the hands of a watch, then the finger 16 of each seg-

ment 10 will, during the rotation of the said plate, be forced to follow the path of the groove formed by the ribs 17—that is to say, the finger 16 will climb up along said groove, causing the segment 10 which carries it to move outwardly along the slot 8 of the plate 2 within which it is guided, and causing the segment 9 to move outwardly along the depression 7 by which it is guided, the two series of segments moving simultaneously outwardly by reason of the manner in which they are coupled together. If the plate 6 be turned in the opposite direction or to the right the reverse of the operations just explained will take place, the fingers 16 climbing down the inclined grooves formed by the ribs 17, and the segments moving toward a common center or toward the axis of the thimble, thus closing snugly over any pipe that may have been inserted into the thimble. Immediately beneath each of the hollow handles 18 the rib 17 is cut away, leaving a slot 19 which takes the place of the groove, the fingers 16 in each of these cases being provided with a head 20 overlapping the edges of the slot, this arrangement serving to make a better connection between the plate 6 and the segment series and preventing the intermediate fingers not provided with heads from accidentally working out of their tangent controlling-grooves, a thing liable to happen should the metal of the plate 6 accidentally be bent from the finger by any undue strain to which the parts may be subjected.

To prevent the ribs 14 with their lips 15 from being exposed at the rear of the plate 2, I cover the exposed portions by the small segmental cover-plates 21 centrally depressed to accommodate the protruding rib 14 of each segment 10, and secured to the rear surface of the plate 2 by having passed through suitable openings 22 of the cover-segments the lips or burs 23 punched from the metal of the plate 2 and then bent back parallel to the face of the said plate. (See Fig. 6.) The present thimble is provided at the bottom with a basal trough 24 into which dirt and water and other accumulations may be carried from the chimney or flue and from which they may be subsequently removed.

The exposed wall of each groove 11 of the segment 10 is provided with a cut-away portion or opening 25, (see Fig. 3,) so that any accumulations of dirt finding their way into the groove and around the tongue 12 operating in the same may readily be scraped out. The thimble is inserted into the flue or chimney opening to a distance determined by the limiting-strips 26 carried by the rear surface of the stationary plate 2. The pipe is then inserted into the circle formed by the reduced ends of the assembling segments, when the operator by seizing the handles 18 can turn

the plate 6 in proper direction to assemble the segments snugly about the pipe thus inserted.

Having described my invention, what I claim is—

1. A stovepipe-thimble comprising a suitable annular stationary plate, radiating guides formed thereon, an annular adjacently-located rotatable plate co-operating with said stationary plate, a series of interlocking segments for said thimble interposed between the two plates, means carried by said segments and co-operating with the guides of the stationary plate for properly directing the movements of the segments, a series of curved grooves or guides being formed on said rotatable plate for controlling the segments, substantially as set forth.

2. A stovepipe-thimble comprising a suitable annular stationary plate, radiating guides formed thereon, an outwardly-extending flange forming a part of said plate, a rotatable plate mounted within said flange, a series of interlocking assembling segments interposed in the space formed between the two plates, and having ribs operating in the guides of the stationary plate, a finger carried by each of the outer series of assembling segments, a series of tangentially-disposed curved grooves or guideways being formed in the rotatable plate for receiving the fingers carried by the segments, substantially as set forth.

3. In a stovepipe-thimble, a stationary plate, having a series of radiating alternating slotted guideways and depressed grooves disposed about the same, a series of interlocking assembling segments having respectively each a rib co-operating with the grooved depressions, and a rib having a portion provided with oppositely-extending lips adapted to overlap the longitudinal edges of the slotted guideways for confining the series of segments to the stationary plate, and a rotatable plate carried by the stationary plate and controlling the simultaneous movement of the several segments, substantially as set forth.

4. In a stovepipe-thimble, a stationary plate, assembling segments carried by and guided by the same, a rotatable plate, fingers carried by the assembling segments, slotted guideways being formed on the rotating plate for receiving the fingers, a head carried by each finger which co-operates with the slotted guideway, and a suitable handle mounted on the rotatable plate directly over the slotted guideway, substantially as set forth.

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

JOHN J. SCHAAAB.

Witnesses:

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