H. B. TODD.

STOVE-PIPE DAMPER.

No. 192,395. Patented June 26, 1877.

Fig. 1.

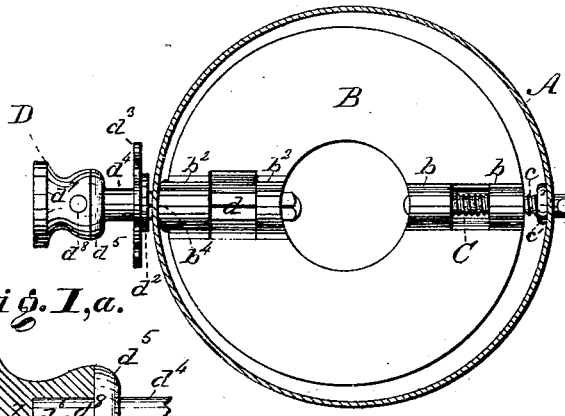


Fig. 1,a.

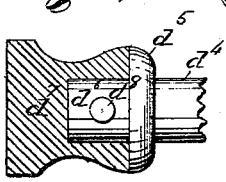


Fig. 1,b.

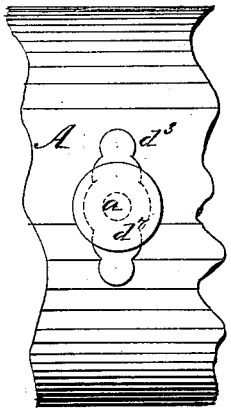


Fig. 2.

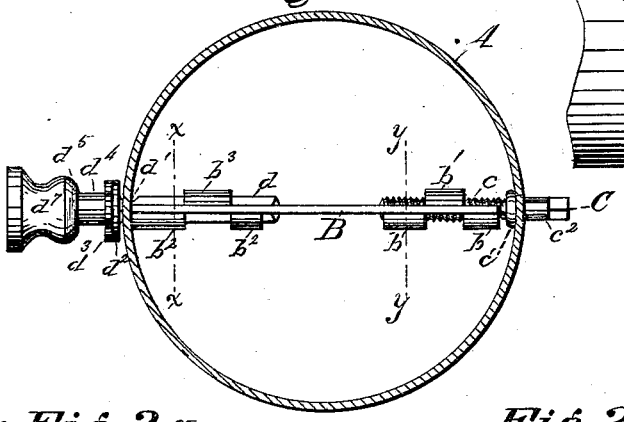


Fig. 2,a.

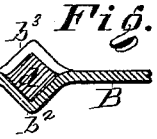


Fig. 2,b.

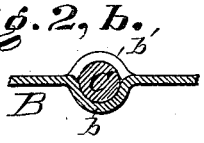
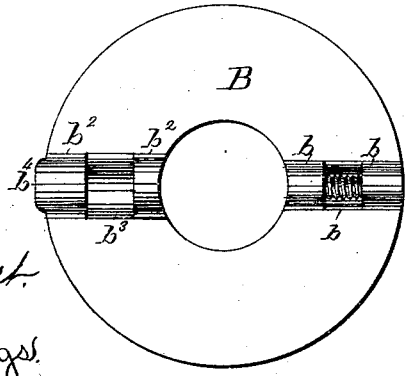


Fig. 3.



WITNESSES:

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ATTYS.

UNITED STATES PATENT OFFICE.

HENRY B. TODD, OF WEST MERIDEN, CONNECTICUT, ASSIGNOR OF ONE-HALF HIS RIGHT TO A. W. TODD, OF SAME PLACE.

IMPROVEMENT IN STOVE-PIPE DAMPERS.

Specification forming part of Letters Patent No. **192,395**, dated June 26, 1877; application filed March 29, 1877.

To all whom it may concern:

Be it known that I, HENRY B. TODD, of West Meriden, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Stove-Pipe Dampers; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention consists, mainly, first, in the employment of an adjusting device of special construction for giving the damper the necessary friction to hold it against accidental movement; and, second, in the special construction of the handle for turning the damper.

It further consists, also, in other details of construction, all of which will be fully described hereinafter.

In the drawings, Figures 1 and 2 represent transverse sections of a stove-pipe, showing the damper in a vertical and horizontal position, respectively; Fig. 3, a side view of the damper-plate detached; Fig. 1_a, a vertical longitudinal section of the damper-handle, showing the attachment of the shank; Fig. 1_b, a side view of a stove-pipe, showing the handle and pointer; and Figs. 2_a and 2_b, sections through the lines *x x* and *y y* of Fig. 2, respectively.

To enable others skilled in the art to make and use my invention, I will now proceed to describe fully its construction and manner of operation.

A represents a section of a stove or other pipe, constructed of any proper diameter and length, and of any suitable material, which is provided with the openings *a a* on opposite sides, as shown. B represents the blade or damper proper, constructed generally in any approved form and of any proper materials, either cast or wrought, which is essentially provided upon one side of a central line with the semicircular portions *b b* b^1, raised upon each face of the plate in opposite directions, as shown, and upon the other with the angular portions b^2 b^2 b^3, raised in a similar manner. The semicircular portions are provided upon their adjacent faces with screw-threads, by which means a proper socket is provided for the adjusting-screw hereinafter referred to. b^4, Figs. 1 and 3, represents a portion of the blade, which projects outward from its true circumferential line, for purposes hereinafter explained. C represents the adjusting-screw, which is constructed with a threaded portion, *c*, adapted to engage with the screw-threads of the raised portions *b* b^1 of the blade; a shoulder, c^1, adapted to bear, when in place, against the inner wall of the pipe, as shown; and a head, c^2, which may be provided either with an opening, c^3, Fig. 1, to permit the insertion of a rod to turn the same, a square head to receive a wrench, or a slot to receive a screw-driver or equivalent device. D represents the handle, consisting of an angular shank, *d*, adapted to fit the corresponding raised portions on the damper; an annular recess or groove, d^1, Fig. 2, adapted to receive the edge of the pipe inclosing the opening through which the handle extends; a shoulder, d^2, adapted to bear against the outer wall of the pipe; a pointer or index, d^3, to indicate the position of the damper; and an extension, d^4, having a flange, d^5, and shaft or tenon d^6, which latter supports the knob or handle proper d^7, secured thereto by the pin d^8, as shown.

By means of the construction descri[illegible] metal portion of the handle, which, of course, becomes heated readily by conduction, is inclosed by the wooden knob, and, consequently, as the latter is grasped by the fingers to turn the damper, there is no danger of burning them. A very strong connection, also, is thus made between the wood and metal by very simple means.

The operation of the parts described will be readily understood.

By turning the adjusting-screw in the proper direction the projection b^4 of the damper may be caused to bear with sufficient pressure upon the adjacent wall of the pipe to prevent accidental movement. The damper is caused to travel in a lateral direction when the adjusting-screw is turned, because the screw itself has no longitudinal movement, it being held by the contact of its shoulder with the

inner wall of the pipe, and here the damper must yield to the action of the screw-threads.

The adjustment of the damper by the handle does not differ materially from the ordinary manner.

Some of the advantages of construction are as follows: The parts are simple in construction, easily put together, and not liable to get out of order. Very effective results are obtained. The damper is easily adjusted, and when adjusted is positively held against accidental movement in any position in which it may be placed. The handle is held from displacement by the groove in its shank. It may be operated without burning the fingers, the iron being wholly inclosed in the wood. The round form of the handle makes it more convenient for operation, while the pointer indicates accurately the position of the damper.

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

1. In combination with the blade, having the projecting portion b^4 upon one side, the adjusting-screw C, attached to the other side, and adapted to determine the amount of friction, substantially as described.

2. In combination with the blade, having the raised projections provided with screw-threads, and the projecting portion b^4, the adjusting-screw C, having the shoulder c^1, as described.

3. In combination with the blade having the angular raised portion, as described, and the stove-pipe having the proper opening, the handle D, having the angular shank d, and also the circular recess d^1, adapted to receive the edge of the stove-pipe opening, as described.

4. In combination with the metal shank d^4, having the flange d^5, the wooden knob d^7, inclosing the metal, as described.

5. The combination of blade B, the adjusting-screw C, and the handle D, substantially as described.

This specification signed and witnessed this 19th day of March, 1877.

HENRY B. TODD.

Witnesses:
E. A. MERRIMAN,
JAS. H. JOHNSON.