(Model.)

S. G. SEARIGHT.

REVERTING DAMPER FOR STOVE PIPES AND DRUMS.

No. 245,405. Patented Aug. 9, 1881.

Fig. 1.

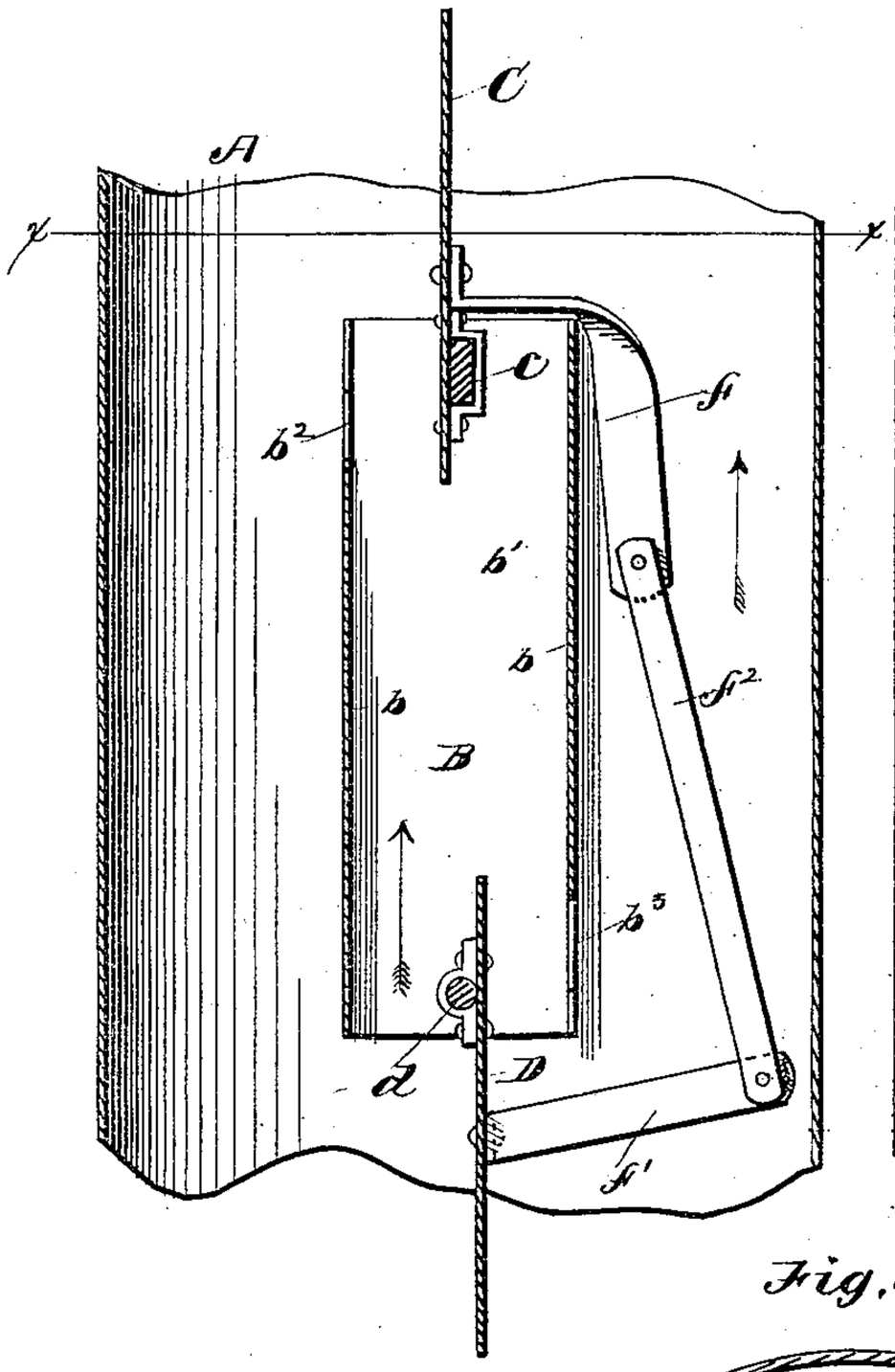


Fig 2

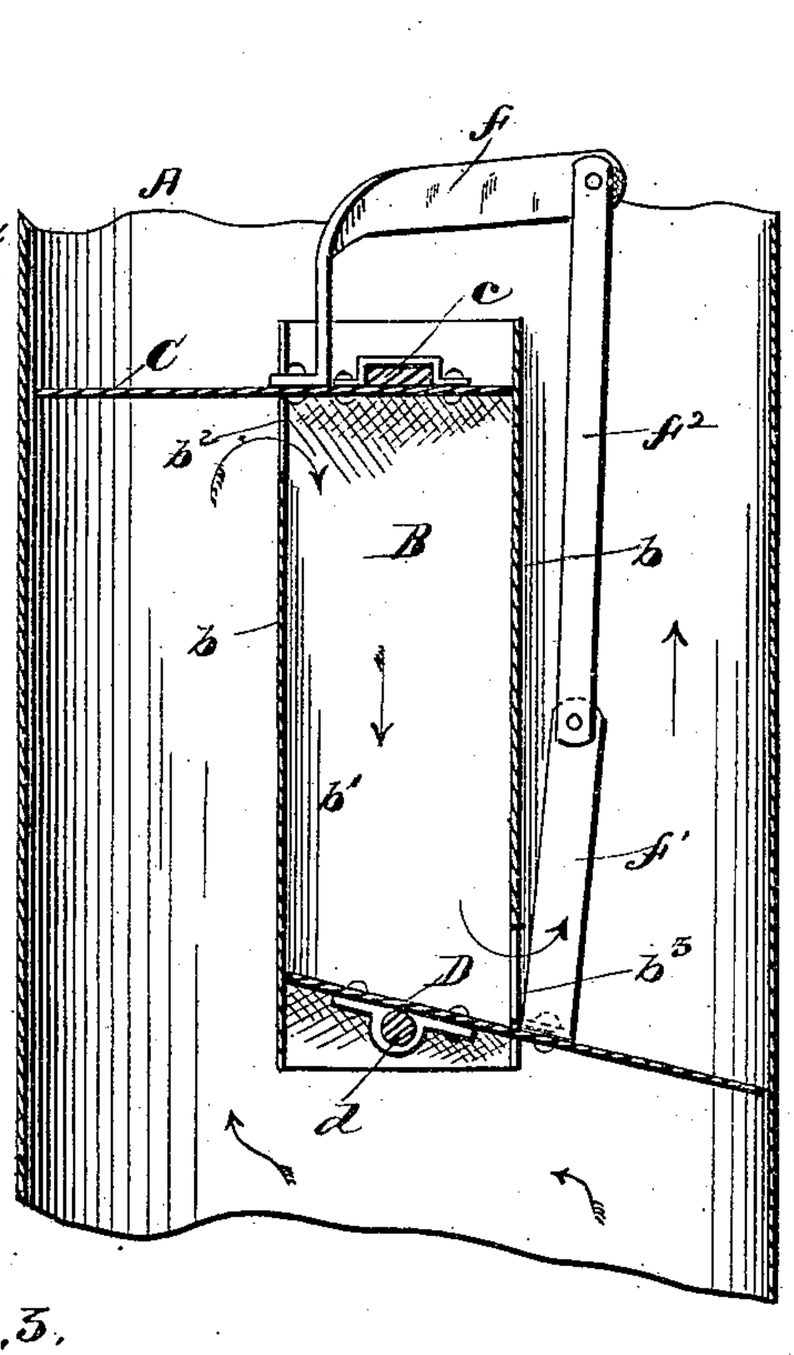
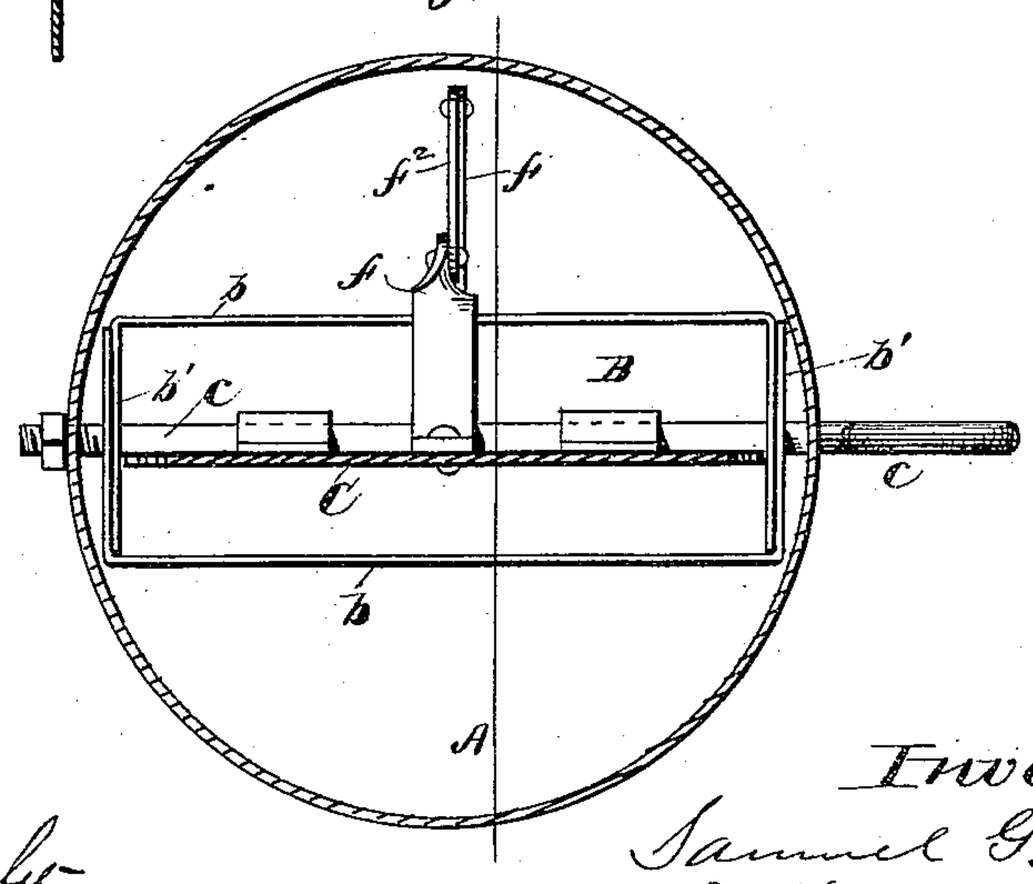


Fig. 3.



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SAMUEL G. SEARIGHT, OF BUTLER, INDIANA.

REVERTING DAMPER FOR STOVE PIPES AND DRUMS.

SPECIFICATION forming part of Letters Patent No. 245,405, dated August 9, 1881.

Application filed February 14, 1881. (Model.)

To all whom it may concern:

Be it known that I, SAMUEL G. SEARIGHT, of Butler, De Kalb county, Indiana, have invented a certain new and Improved Reverting Damper for Stove Pipes and Drums; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents the damper opened; Fig. 2, the same closed; and Fig. 3 is a sectional view, taken on the line *x x*, Fig. 1, showing the construction of the damper-casing.

Similar letters of reference in the several figures denote the same parts.

My invention has for its object to provide an improved damper for stove pipes and drums that can be easily applied and removed, and which, when opened, will permit free and direct passage of heat and other products of combustion through the stove pipe or drum, but when closed will permit only an indirect or reverted passage of said heat and products.

To this end the invention consists, primarily, of a box or chamber adapted to be inserted in the stove pipe or drum, having its ends closed by valves and openings in its opposite sides for the admission and escape of the heat and other products when the valves are closed; secondly, in the manner of constructing the box or chamber; thirdly, in so connecting the dampers at the opposite ends of the box or chamber that they may be made to operate simultaneously; and, fourthly and lastly, in the general combination of parts, all as I will now proceed to describe.

In the drawings, A represents an ordinary stove-pipe provided with my attachment. B is the box or chamber of the attachment, and C D the valves.

The box or chamber is constructed of sheet or cast metal and of any suitable form, though preferably of rectangular. It is by preference made in two sections, each of which consists of a side, *b*, and two end flanges, *b' b'*, the end flanges of one section overlapping or embracing those of the other section, and both being secured together by the rods *c d*, upon which the valves C D are respectively mounted. Each valve is substantially semicircular in form, and is adapted to be closed down, so as to effectively cover the end of the chamber with its inner portion, and to form a joint against the stove-pipe with its outer curved portion, as shown in Fig. 2. An opening, b^2, is formed in that side of the chamber against which the valve C closes, near the said valve, as shown in Fig. 2, and a similar opening, b^3, is provided in the opposite side of the chamber at the other end, near the valve D. When both valves are open, as shown in Fig. 1, free and direct passage of heat, smoke, &c., is permitted up through the pipe or drum and through the chamber; but when the valves are closed, as in Fig. 2, the only avenue of escape is through the opening b^2, back down through the interior of the chamber B, and out again through the opening b^3. While the closing of the valves does not entirely cut off the flow through the pipe and drum, it retards such flow sufficiently to secure by radiation the benefit of heat which would otherwise pass out of the pipe or drum unutilized, thereby effecting a great saving.

Independent means may be provided for operating the valves, if desired, though I prefer to so connect them that they will open and close together. One way of effecting such simultaneous operation is by securing a bent arm, *f*, to the valve C and another arm, *f'*, to the arm D and connecting said arms by an articulated rod, f^2, as shown.

The rod *d* is preferably headed at one end and screw-threaded at the other to receive a nut or burr, while the rod *c*, besides serving as means for securing the parts of the chamber or box together and supporting the valve C, also serves as means for holding the attachment in position within the pipe or drum and for operating the valves.

The attachment is to be made and furnished to the trade in various sizes, and can be easily applied by workmen not specially skilled.

Having thus described my invention, I claim as new—

1. A damper for stove pipes and drums, consisting of a box or chamber having valves at its ends, which, when closed, prevent direct passage through the chamber, and also cut off direct passage through the pipe or drum in which the device is located, and having open-

ings in its opposite sides, by means of which an indirect passage is afforded through the box or chamber when the valves are so closed, substantially as described, for the purpose specified.

2. In dampers for stove pipes and drums, a chamber adapted to be inserted within the pipe or drum, valves adapted to close the ends of the chamber and to project laterally on opposite sides against the inside of the pipe or drum, and openings in opposite sides of the chamber near the valves, substantially as described, for the purpose specified.

3. In dampers for stove pipes and drums, a chamber adapted to be inserted within the pipe or drum, valves which operate to close the ends of the chamber, and which project laterally on opposite sides against the inside of the pipe or drum, openings in opposite sides of the chamber near the valves, and means for opening and closing the valves simultaneously, substantially as described, for the purpose specified.

4. The combination, with the chamber B, having the openings b^2 b^3 in its opposite sides, of the hinged valves C D, and means for connecting and operating them simultaneously, substantially as described.

5. The combination, with the box or chamber B, having the side openings, of the valves C D, the arms $f f'$, and the connecting-arm f^2, substantially as described, for the purpose specified.

6. The chamber or box B, made in two parts or sections, held together by the removable rods c d, substantially as described.

7. The combination, with the stove pipe or drum, of the chamber B, having the openings in its opposite sides, the valves C D, the rod d, operating to secure the parts of the chamber and to carry the valve D, and the rod C, operating to secure the parts of the chamber and to carry the valve C, and affording means whereby the attachment is held in the pipe, and also as means for operating the valves, substantially as described.

SAMUEL G. SEARIGHT.

Witnesses:

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