ALBERT TRACY.

Improvement in Dampers.

No. 115,135. Patented May 23, 1871.

Fig. 1.

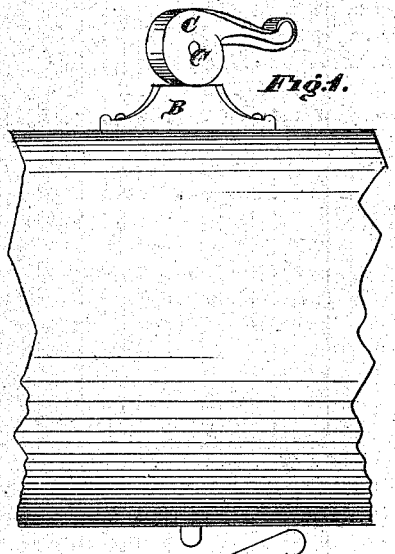


Fig. 2.

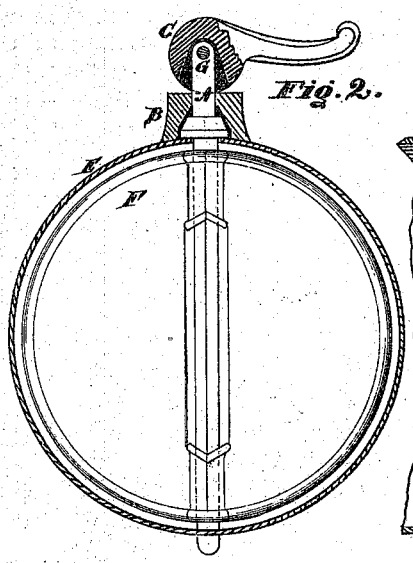


Fig. 3.

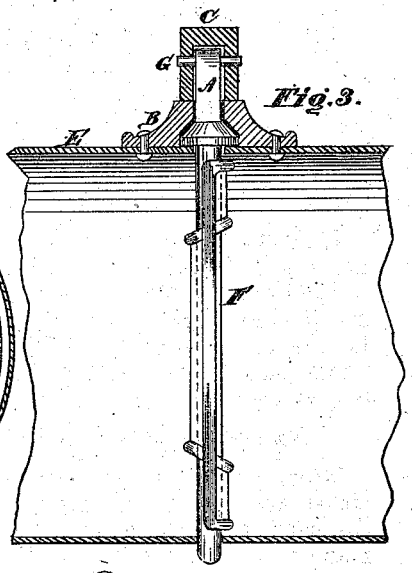


Fig. 4.

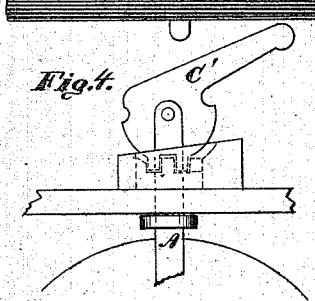


Fig. 6.

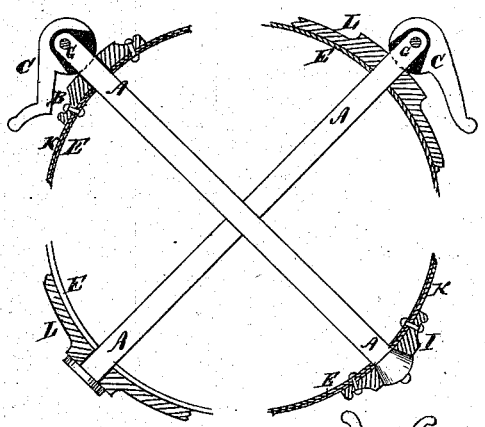
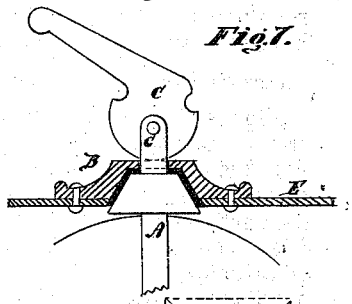


Fig. 5.

Fig. 7.



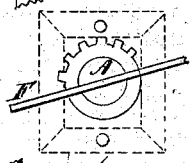


Fig. 8.

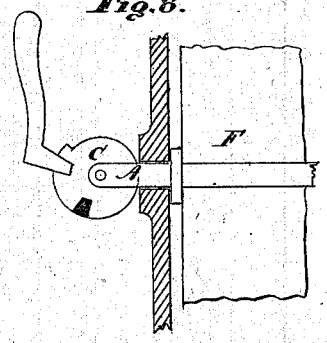
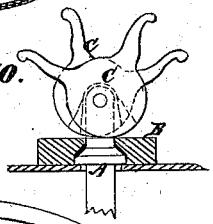


Fig. 10.



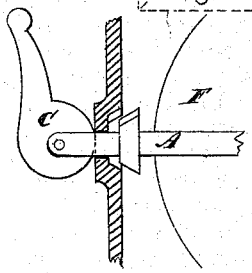
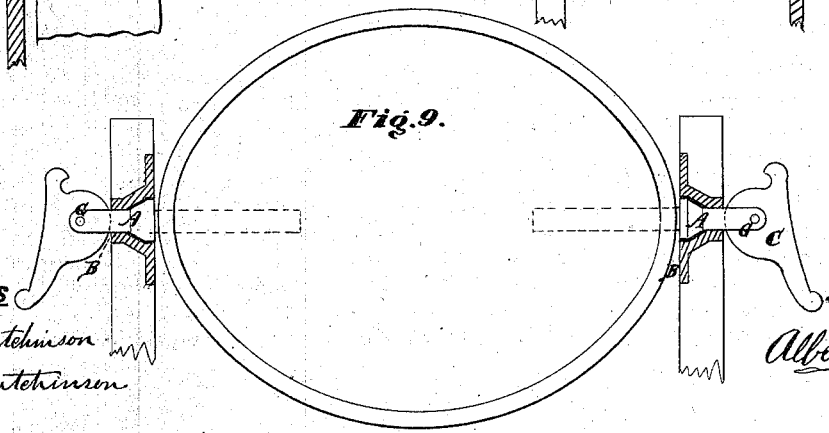


Fig. 9.



Witnesses

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UNITED STATES PATENT OFFICE.

ALBERT TRACY, OF PARIS HILL, MAINE.

IMPROVEMENT IN DAMPERS.

Specification forming part of Letters Patent No. 115,135, dated May 23, 1871.

I, ALBERT TRACY, of the United States army, now resident at Paris Hill, in the county of Oxford and State of Maine, have invented certain Improvements in "Sets" or Fasteners for Dampers in Stoves, Stove-Funnels, Furnaces, and the like, of which the following is a specification:

Nature and Objects of the Invention.

My invention relates to the combination of either an eccentric or right-line wedge with the shaft or bolt upon which the damper is made to turn in such manner as that, when revolved to any given point, it may be set or held in position.

Description of the Accompanying Drawing.

Figure 1 is a perspective view of the eccentric or damper-set embodying my invention. Fig. 2 is a vertical section, showing the methed of attaching the eccentric or damper-set to the shaft-head and the operation thereof. Fig. 3 is a vertical cross-section, showing method of attaching eccentric or damper-set to shaft-head and operation thereof. Fig. 4 is a vertical section of right-line wedge as operated by cog or cogs pertaining to handle or lever. Fig. 5 is a modification, with a button or cone inverted upon the further end of shaft, as also with cast-iron band about pipe. Fig. 6 is a modification, with band of stove-pipe material and additional block for holding. Fig. 7 is a modification, showing the eccentric or damper-set affixed to side of shaft. Fig. 8 is a modification, showing eccentric or damper-set as operated by handle unattached. Fig. 9 is a modification, showing plane with two bolts and two eccentrics, one at either side. Fig. 10 is a modification, showing double eccentrics affixed to the same shaft.

General Description.

A is the shaft or bolt, metallic, upon which the damper turns. The shoulder fitted to prevent the body of the shaft from entering too far into the pipe is, at its outer face, beveled to an angle sufficient to give it a good holding surface. At the neck the shaft is flattened to a moderate extent, and near the head is made a perforation transverse to the axis to admit of a pivot, G. B is a metallic block, fitted at the inner face to the curve of the pipe, and having at its center a circular hole, reamed out or beveled next the pipe, to receive the shoulder of the shaft A. Smaller holes at the ends or sides, or both, are intended for rivets. C is the eccentric or damper-set or fastener. It is constructed at the point essential to act or operate in the form of the whole or a portion of a circle, eccentric to the point of turning. A handle or lever of convenient form and length extends in any given direction from the outer face or curve of the eccentric. Underneath, or elsewhere about the circle, if desirable, is hollowed a mortise or opening, and at the center of a circle inferior to the eccentric and tangent within it a transverse hole corresponds in size with the hole in the head of shaft A for pivot G. Pivot G in place, and the body of shaft A being passed through the pipe E and damper F to the hole for the reception of its lesser end in the opposite side or at the base, and the block B being brought up and made fast with rivets through its smaller holes, it follows that any depression of the handle or lever of the eccentric or damper-set C, by wedging up and bringing firmly into contact the bevel of the shaft-shoulder with the ream or socket of the holding-block B, tends immediately to fix and secure in position both the shaft and damper F as attached. An opposite movement or elevation of the handle or lever of the eccentric or damper-set relieves the pressure, leaving free both damper and shaft to be turned to the right or left by the same appliance, and, if desirable, reset. The eccentric may be made to operate at any given point above or below, or at either side, lifting or pushing outward, or pressing downward, according as adapted by contact, either with portions of the shaft or with the holding-block, while it may also embrace or be embraced by the bolt or shaft-head, or may be affixed at the side, Fig. 7. The handle or lever of the eccentric may be at either side, or at the top, or two or more projections may be adopted in lieu of a single handle. Again, the handle of the eccentric or damper-set may be wholly detached, forming a second piece, and made to operate by insertion into a second mortise or cavity, or between projections at the sides or on the outer curve of the eccentric, Fig. 8. When, in preference to the eccentric or circular form of

wedge, a wedge of right lines is to be used, Fig. 4, it may be pushed forward or drawn backward and made to fix or release the damper by the operation of cogs, or their equivalent, upon a concentric with handle or lever, as aforesaid, either fixed or detached. The shaft may extend intact from the eccentric through the holding-block and pipe, with a button or shoulder, beveled or otherwise, to bear against a second block, I, from without, Fig. 6, as under operation of the wedge or damper-set. This second block I, also, with its mate B, may be attached to a band, K, of stove-pipe material, to be slipped on or bound around the original pipe; or a solid band, L, may be cast to embrace in like manner the whole, and thus do away with the necessity of other form of purchase at either side, Fig. 5. The damper-set when used in or about the more solid portions of stoves, furnaces, and the like, and for fixing in position dampers for the direction or shutting off of flame and heat, may find similarly ample purchase against the walls or castings themselves, and especially with a slight elevation provided for the contingency. If needful, bolts or shafts may be inserted into dampers from opposite sides, and eccentrics or wedges of right lines attached from without to each, to give a double strength and steadiness.

My invention applies with equal value and effect not only to dampers in and about stoves, furnaces, and the like, but to any form of appliance or appurtenance, being in the nature of a plane, revolving or turning centrally upon pivots, and requiring at times to be fixed or set at given inclinations or angles. Of this nature are mirrors upon bureaus, dressing-cases, &c., Fig. 9, ventilators, sashes of the lighter sort; blinds with their planes attached and revolving in a series or outside of these eccentrics, or their equivalent, may be attached as sets or checks to rollers for curtains or other light cylinders, &c.

If desirable, in addition to the foregoing, the button or shoulder of the damper-shaft A may be notched, or cogged, or grooved, to be fixed at special points or angles, gaining thus an immovable firmness, the eccentric or wedge being, in this latter case, adapted by contact both above and below, and upon both shaft and holding-block, to push inward or draw outward to a distance sufficient for relieving or making fast in its position the projection into or out of the shaft or button. Again, for strength or convenience double eccentrics may be used on the same shaft, Fig. 10.

Claims.

I claim as my invention—

1. The combination of the eccentric C and the shaft A with the block B, substantially as and for the purpose hereinbefore set forth.

2. The combination of the wedge of right lines and the shaft A with the block B and handle, with cog or cogs, substantially as and for the purpose hereinbefore set forth.

3. The combination of either the eccentric C or wedge of right lines and the shaft A with the blocks B and I, or either of them, or with the band K or the band L, substantially as and for the purpose hereinbefore set forth.

4. The combination of the eccentrics C or C′ and the shaft A, with or without blocks or bands, and with handle of eccentric attached or unattached, substantially as and for the purpose hereinbefore set forth.

5. The combination of the eccentric C′ or wedge of right lines with the shaft A, with or without button or cone inverted at further end, and with or without notch, or cog, or groove, substantially as and for the purpose hereinbefore set forth.

ALBERT TRACY.

Witnesses:
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