

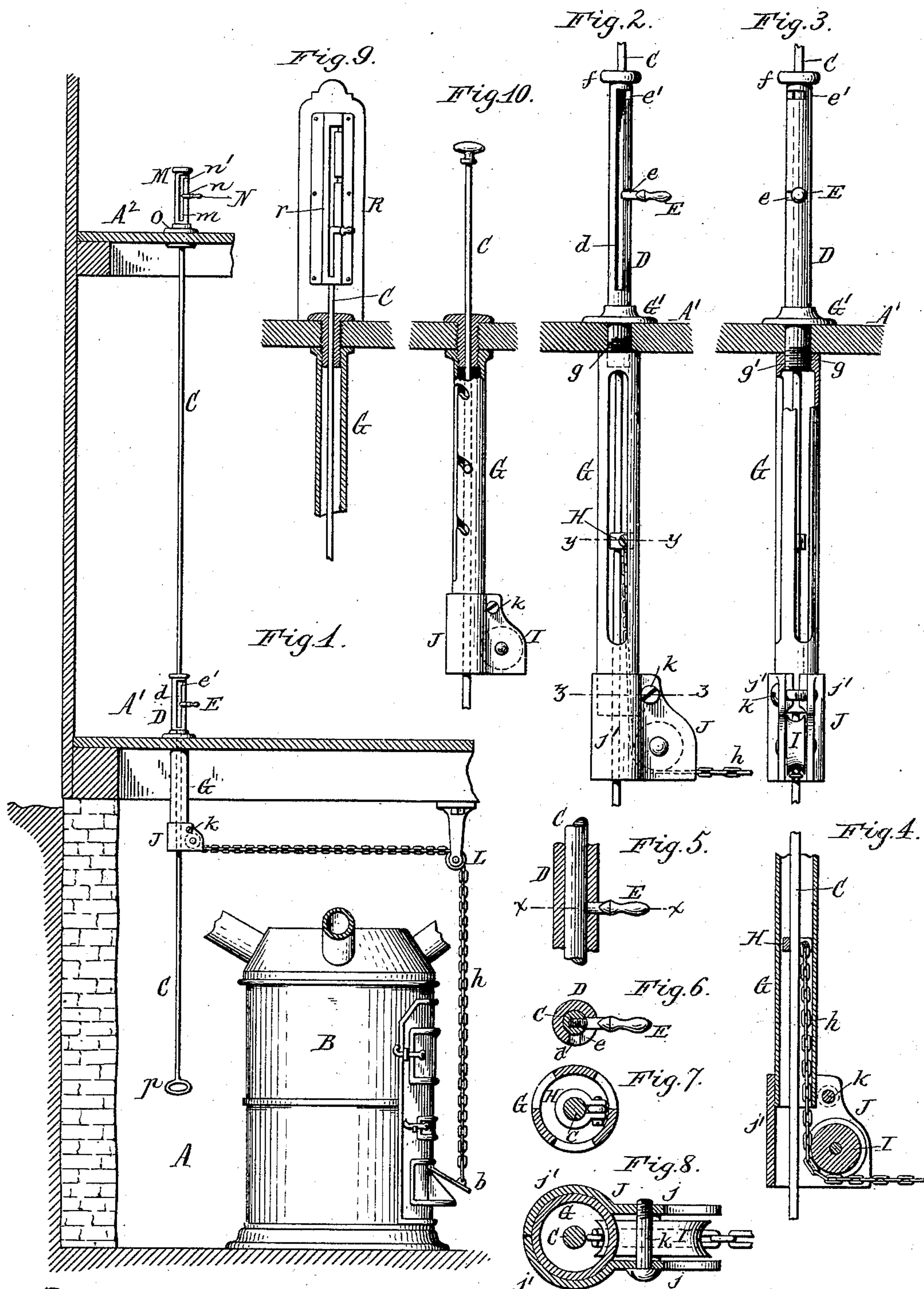
(No Model.)

F. A. GARRETT.

ADJUSTING DEVICE FOR DAMPERS.

No. 378,671.

Patented Feb. 28, 1888.



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UNITED STATES PATENT OFFICE.

FRANK A. GARRETT, OF SYRACUSE, NEW YORK.

ADJUSTING DEVICE FOR DAMPERS.

SPECIFICATION forming part of Letters Patent No. 378,671, dated February 28, 1888.

Application filed February 3, 1887. Serial No. 226,404. (No model.)

To all whom it may concern:

Be it known that I, FRANK A. GARRETT, of the city of Syracuse, in the county of Onondaga and State of New York, have invented new and useful Improvements in Adjusting Devices for Dampers, of which the following is a specification.

This invention relates to that class of devices which are employed for adjusting the dampers or valves of furnaces, stoves, and other apparatus from convenient points located at a distance from the dampers or valves, more especially from the different floors of a building.

The object of this invention is to produce a simple device which can be conveniently placed in position in a building and by which the damper or valve can be adjusted and locked in position from the floor on which the damper or valve is located and from any other floor with which the adjusting device is connected.

My invention consists of the improvements, which will be hereinafter fully set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a fragmentary sectional elevation of a building provided with my improved damper-adjusting device. Fig. 2 is a side elevation of the adjusting device. Fig. 3 is a front elevation thereof. Fig. 4 is a sectional elevation of the lower portion of the adjusting device. Fig. 5 is a fragmentary sectional elevation of the upper portion of the adjusting device. Fig. 6 is a horizontal section in line *xx*, Fig. 5. Figs. 7 and 8 are horizontal sections in lines *yy* and *zz*, Fig. 2, respectively, on an enlarged scale. Figs. 9 and 10 are sectional elevations showing modified constructions of the adjusting device.

Like letters of reference refer to like parts in the several figures.

A represents the basement or cellar floor of a building, A' the first floor, and A² the second floor.

B represents a furnace arranged on the basement-floor A, and provided with a damper, *b*, which closes by gravity when released.

C represents the vertical adjusting-rod extending from the basement upwardly through the several floors from which it is desired to adjust the damper.

D represents a hollow or tubular standard

arranged on the first floor, A', and surrounding the adjusting-rod C.

d represents a vertical slot formed in the standard D and provided with horizontal branch slots or recesses *ee'* at different heights.

E is a horizontal handle or projection secured to the adjusting-rod C and moving in vertical slot *d* when the rod is moved vertically. The branch slots *ee'* are made of such size that the handle can be introduced into either of these branch slots by a slight turning or rotary movement of the rod, thereby supporting the rod at different elevations. The upper end of the standard may be provided with a perforated cap, *f*. The lower end of the standard projects below the floor A' and is provided with a screw-thread, *g*.

G represents a tubular casing which surrounds the adjusting-rod C below the standard D, and which is provided at its upper end with an internal screw-thread, *g'*, by which it is secured to the lower screw-threaded portion of the standard D, as represented in Figs. 2 and 3, thereby securing the standard to the floor A'. The standard is provided above the floor with an enlarged base or collar, G', which rests on the floor.

H represents a collar which is secured by a clamping-screw to the adjusting-rod C within the tubular casing G, and *h* is a chain, cord, or cable connecting the collar H with the damper *b*.

I represents a guide-pulley mounted on the lower end of the casing G by means of a bearing, J, which is adjustably secured to the casing. The casing G is composed of two arms, *jj*, provided with sockets, in which the journals of the pulley I rotate. The arms *jj* are provided with concave bearing-surfaces *j'j'*, which are applied to opposite sides of the tubular casing G, as represented in Fig. 8, and which are tightened against the casing by a clamping-screw, *k*. Upon loosening this screw the bearing J can be turned on the casing, or may be raised and lowered on the casing, as may be necessary, in order to place the pulley in the required position for guiding the chain properly. The chain *h* runs from the collar H around the lower side of the pulley I, and thence over a guide-pulley, L, which is arranged over the damper.

M represents a standard arranged on the up-

per floor, A^2 , and surrounding the adjusting-rod C. The standard M is provided with a vertical slot, m , and horizontal branch slots n n' , corresponding with the vertical slot d and the branch slots e e' of the standard D. The adjusting-rod C is provided with a horizontal handle or projection, N, which moves in the vertical slot m of the standard M and can be locked into either of the branch slots n n' . The standard M is secured to the floor A^2 by means of its base-flange O. A similar standard is provided on each succeeding floor from which it is desired to adjust the damper. The branch slots are arranged at the different heights at which the adjusting-rod C is required to be held in order to hold the damper in the various desired positions. The lower end of the adjusting-rod is provided on the furnace-floor A with a handle, p . By turning the adjusting-rod on either floor the rod is disengaged from the branch slots of all the standards and released, so that it can be raised or lowered, as may be required, for adjusting the damper. After the damper has been adjusted the rod is locked in position by a backward turn, which engages the projections on the rod with the branch slots with which the projections coincide. By this means the damper is easily adjusted and locked in position from either floor.

The casing G extends below the joists of the floor to which it is secured, so that the pulley-bearing J clears the joists, as represented in Fig. 1, thereby permitting the chain to be run underneath the floor in any direction.

The damper b , as shown in the drawings, controls the air-supply to the grate of the furnace; but it is obvious that the device may be connected in the same manner to the damper or valve which controls the supply of cold air to the jacket of the furnace or to the check-damper in the smoke-pipe.

My improved adjusting device is easily attached to the floors of the building without marring the wood-work. The guide-pulley I is firmly supported, and the adjustability of the guide-pulley I enables the same to be arranged in the position required by the peculiarities of the building and the location of the damper, thereby insuring the free working of the adjusting-rod, chain, and pulleys.

In the modified construction represented in Fig. 9 the adjusting-rod is held in a slotted socket, r , which is secured to a wooden standard, R.

In the modified construction represented in Fig. 10 the upright slot and the branch slots by which the adjusting-rod is held are formed in the casing G.

I claim as my invention—

1. The combination, with a damper or valve, of an adjusting-rod, C, connected with the damper or valve and provided with a projection, E, and a standard, D, provided with a vertical slot, d , and branch slots e e' at different heights, substantially as set forth.

2. The combination, with a damper or valve, of a vertical adjusting-rod, C, connected with the damper or valve, a locking-standard, D, a casing, G, and a pulley, I, adjustably attached to said casing, substantially as set forth.

3. The combination, with a damper or valve, of a vertical adjusting-rod, C, connected with the damper or valve, a locking-standard, D, provided at its lower end with a screw-thread, g , and a casing, G, provided at its upper end with a screw-thread, g' , substantially as set forth.

4. The combination, with the tubular casing G, of a pulley, I, and a pulley-bearing, J, embracing the casing G and made horizontally and vertically adjustable thereon, substantially as set forth.

5. The combination, with the tubular casing G, of a pulley, I, and a pulley-bearing, J, composed of two arms, j j , applied to opposite sides of the casing and secured together by a clamping-screw, k , substantially as set forth.

6. The combination, with a damper or valve, of an adjusting-rod, C, a locking-standard, D, a casing, G, surrounding said rod, a collar, H, secured to said rod, a chain, h , connecting said collar with the damper or valve, and a guide-pulley, I, attached to the casing G, substantially as set forth.

Witness my hand this 14th day of January, 1887.

FRANK A. GARRETT.

Witnesses:

CALVIN S. BUNNELL,
WATERMAN C. BRODLEY.