

A. C. NORCROSS.
Governors for Furnace-Doors.

No. 148,132.

Patented March 3, 1874.

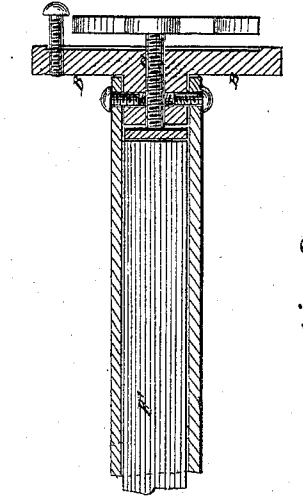


Fig. 1

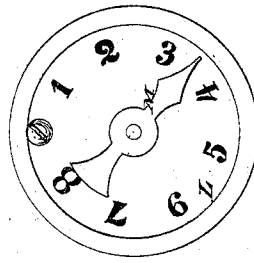


Fig. 3

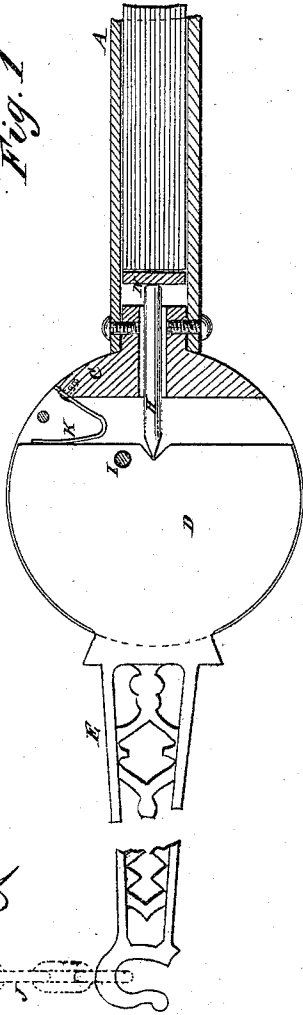
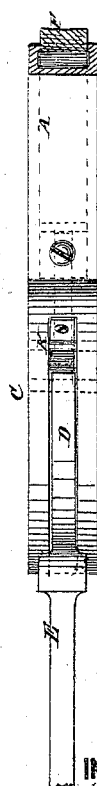


Fig. 2



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UNITED STATES PATENT OFFICE.

ALVIN C. NORCROSS, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN GOVERNORS FOR FURNACE-DOORS.

Specification forming part of Letters Patent No. **148,132**, dated March 3, 1874; application filed January 24, 1874.

To all whom it may concern:

Be it known that I, ALVIN C. NORCROSS, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Automatic Governor for Hot-Air Furnaces, of which the following is a specification:

The invention consists in combining, with the ordinary means for opening and closing a furnace-damper by expansion and contraction of a metallic bar, certain means whereby the adjustment may be obtained, as hereinafter described and claimed.

Figure 1 is a side elevation, partly in section; Fig. 2, a top view; Fig. 3, a front elevation.

A represents the expansible bar, which acts through a head, C, and by means of an end-pointed rod, H, on the lever D, pivoted at I, to operate the furnace-damper. The head C is provided with a spring, K, that acts on a different side of the fulcrum of lever D, and tends to open the damper to the prescribed limit. Substantially, these devices are well

known to the public. I place, inside of the hollow expansible bar A, the non-expansible bar F, so as to bear directly upon the rod H, or an intermediate plate, N, and at the top insert a base-piece, B, on which is a dial, whereon is centered an adjusting-screw, G, having a pointer-head, M. The expander A, of course, acts in the usual way to close the damper more and more as the heat intensifies, while by means of my device added thereto, the exact opening of the damper is adjusted at first, and before the furnace is heated up or afterward, the degree of adjustment being plainly visible on the dial-plate.

I claim—

The combination, with expander A, rod H, and lever D, of the non-expansible bar F, pointer-headed screw G, M, and dial-base B, as and for the purpose described.

ALVIN C. NORCROSS.

Witnesses:

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