

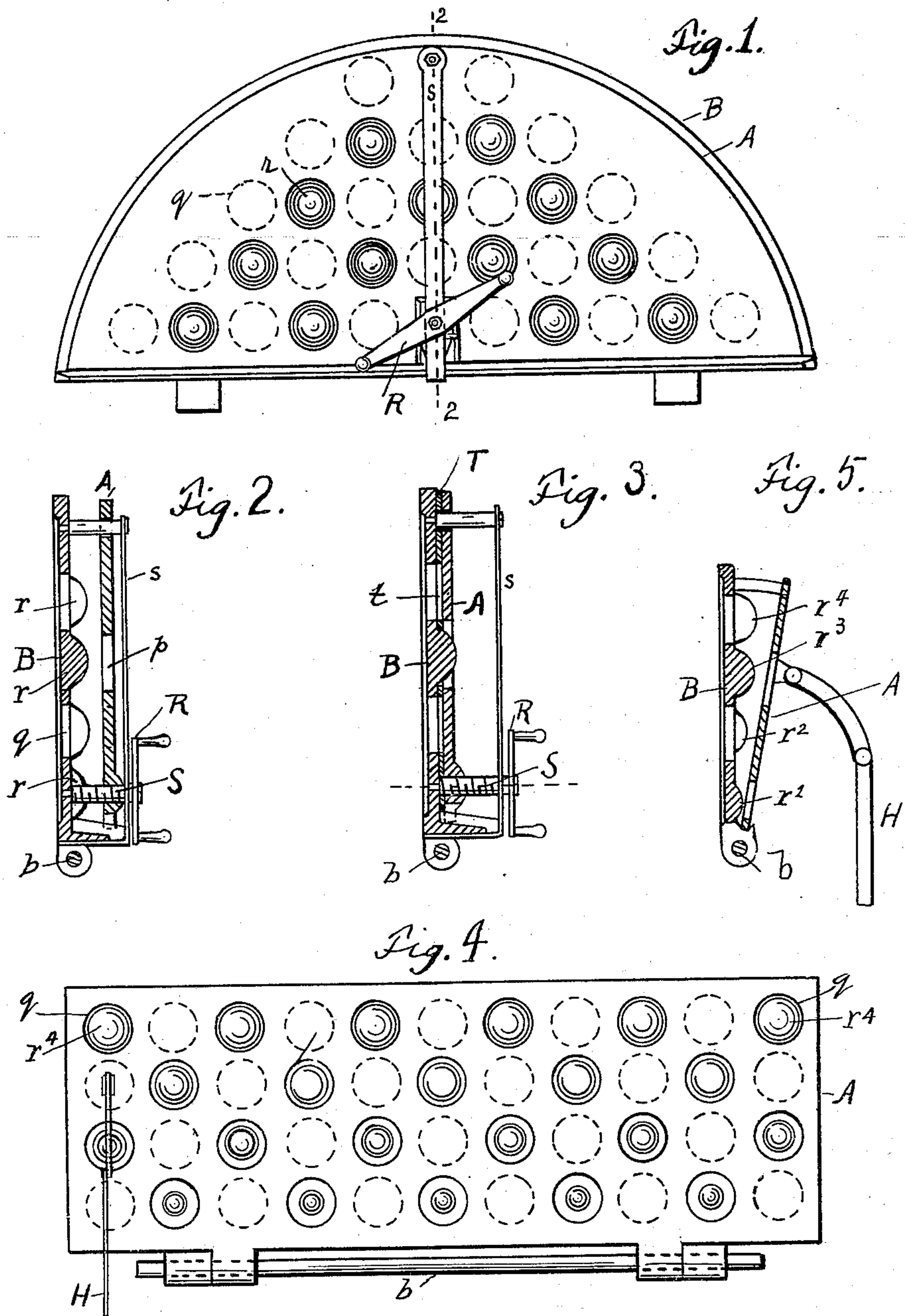
(No Model.)

R. GOLL.

DEVICE FOR ADMITTING AIR TO FURNACES.

No. 604,385.

Patented May 24, 1898.



Witnesses.

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UNITED STATES PATENT OFFICE.

RICHARD GOLL, OF FRANKFORT-ON-THE-MAIN, GERMANY.

DEVICE FOR ADMITTING AIR TO FURNACES.

SPECIFICATION forming part of Letters Patent No. 604,385, dated May 24, 1898.

Application filed December 29, 1897. Serial No. 664,358. (No model.) Patented in Switzerland November 29, 1896, No. 17,136; in Hungary December 2, 1896, No. 17,628; in Germany December 24, 1896, No. 94,822, and in France April 3, 1897, No. 265,637.

To all whom it may concern:

Be it known that I, RICHARD GOLL, manufacturer, residing at Frankfort-on-the-Main, in the Kingdom of Prussia, German Empire, have invented new and useful Improvements in Regulable Admission Devices for Air to Furnaces and the Like, (patented in Germany, No. 94,822, December 24, 1896; Austria, applied for December 1, 1897; in Hungary, No. 17,628, December 2, 1896; in Switzerland, No. 17,136, November 29, 1896; Italy, No. 751, applied for December 1, 1897, and in France, No. 265,637, April 3, 1897,) of which the following is a specification.

My invention consists in means to produce an equal draft under the grates of furnaces as far as the admission of the air from outside under the grate is concerned. I obtain hereby a very exact regulation between full admission and entire exclusion of air.

In the accompanying drawings I have shown the way in which I propose to carry out my invention.

Figure 1 is a front view of an ash-pit door with my improvement. Fig. 2 is a section on line 2 2 of Fig. 1, admission open. Fig. 3 is the same section, admission closed. Figs. 4 and 5 are view and section of a modified form of an ash-pit door.

B is a plate hinged at *b* to the front plate of the ash-box.

A is a plate parallel to plate B and movable by the action of the screw S. This screw S is held in the plate B and a strap *s* and engages a screw-threaded portion of the plate A, which is suspended by the screw.

The plate B is provided with tapering or rounded bosses *r* and perforations *q*, the apexes of the bosses being considerably smaller than the openings in plate A and preferably rounded and projecting from the surface of plate B far enough to extend beyond plate A when A and B are together. This form is found specially advantageous, as it obviates danger of the plates failing to register nicely and gives a very delicate control

of the admission of air. The plate A shows perforations *p* opposite the bosses of plate B.

By turning the screw S by the handle R the openings *p* and *q* are opened or closed for the passage of air. In the intermediate positions the quantity of air is determined by the width of the annular passage between the edges of the openings *p* and the conoidal bosses *r*.

T is a packing-sheet, of asbestos or suitable material, with holes corresponding to those of plate B.

In the modification shown in Figs. 4 and 5 the plate A is hinged to the plate B and the angular position controlled by a hand-lever H. The height of the bosses r^4 r^3 r^2 r' is decreasing here toward the hinge proportional to the distance therefrom.

Now what I claim, and desire to secure by Letters Patent, is the following:

1. In a device for regulating the admission of air and the like, the combination of two perforated plates, one of which plates is movable toward and from the other plate, a boss projecting from the surface of one plate, placed opposite the opening in the other plate, and decreasing in thickness toward the opening.

2. In a device for regulating admission of air and the like, the combination of two plates having series of openings, and bosses on one plate opposite openings in the other plate, said bosses projecting from the normal surface of their plate.

3. The combination of two plates one having openings, and bosses projecting from the surface of the plate, the other plate being perforated opposite the bosses, one plate being movable toward and from the other plate.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

RICHARD GOLL.

Witnesses:

DEAN B. MASON,
FRANK H. MASON.