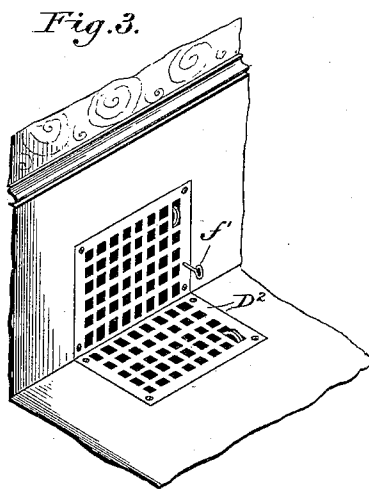
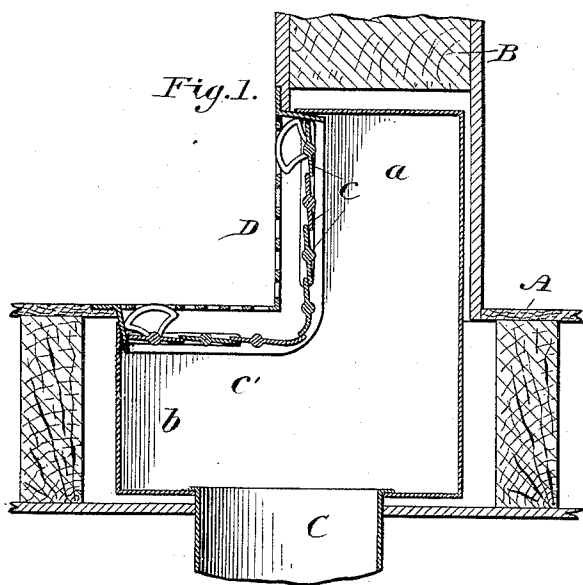
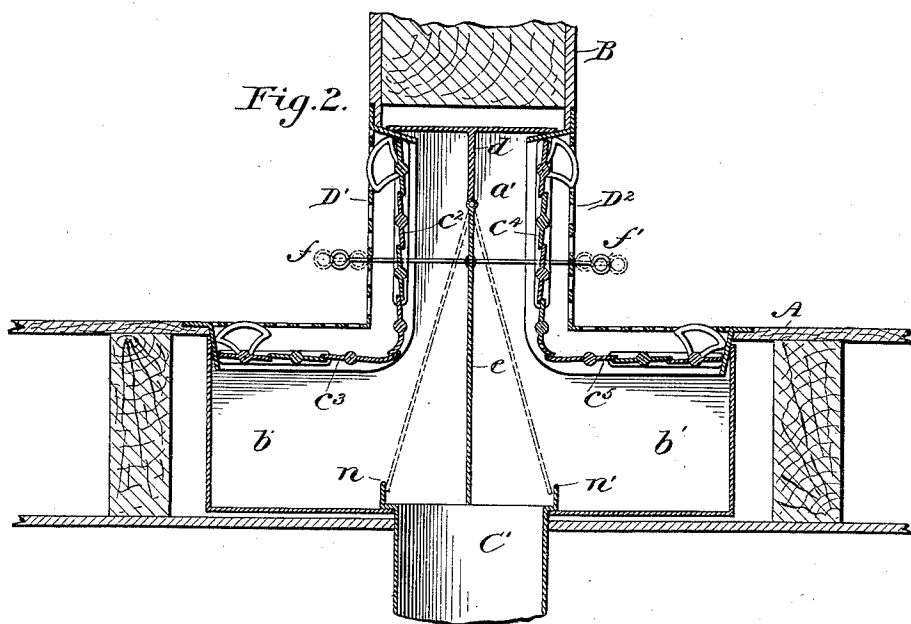


(No Model.)

C. S. HOOD.
DAMPER.

No. 465,563.

Patented Dec. 22, 1891.



Witnesses:

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UNITED STATES PATENT OFFICE.

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SPECIFICATION forming part of Letters Patent No. 465,563, dated December 22, 1891.

Application filed April 13, 1891. Serial No. 388,671. (No model.)

To all whom it may concern:

Be it known that I, CYRUS S. HOOD, a citizen of the United States, residing at Corning, in the county of Steuben and State of New York, have invented certain new and useful Improvements in Dampers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in registers of the kind employed for governing the outflow-openings of the distributing-pipes of air-heating systems.

Heretofore it has been customary to locate said registers either in the floors or in the partition-walls of the rooms or apartments to which the distributing-pipes lead. Each of these expedients has practical advantages appropriate to itself, coupled, however, with corresponding inseparable defects. Thus on rainy days the floor-register is peculiarly adapted by reason of its position to permit the occupant of the room on entering from the wet pavements without, by standing directly over it, to readily and quickly dry shoes and the wet edges of her skirts. This is a matter of impossibility with the side-wall register, which in its usual location of several inches above the base-board of the apartment delivers a horizontal current of air at a correspondingly-high level above the floor. Furthermore, the floor-register has an advantage over the side-wall register by reason of the fact that it delivers the full volume of air without obstruction or back-pressure into the room, whereas the casing of the side-wall register is located within the contracted space of the narrow partition-walls, which in general limit it to contracted dimensions. On the other hand, however, the floor-register is accompanied with the objection that it requires a large opening to be cut through the flooring and carpet.

My invention is designed to combine in one device the advantages of both the side-wall and floor registers, while at the same time reducing to a minimum the defects noted. To this end I locate the register-casing at the place of meeting of the flooring and side wall

and in such manner that a portion of said casing shall extend upwardly within the side wall or partition and the other portion outwardly beneath the flooring. Corresponding openings in the side wall and flooring are then made opposite the casing for the reception of the register face-plate. It is obvious that this arrangement in giving all the advantages of the usual floor-plate lessens the space necessary to be cut from the flooring and carpet. It also permits the employment of a single casing for the distribution of heated air to either or both of two adjoining rooms by means of a deflecting-plate normally suspended by its upper edge within said casing, so as to permit equal distribution to both rooms, but adapted to be swung to one side or the other, so as to shut off the supply to one room and direct it into the other.

The details of construction whereby these results are attained are illustrated in the accompanying drawings, wherein—

Figure 1 represents a sectional view of a register embodying my improvements and adapted to supply a single room. Fig. 2 represents a similar view of a register adapted to supply adjoining rooms, and Fig. 3 represents a front view thereof.

Similar letters of reference indicate similar parts throughout the several views.

Referring to the drawings, A indicates the flooring, and B the partition-wall, of a building.

In Fig. 1 the air-distributing pipe C communicates with a register-casing having a portion *a* extending upwardly within the partition-wall, and a portion *b* extending beneath the flooring. The partition-wall and flooring are cut away for the accommodation of the face-plate D, which is preferably cast in a single piece. The admission of air is governed by the two sets of slat-valves *c c'*, as shown.

In the form of my invention shown in Figs. 2 and 3 the air-distributing pipe C' leads into a register-casing, whose upper portion *a'* extends upwardly within the partition between adjoining rooms and whose lower portions *b'* extend, respectively, beneath the floorings of said rooms. The upper portion of the casing is provided with a fixed partition-plate *d*,

from which depends the swinging plate *e*, having operating-rods *ff'* extending outwardly through openings in the register face-plates *D'D'*. The size of these openings bears such
 5 relation to the diameter of the rods that when a rod is drawn out so as to move the plate from its vertical position the said rod will bind within the opening with sufficient friction to retain the plate in the position of adjustment chosen. It will be noted that the
 10 plate hangs normally from its hinge-support exactly above the pipe *C'*, so as to divert the rising air-current equally into both rooms. When it is desired to entirely shut off the air
 15 from one room and direct it into the other, the appropriate rod *f* or *f'* is drawn out so as to swing the plate to one side or the other, so that its lower edge will come into contact with the corresponding seat *n* or *n'*.

20 Minor regulations of air-admission may be effected by the supplemental sets of slat-valves *c² c³ c⁴ c⁵*, which are also useful in order to shut off the air-current from both rooms.

Having thus described my invention, what
 25 I claim is—

1. A register for air-heating systems, provided with a casing located at the point of meeting of the flooring and side wall of a room, one portion of said casing extending
 30 upward within and opening from the side wall and another portion extending outwardly and opening beneath the flooring, and a register

face-plate for said casing, substantially as described.

2. A register for air-heating systems, provided with a casing located at the point of meeting of the flooring and common partition-wall of adjacent rooms, one portion of said casing extending upward within the partition-wall and opening into both rooms and the remaining portions extending outwardly to right and left and opening beneath the floorings of the respective rooms, and register face-plates for said casing, substantially as described.

3. A register for air-heating systems, provided with a casing located at the point of meeting of the flooring and common partition-wall of adjacent rooms, one portion of said casing extending upward within the partition-wall and opening into both rooms and the remaining portions extending outwardly to right and left and opening beneath the flooring of the respective rooms, and a swinging plate suspended within the casing and having operating means for directing the air-current to either of the rooms at will, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CYRUS S. HOOD.

Witnesses:

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 CHAS. L. FULLER.