

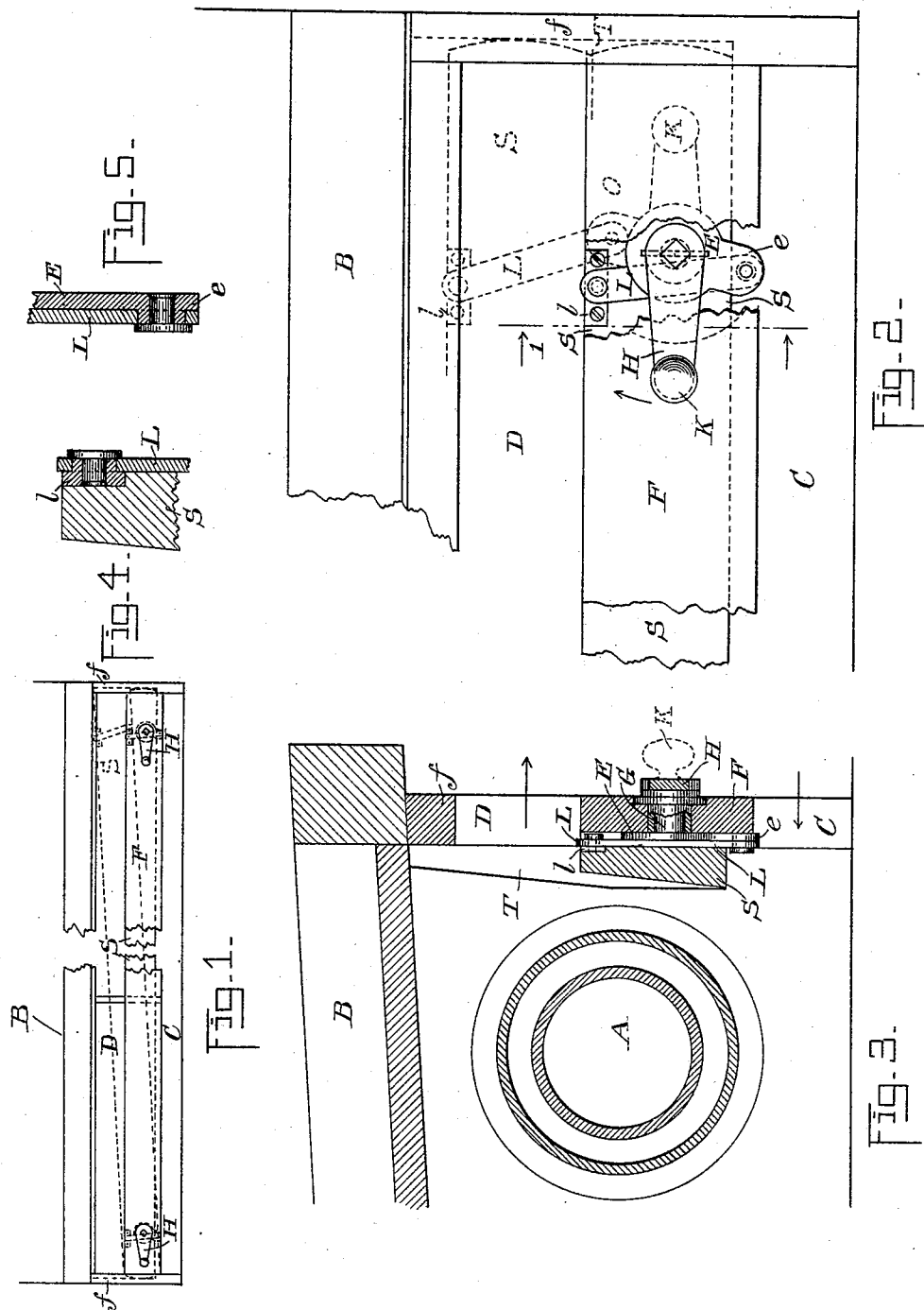
(No Model.)

2 Sheets—Sheet 1.

J. F. McELROY.
HEAT REGULATOR.

No. 520,893.

Patented June 5, 1894.



Witnesses =

John W. Fisher
Grace T. May.

Inventor,
James F. McElroy,
by Ward & Cameron
Attorneys.

(No Model.)

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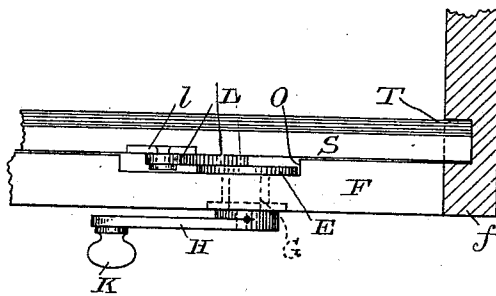


Fig. 6.

Witnesses =

John W. Fisher
Grace T. May.

Inventor,
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UNITED STATES PATENT OFFICE.

JAMES F. McELROY, OF ALBANY, NEW YORK, ASSIGNOR TO THE CONSOLIDATED CAR-HEATING COMPANY, OF WHEELING, WEST VIRGINIA.

HEAT-REGULATOR.

SPECIFICATION forming part of Letters Patent No. 520,893, dated June 5, 1894.

Application filed December 1, 1893. Serial No. 492,505. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. McELROY, a citizen of the United States, residing in the city and county of Albany, State of New York, have invented a new and useful Heat-Regulator, of which the following is a specification.

My invention relates to devices for regulating the emission of heat into an apartment from a hot water storage cylinder; and the object of my invention is to provide an easily adjustable shutter or damper by the operation of which the heat given off from a hot water storage cylinder placed within a car may be regulated and controlled. I accomplish this object by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation. Fig. 2 is a front elevation enlarged with a part broken away. Fig. 3 is a vertical section along the line I—I on Fig. 2. Fig. 4 is a detail view showing the connection between the lifting bar L and the shutter. Fig. 5 shows the connection between the lifting bar L and the plate E. Fig. 6 is a plan of the upper portion of the strip F and shutter S.

Similar letters refer to similar parts throughout the several views.

Beneath the car seat B, provided along its front with two openings C D extending the full length thereof, one C near the floor, the other D near the top thereof separated by a strip F, I place a hot water cylinder A. The strip F is suitably attached to the seat supports *f f*. Immediately in the rear of the strip F, I arrange the movable shutter S, which shutter is of sufficient width to close the opening D. I arrange the guide frame T in the rear of the shutter S, and attach it to the bottom of the seat B and to the seat supports *f f*, or in any suitable manner, for the purpose of directing the motion of the shutter S and holding it in position. Usually the shutter is provided with a feather edge at the top and the frame T is constructed in such a manner as to conform with this arrangement of the shutter, as shown in Fig. 3. When the shutter is down, the opening D is unobstructed; the shutter rests upon the lower portion of the frame T, as shown in Fig. 3.

For the purpose of raising the shutter and closing the opening D, thus obstructing the passage of the heated air into the car, I attach to the upper portion of the shutter S and at or near each end thereof, a plate *l* carrying the lifting bar L which is pivotally secured thereto. Pivotaly attached to the lifting bar L is the plate E; said plate E provided with a projecting portion *e* extending therefrom, and to which extended portion *e* the lifting bar L is secured.

Passing through the strip F and rigidly attached to the plate E, I place the bolt G to which is secured the lever H, which has at one end a knob K. The plate E is countersunk in the strip F and so arranged that the movement of the lever H and the plate E is limited by means of the portion O of the strip F bordering the part countersunk. By the operation of the lever H, the plate E is moved, which in turn causes the lifting bar L to elevate the shutter S to the position shown by dotted lines in Fig. 2, thereby closing the opening D. In this position, the projecting portion *e* of the plate E is moved past the vertical line and rests against the obstructing piece O, thereby causing the lifting bar L to retain the shutter S in its elevated position.

It will be noticed that one end of the shutter may be raised, while the other remains in its lowered position, as shown in Fig. 1; thus a person occupying one end of the seat and requiring less heat than a person at the other end, may raise the shutter and shut off the heat from his end of the seat and not interfere with the enjoyment by the occupant of the other end of the seat of the full quota of heat given off by the storage heater.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a heat regulator, a seat provided along its front with two openings extending the full length thereof, one near the floor and the other near the top thereof, a heater placed beneath said seat, a shutter adapted to close said upper opening, each end of said shutter provided with a plate, a lifting bar attached to said shutter and to said plate, a lever connected with said plate by the operation of which each end of said shutter may be independently elevated or lowered as desired, so

that the flow of heated air of one end of a car or other apartment may be controlled without affecting the flow of the air to the other end of the same, substantially as described and for the purpose set forth.

2. In a heat regulator, a seat provided along its front with two openings, one near the floor and the other near the top thereof, a heater placed beneath said seat, a shutter adapted to close said upper opening, each end of said shutter provided with a means for adjusting

the end of the shutter independently, so that the flow of the heated air of one end of a car or other apartment may be controlled without affecting the flow of air to the other end of the same, substantially as described and for the purpose set forth.

JAMES F. McELROY.

Witnesses:

RALPH W. KIRKHAM,
MARY AGNES BURKE.