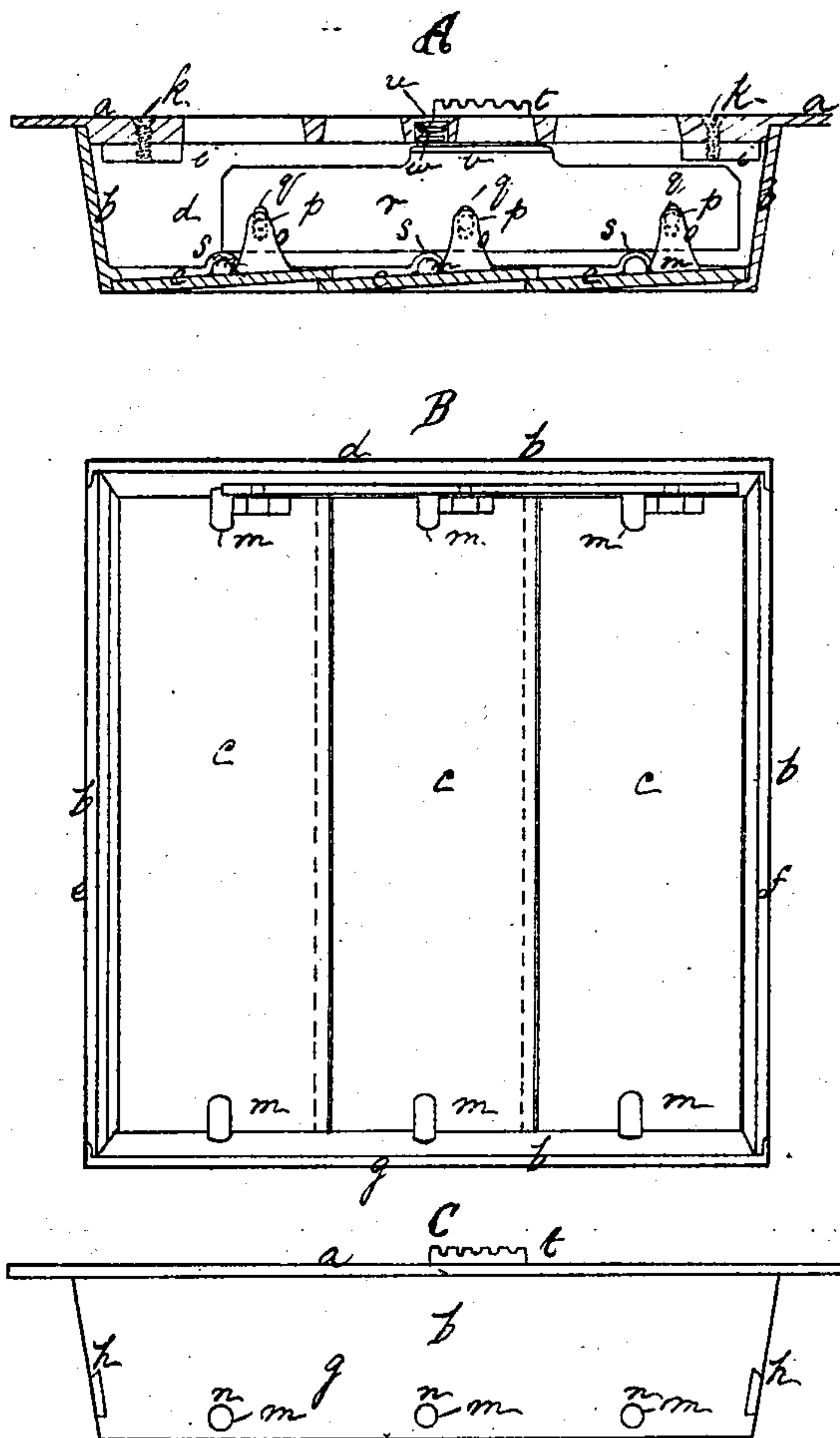


H. M. PHINNEY.  
REGISTER.

No. 77,403.

Patented Apr. 28, 1868.



Witnessed  
L. B. Hedder  
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H. M. Phinney  
by his Atty  
Crosby & Bates & Gould

# United States Patent Office.

HUGH M. PHINNEY, OF CAMBRIDGEPORT, MASSACHUSETTS.

*Letters Patent No. 77,403, dated April 28, 1868.*

## IMPROVEMENT IN REGISTERS.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, HUGH M. PHINNEY, of Cambridgeport, in the county of Middlesex, and State of Massachusetts, have invented an Improved Register; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practise it.

The invention relates to the construction of square or rectangular registers for hot-air pipes, ventilators, &c.

As heretofore constructed, the frame or box part of such a register, or that part in which the blades or valves are mounted, has been cast in one piece, and besides the room that such construction causes the registers to fill, in packing for transportation, it is particularly objectionable to a register so made, that separate or specific bearing-pieces or boxes have to be fastened upon the frame for supporting the journals of the blades.

My invention consists primarily in constructing the box-frame of a register of four plates, jointed or secured together at their corners, the box or frame made by the plates having provision for securing it to the wall-plate.

The invention also consists in journalling the blades directly upon the box-plates, in contradistinction to mounting the journals in boxes fastened or bolted to the walls or side pieces of the box.

It also consists in inserting between an extension from the slide (which turns the blades) and the under face of the wall-plate, a spiral spring, which bears upon the slide with sufficient stress to hold the blades in any position more or less open.

The invention further consists in combining with the slide a mover, made integral or in one piece therewith.

The drawings represent a register embodying my improvements, A showing a cross-section, and B an under side view of the same, and C an end view.

*a* denotes the wall or floor-plate, having at its rear or under surface the box-frame *b*, to which the valve-blades *c* are connected. This frame *b* is made up of four separate plates, *d, e, f, g*, which have mitre or dove-tail ends, as seen at *h*, so that the plates may be fitted and jointed together to form the square or rectangular frame.

The two opposite plates *d g* have ears or projections, *i*, for reception of the shanks of screws *k*, by which the frame is screwed to the plate *a*, the joints at the connecting-ends of each two adjacent plates being so formed that the connection of the plates *d g* to the plate *a* secures the four plates, *d, e, f, g*, together as well as to the plate *a*.

This capability of division of the frame enables me to hang the journal-pins *m* of the blades directly in journal-holes *n* made in two opposite frame-plates, as seen at C, obviating the necessity of applying bearing-pieces to the frame.

On the inner side of one end of each blade *c*, on one side of each journal thereof, is a projection, *o*, from which extends a pin, *p*, into a slot, *q*, in a slide, *r*, this slide traversing on ways or projections *s*, cast on the inner side of one of the frame-plates. On the upper edge of the slide is the piece *t*, projecting through an oblong slot, *u*, in the plate *a*, movement of this piece to and fro effecting the opening and closing of the register, as is readily understood.

Just beneath the plate *a* the slide *r* has an extension, *v*, and between this extension and the plate *a* (preferably let into a recess sunk in the plate) is a spiral spring, *w*, the stress of which upon the extension *v* holds the blades stationary in any position within their limit of motion.

The slide *r* is made in one piece with the mover *t*, by which it is operated, the mover extending up (as a projection from the slide) through the slot *u*, and traversing in said slot.

I claim the sectional frame *b*, made in parts connected together and to the register-plate *a*, substantially as described.

I also claim, in combination with the slide *r*, the spring *w*, inserted beneath and bearing against the plate *a* and against an extension, *v*, from the slide, substantially as set forth.

HUGH M. PHINNEY.

Witnesses:

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