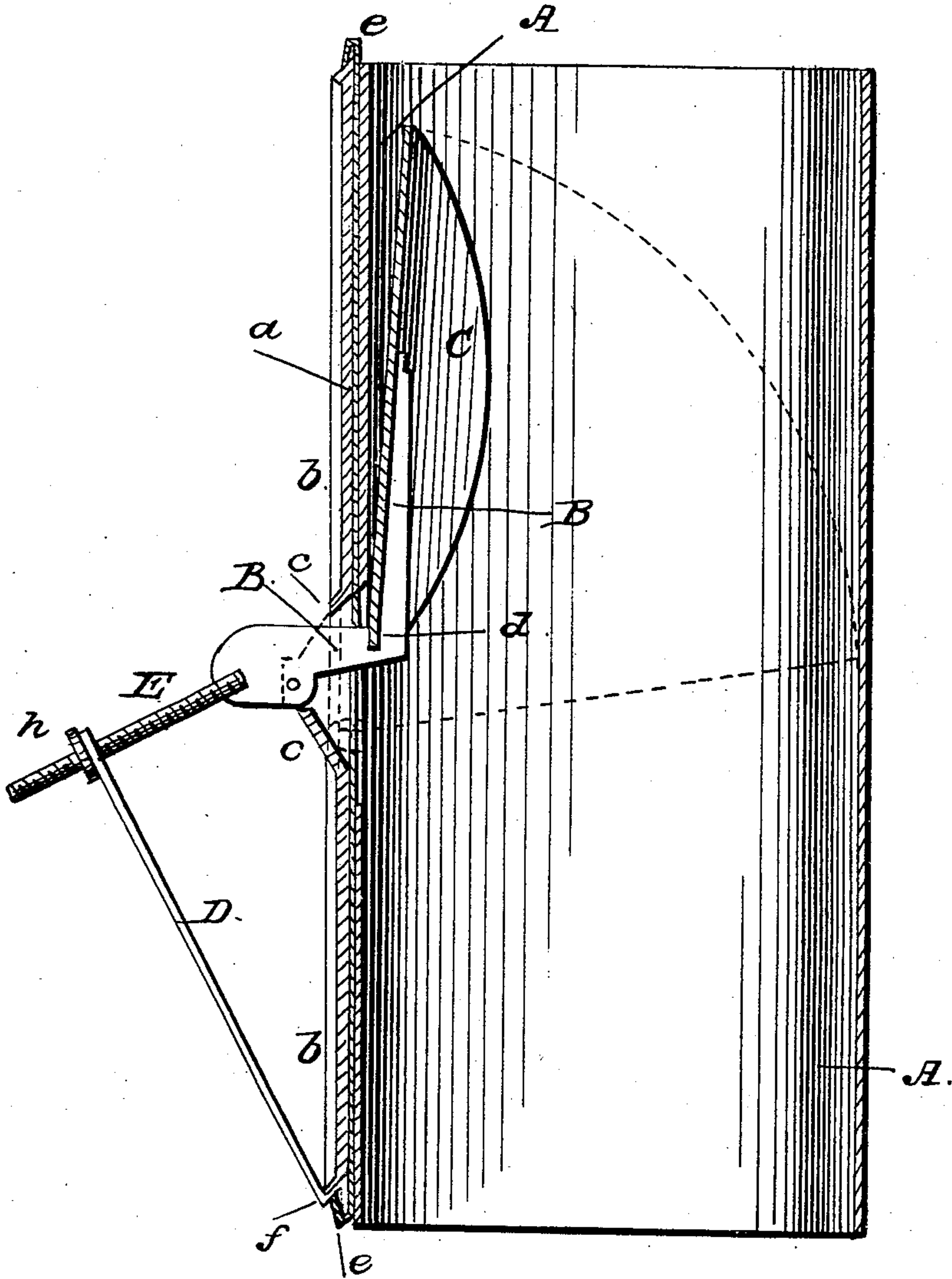


R. BLUM.  
Stove Damper.

No. 89,280.

Patented April 27, 1869.



Witnesses  
Leopold Overh  
A. H. Featherman

Inventor  
R. Blum  
per  
Alexander Graison  
attys



# United States Patent Office.

REINARD BLUM, OF CHAMPAIGN, ILLINOIS.

Letters Patent No. 89,280, dated April 27, 1869.

## STOVE-GOVERNOR.

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, REINARD BLUM, of Champaign, in the county of Champaign, and in the State of Illinois, have invented certain new and useful Improvements in "Stove-Governor;" and do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the construction and general arrangement of a "stove-governor," or self-regulating stove-pipe damper, which will close gradually as the heat increases, thus lessening the draught, and as the heat decreases, it will again open, increasing the draught.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, which form a part of this specification, and which represent a longitudinal vertical section of a stove-pipe, with the "governor" attached.

A represents a stove-flue, or pipe, made in any of the known and usual ways, and provided on one side with a slot, through which the lower end of the shank B passes.

This end of the shank also passes through slots in two metal plates, *a* and *b*, which are placed on the outside of the stove-pipe, and the outer one *b* riveted to the pipe.

This plate *b* is also provided on its outside with two ears, or lugs *c*, between which the shank is pivoted.

To the upper end of the shank B, inside of the stove-pipe A, the damper C is riveted, said damper extending down along that part of the shank which is inside the stove-pipe, and secured to lugs *d d* on the same.

The damper C is cut and formed so as to fit the pipe A, both when raised and lowered.

The plate *a*, which lies snug up against the stove metal, is made of metal that will easily expand or contract as the heat increases or decreases, and is at each end provided with a socket *e*.

The plate *b*, on the contrary, is made of metal that will not readily be affected by the heat.

The upper end of the plate *b* is inserted into the socket *e* at the upper end of the plate *a*, and the lower end of said plate *b* rests on a shoulder, *f*, near the lower end of the lever D.

This lever is, at its lower end, of the same width as the plate *b*, and forms the shoulder *f* on which the

lower end of the plate *b* rests, as above mentioned, the end of the lever, after having formed said shoulder, being inserted in the lower socket *e* of the plate *a*.

The lever D, which tapers upward, is at its upper end connected with the lower outer end of the shank B, by means of a screw-rod, E.

This rod has on one end a hook, which passes through the outer end of the shank B, and the screw end of said rod passes through a hole in the upper end of the lever D, on the outside of which it is secured by a nut, *h*.

The "governor" is attached to the flue, or pipe of the stove it is to govern at a suitable distance from the fire-place.

The nut *h* is then screwed up tight enough to raise the damper C.

As the heat from the fire increases, the metal plate *a* expands, which will, of course, loosen the lower end of the lever D, allowing it to yield so that the damper C will lower itself from its own weight, and the more the heat increases the looser will the lower end of the lever become and the lower the damper will fall, which, of course, then lessens the draught.

As soon as the heat, then, diminishes, the plate *a* contracts, tightens the lower end of the lever, raises the damper, and again increases the draught.

It will thus be seen that it is an entirely self-regulating stove-pipe damper, which I have given the name of a "stove-governor," as it is to a stove what a governor is to an engine.

Having thus fully described my invention,

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

1. The arrangement, on the outside of a stove-pipe, of the expansive plate *a*, having a socket, *e*, at each end, the non-expansive plate *b*, and the lever D, the lower end of said lever resting in the lower socket *e*, and the plate *b* resting on a shoulder, *f*, on the lever, and its upper end inserted in the upper socket *e*, all substantially as and for the purposes herein set forth.

2. The arrangement of the damper C, shank B, rod E, and nut *h*, with the lever D and plates *a* and *b*, all constructed as described, and operating substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand, this 11th day of January, 1869.

REINARD BLUM.

Witnesses:

C. W. BEYER,  
GEO. W. CURTISS.