(No Model.)

O. BRIGGS, Jr.

TIME DAMPER OPERATING MECHANISM.

No. 478,562. Patented July 12, 1892.

Fig. 3.

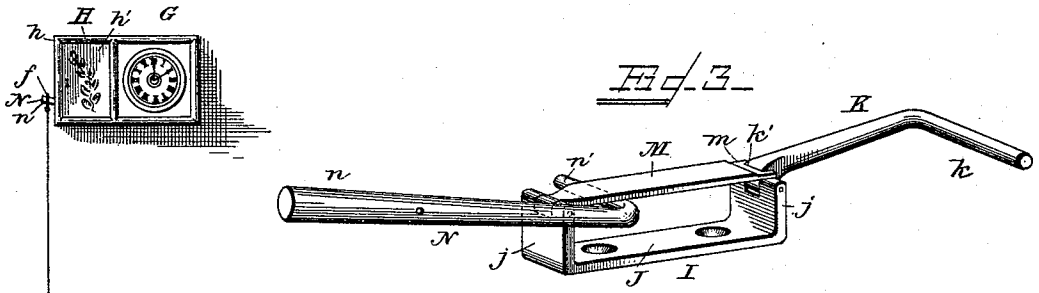


Fig. 1.

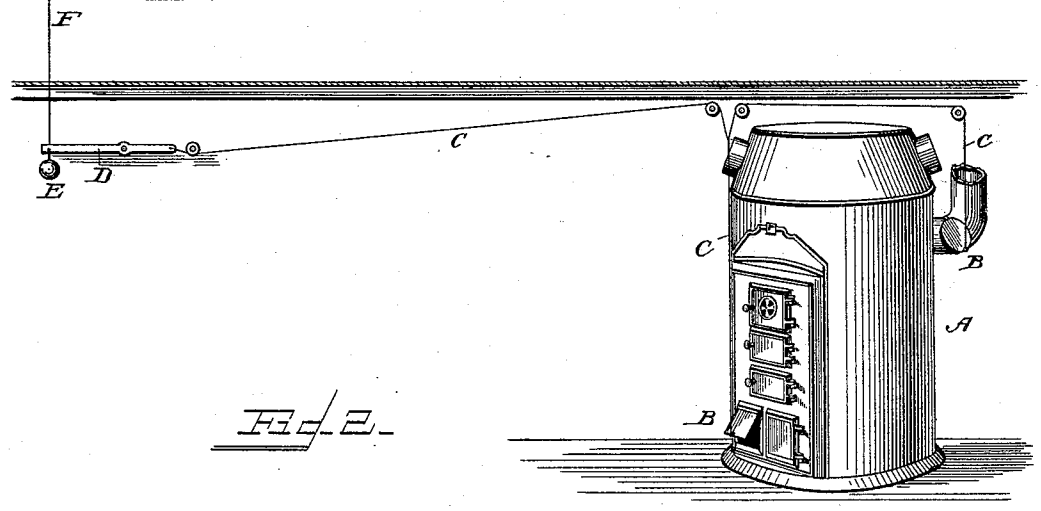
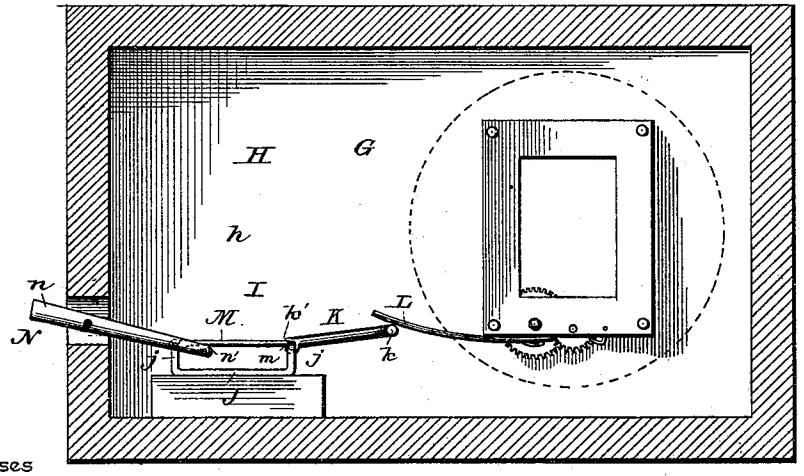


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

OTIS BRIGGS, JR., OF NEVADA, IOWA.

TIME-DAMPER-OPERATING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 478,562, dated July 12, 1892.

Application filed April 5, 1892. Serial No. 427,858. (No model.)

To all whom it may concern:

Be it known that I, OTIS BRIGGS, Jr., a citizen of the United States, residing at Nevada, in the county of Story and State of Iowa, have invented a new and useful Draft-Regulating Attachment, of which the following is a specification.

This invention relates to draft-regulating attachments for clocks; and it has for its object to provide an improved and greatly simplified clock attachment which is connected with the draft-dampers of hot-air furnaces and heating apparatus generally, so that at a given hour the draft in the apparatus will be changed.

It is also the principal object of this invention to provide a device having an entire absence of springs and constructed of comparatively few parts, so that the same cannot easily get out of order and can be connected with any ordinary alarm-striking clock.

With these and many other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a hot-air furnace having my improved draft-regulating attachment connected therewith. Fig. 2 is a vertical sectional view behind the clock-face. Fig. 3 is a detail in perspective of the attachment proper.

Referring to the accompanying drawings, A represents an ordinary hot-air furnace having the usual draft-regulating dampers B, located in the smoke-pipe and ash-pit, as usual, and connected with the single operating-chain C, so that when one of the drafts is open the other is closed in the usual manner. One end of the operating-chain C is connected to one end of the lever D, pivoted to a suitable point of attachment and carrying at its other end a weight E, which normally tends to elevate the opposite end thereof and control the drafts.

To the weighted end of the lever D is secured the supporting-chain F, which is provided at its other end with a ring *f*, which is connected with my improved attachment, which I shall now proceed to describe. The clock G is located at any suitable point in the building and may be of any alarm-striking type. The clock G is preferably inclosed in the casing H, having an extended portion *h*, which is inclosed by the door *h'* and which accommodates my improved damper-regulating attachment I. The attachment I is suitably secured in said extended portion of the casing to one side of the clock mechanism and is provided with a base-plate J, having the opposite upwardly-extending arms *j*, to the top of one of which, adjacent to the alarm-striking devices of the clock, is pivoted one end of the drop-lever K. The said drop-lever K is provided at its free end with an offstanding strike-arm *k*, which when the said drop-lever is in a horizontal position lies directly in the path of and under the alarm-lever L, connected with the alarm-strike and vibrated thereby, so that when the alarm is set off the said lever strikes the strike-arm *k* and causes the drop-lever K to drop. The other end of the drop-lever K directly over its point of pivot is provided with a notch *k'*, which receives one end of the releasing-plate M. The said releasing-plate M is pivoted at one end to the opposite arm *j* and is provided at its other end with a tongue *m*, taking into said notch and designed to hold the drop-lever in a horizontal position. The releasing-plate is caused to hold the drop-lever in a horizontal position by means of the releasing-lever N. The said releasing-lever N is pivoted within the extended portion of the casing and has one end thereof, as at *n*, projecting outside of the casing, while the opposite end thereof is provided with an offstanding bearing-arm *n'*, which bears under the releasing-plate M and normally forces the same upward, so that when the lever L causes the drop-lever to disengage said plate the plate releases the lever N, so that the extended end *n* thereof will drop and release the supporting-chain F, supporting the weighted lever D. The ring of the chain F is designed to be placed over the end *n* of the releasing-lever, so that at the proper time the supporting-chain will be released, and thereby release the damper-controlling lever D, which operates in a manner which will be quite apparent.

The construction and operation of the herein-described device are thought to be apparent without further description.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a device of the class described, the combination, with a weight-controlled draft-regulating lever, of the clock-casing having an extended portion, the alarm-striking mechanism mounted in said casing and carrying a vibrating lever, and a releasing attachment mounted in said extended portion of the casing and comprising a base-plate, a drop-lever pivoted at one end of said base-plate and lying in the path of said alarm-lever, a releasing-plate pivoted to the other end of said base-plate and normally engaging the pivotal end of said drop-lever, and a releasing-lever pivoted within the casing, normally bearing under said releasing-plate and connected with said weighted lever, substantially as set forth.

2. In a device of the class described, the combination, with a weight-controlled regulating-draft lever, and an alarm-striking mechanism carrying a lever, of a releasing attachment located adjacent to said striking mechanism and comprising a base-plate having opposite upwardly-extending arms, a drop-lever pivoted to one of said arms and provided at one end with an offstanding arm lying in the path of said alarm-lever and a notch at its opposite end, a releasing-plate pivoted to the other base-plate arm and normally engaging the notch of said drop-lever, and a releasing-lever pivoted adjacent to the base-plate and provided with a bearing-arm normally bearing under said releasing-plate, and a supporting-chain connected with said weight-controlled lever and loosely to the other end of said releasing-lever, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

OTIS BRIGGS, JR.

Witnesses:
W. P. FITCHPATRICK,
OLE O. RAE.