L. A. KNOWLES.

STOVE.

APPLICATION FILED JAN. 18, 1913.

1,068,392. **Patented July 22, 1913.**

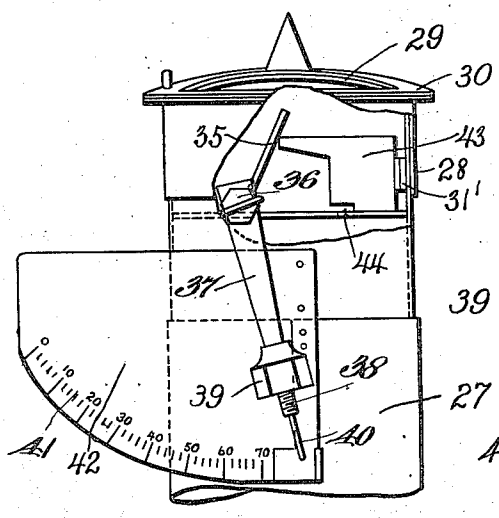


Fig. 1.

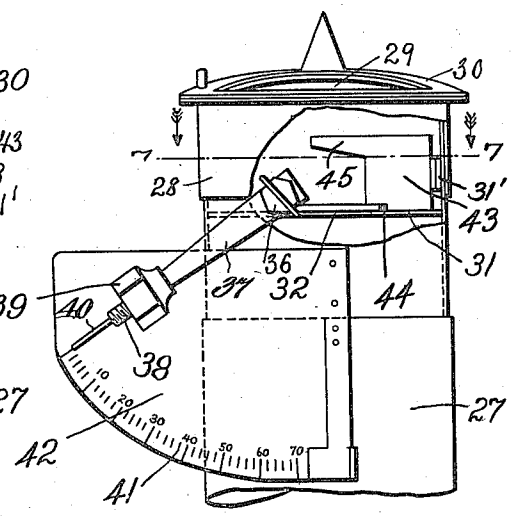


Fig. 2.

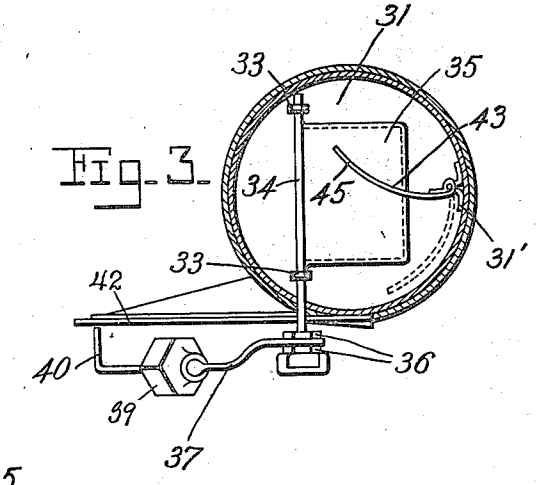


Fig. 3.

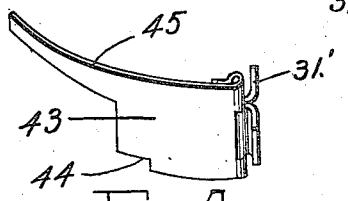


Fig. 4.

WITNESSES:

T. Honoyama.

A. N. Byrne

INVENTOR

Latham A. Knowles

BY

J. H. Mathews

ATTORNEY

UNITED STATES PATENT OFFICE.

LATHAM A. KNOWLES, OF VIENNA, ILLINOIS.

STOVE.

1,068,392. Specification of Letters Patent. Patented July 22, 1913.

Application filed January 18, 1913. Serial No. 742,854.

To all whom it may concern:

Be it known that I, LATHAM A. KNOWLES, a citizen of the United States of America, residing at Vienna, in the county of Johnson and State of Illinois, have invented certain new and useful Improvements in Stoves, of which the following is a specification.

This invention relates to damper regulators for stoves and has special reference to the type of stove known as a wood burner wherein the material to be burned rests directly on the bottom of the stove.

The invention has for its purpose to provide a damper and regulator which may be set to operate automatically, and wherein the construction thereof is such that the parts will not readily get out of order and which may be constructed at comparatively small cost.

With the above and other objects in view the invention consists in general of certain novel details to constitute the combinations of parts hereinafter fully described, illustrated in the accompanying drawings, and specially claimed.

The invention is shown in the accompanying drawing wherein,

Figure 1 is a side elevational view of the device, with parts broken away for clearness. Fig. 2 is a view similar to Fig. 1 showing the damper in closed position; Fig. 3 is a top plan sectional view taken on the line 3—3 of Fig. 2; and Fig. 4 is a perspective view of the latch for the damper.

Referring to the construction in detail, 27 represents a flue or pipe which extends upward and is provided at the top with a cap 28 having apertures 29 in its top. On this cap is pivotally mounted a cover 30 also provided with apertures arranged to register with the apertures 29. By this means the amount of air admitted to the flue may be regulated by hand.

In order to automatically regulate the air passing through the flue there is provided a partition plate 31 located in the flue and having an opening 32 therein. Mounted on the plate 31 are eyes 33 through which passes a rod 34, said rod extending outward through the flue as clearly seen in the drawings. Secured to the rod is a damper plate 35 arranged to cover the opening 32 when closed. The outer end of the rod 34 is threaded and carries spaced nuts 36 between which is mounted an arm 37 provided with a threaded portion 38. On this threaded portion 38 is mounted a weight 39 and projecting from the arm is a pointer 40 which travels over the scale 41 carried upon the plate 42 secured to the flue.

Pivotally mounted on the flue 27 is the locking member which consists of a curved body plate 43 that is pivotally mounted at 31′. Said plate has a notch 44 adapted to engage over the damper when closed; and an arm 45 constituting a stop member arranged to hold the damper open when desired. The damper being in this position in Fig. 1 and locked in closed position in Fig. 2.

In operating the device, the damper and arm 37 are arranged in the desired position after the pointer has been set to the figure desired on the scale 41. The damper will then be in the position which will admit the proper amount of air. In case the fuel burns more rapidly than desired or an increased draft is excited from any other cause, such as the wind rising, the increase of draft will tend to close the damper which will raise the weight 39 until equilibrium is again established. If, on the contrary, the draft decreases the weight will cause the damper to open and again equalize the conditions. Should it be desired to lock the damper in either closed or open position this may be readily effected by rotating the member 43 to engage the damper when in the desired position. It will be obvious that the latch member will be swung to the dotted position in Fig. 3 when the device is working automatically so as to be out of the way.

Having thus described the invention what is claimed as new is:—

1. The combination with a stove having a draft flue therefor; of an automatically actuated draft regulator comprising a valve adapted to interrupt the draft through said flue; a shaft on which said valve is mounted; an arm secured to said shaft and adapted to be secured thereon at different angular positions; a weight secured to the flue end of said arm; a pointer secured to said arm; a plate having a graduated scale for indicating the position for setting said arm, and means for locking said damper in a plurality of selected positions.

2. The combination with a stove having a draft flue therefor; of an automatically actuated draft regulator comprising a valve adapted to interrupt the draft through said flue; a shaft on which said valve is mounted;

an arm secured to said shaft and adapted to be secured thereon at different angular positions; a weight secured to the free end of said arm; a pointer secured to said arm; a plate having a graduated scale for indicating the positions for setting said arm, and means for locking said damper in a plurality of selected positions, said means comprising a rotatable member having a latch on one end arranged to engage the damper when closed, and an arm at its other end arranged to project beneath said damper when the latter is open.

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

LATHAM A. KNOWLES.

Witnesses:
H. A. SPANN,
W. A. SPANN.