

No. 662,661.

Patented Nov. 27, 1900.

J. C. WITCHER.
STOVE DAMPER.

(Application filed Jan. 17, 1900.)

(No Model.)

Fig. 1.

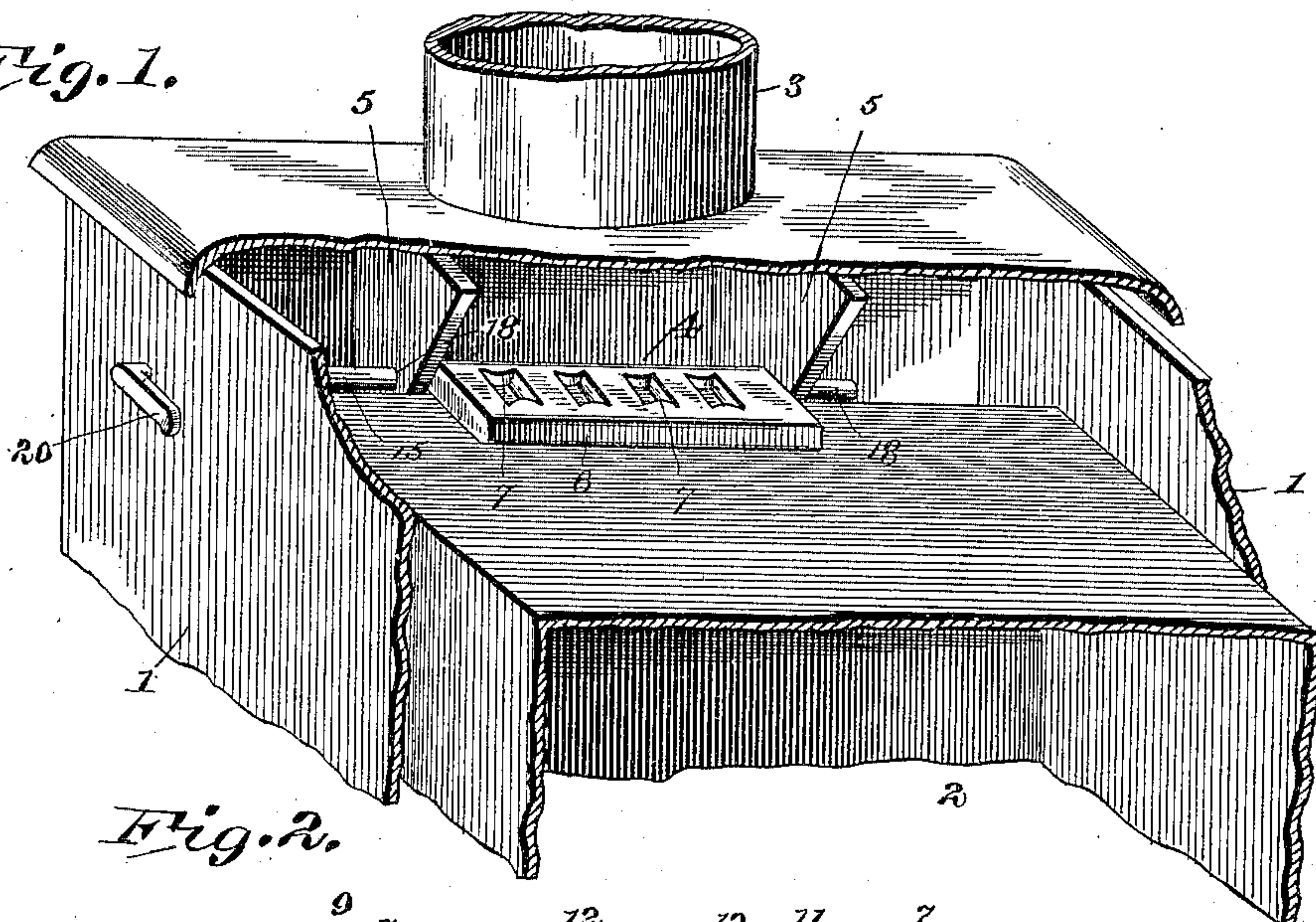


Fig. 2.

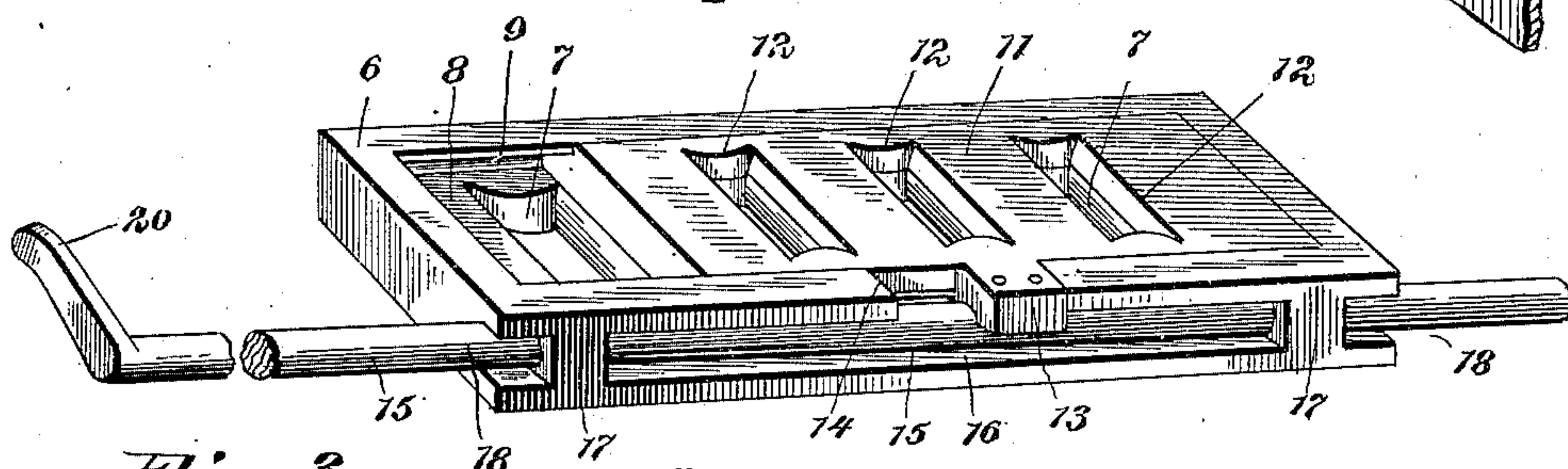


Fig. 3.

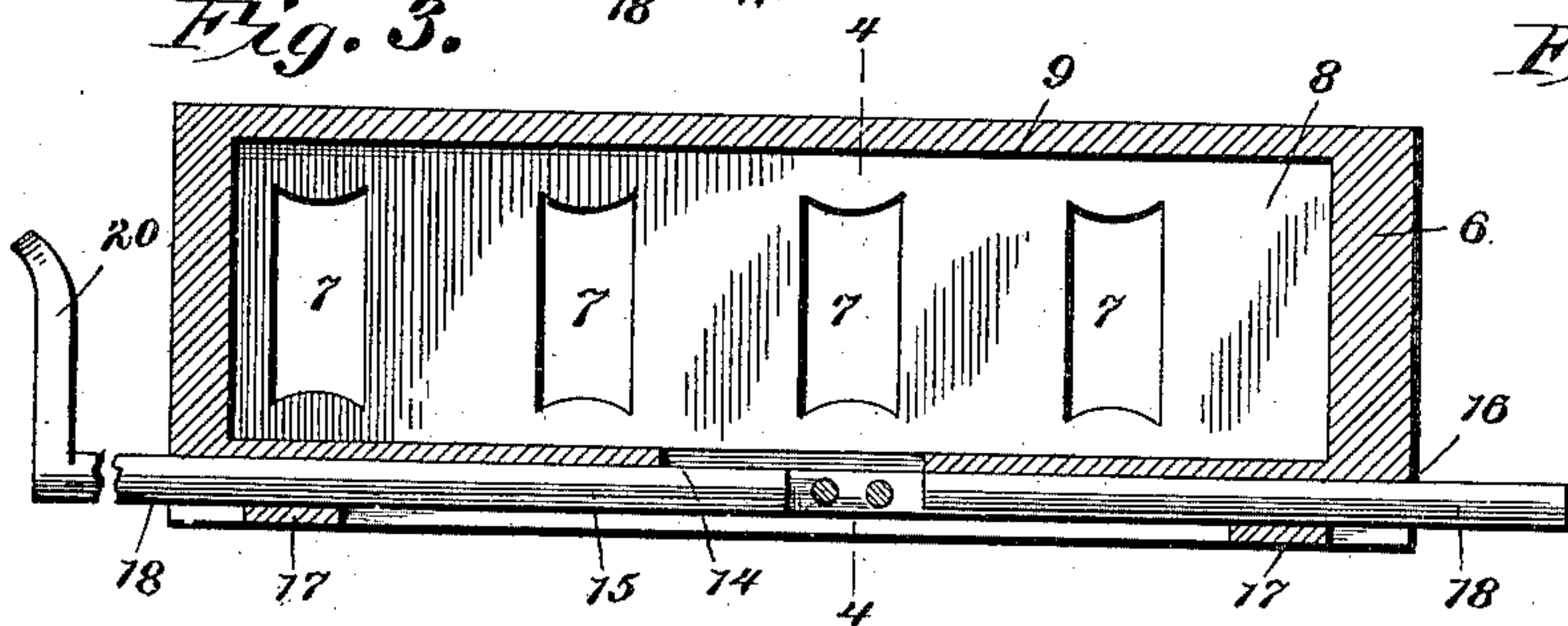


Fig. 4.

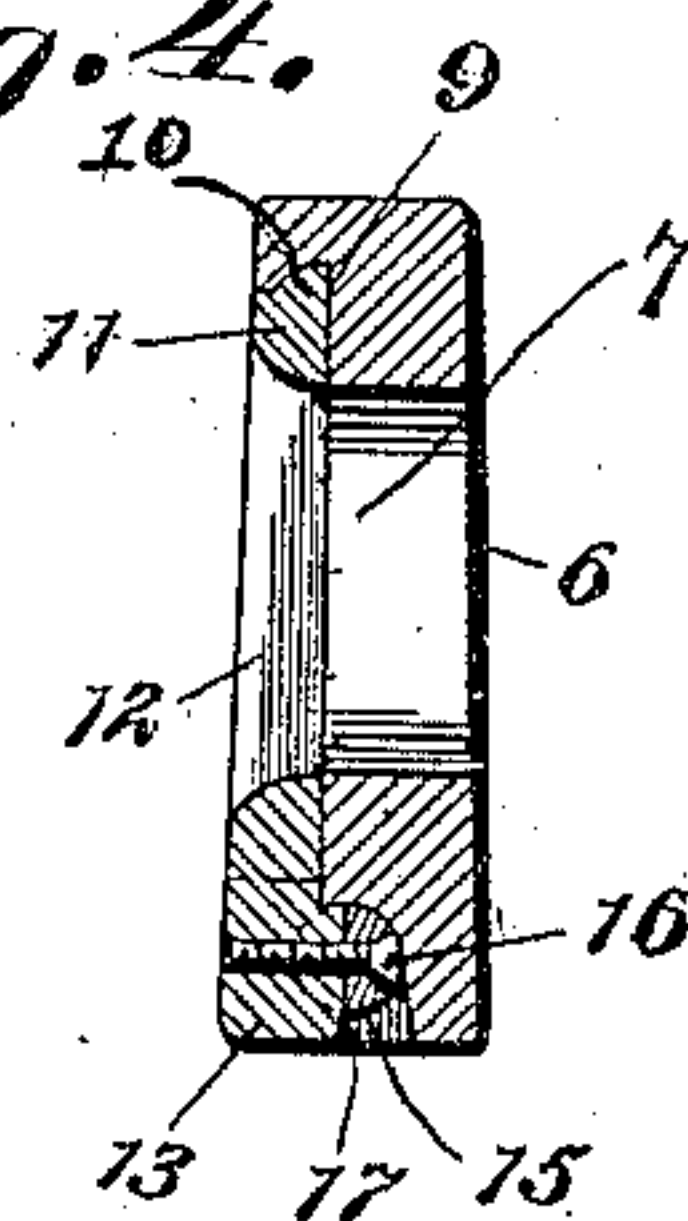
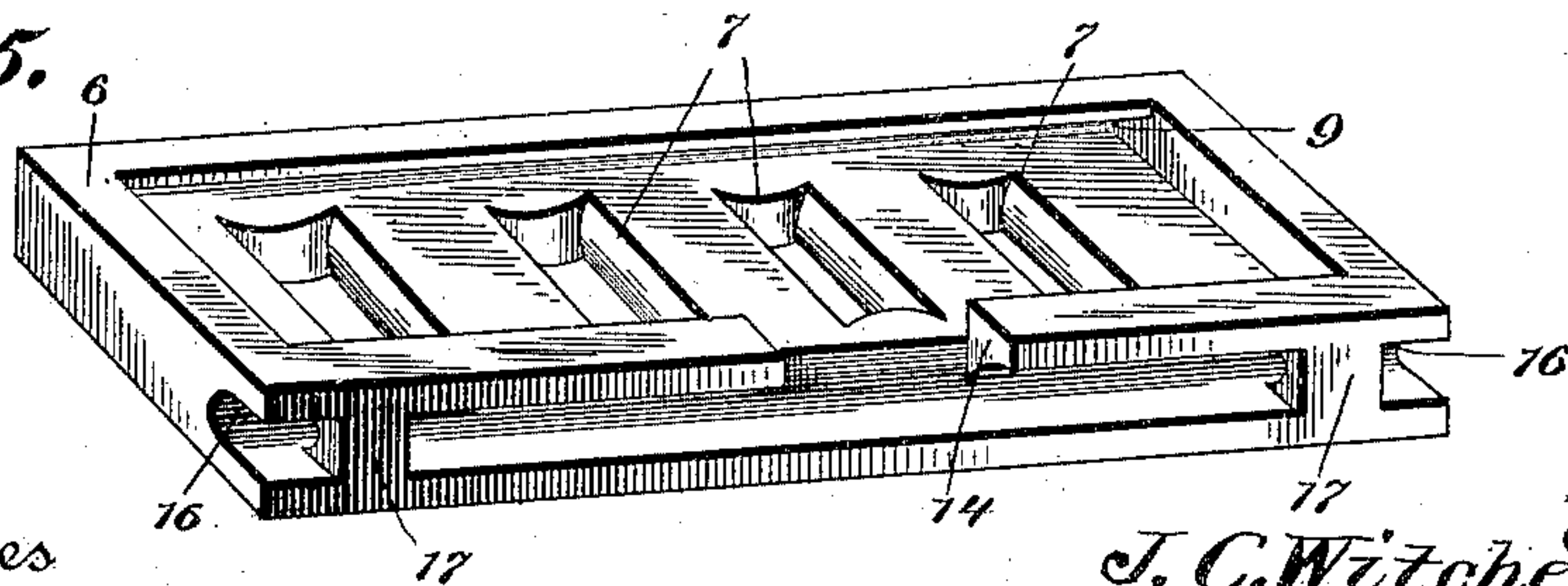


Fig. 5.



Witnesses

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By

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UNITED STATES PATENT OFFICE.

JOHN C. WITCHER, OF CONROE, TEXAS, ASSIGNOR OF ONE-HALF TO C. W. NUGENT, OF SAME PLACE.

STOVE-DAMPER.

SPECIFICATION forming part of Letters Patent No. 662,661, dated November 27, 1900.

Application filed January 17, 1900. Serial No. 1,795. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. WITCHER, a citizen of the United States, residing at Conroe, in the county of Montgomery and State of Texas, have invented a new and useful Stove-Damper, of which the following is a specification.

This invention relates to stove-dampers, and has special reference to that type of dampers which are employed in connection with stoves and ranges to provide means for controlling the draft through the smoke-exit flue communicating with the stovepipe-opening; and it has for its object to provide a new and useful construction of damper of this character having simple and efficient means for increasing or diminishing the draft to any desired degree.

To this end the invention primarily contemplates a damper-valve which not only subserves the usual function of an ordinary cooking-stove damper which works over the smoke-exit flue, but also acts as a draft-regulating device to provide for regulating the draft when the damper is thrown to a closed position.

With this and other objects in view the invention consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

The principal features of the invention are susceptible to some modification without departing from the spirit or scope thereof. Still the preferred embodiment of the improvements is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of a portion of an ordinary cooking-stove equipped with a damper, constructed in accordance with this invention. Fig. 2 is a detail perspective view of the damper removed from the stove. Fig. 3 is a longitudinal section of the damper, the line of section including the channel for the longitudinally-movable pivot-rod. Fig. 4 is a transverse sectional view on the line 4 4 of Fig. 3. Fig. 5 is a detail in perspective of the damper plate or body with the adjustable regulating-slide and pivot-rod removed therefrom.

Like numerals of reference indicate corresponding parts in the several figures of the drawings.

The present invention is applicable to all stoves and ranges where the exit or draft flue for the stovepipe is capable of being closed by a damper-valve on the line of its handle; but for the purpose of showing the application of the invention to an ordinary cooking-stove a portion of a stove of this type is shown in Fig. 1 of the drawings. In this figure of the drawings the numeral 1 designates the exterior body or casing of the stove, within which is arranged the usual oven 2, and which has fitted thereto the ordinary stovepipe 3. The stovepipe 3 is in communication with the smoke-exit flue 4, formed between the oppositely-arranged flue-plates 5, fitted within the stove-body between the latter and the oven 2. These are the usual parts of a cooking-stove, and the damper forming the subject-matter of the present application is designed to be arranged within the smoke-exit flue 4, between the flue-plates 5, so that it may be swung to an upright position to close the passage through the said exit-flue or thrown down upon the top of the oven to entirely uncover said flue when a full draft is desired.

Referring particularly to the damper claimed herein, the numeral 6 in the drawings designates the damper body-plate, which is preferably made of a single casting and is of an oblong rectangular configuration. The said plate or damper 6 is provided therein with a plurality of regularly-spaced draft holes or openings 7, which permit of a draft through the smoke-exit flue of the stove when the damper plate or body is thrown in an upright closed position, and the latter is further provided in one side or face thereof with a longitudinally-disposed slide-recess 8, which extends substantially the entire length of the body-plate. The slide-recess 8 conforms in shape to the rectangular configuration of the damper body-plate 6 and is provided at one side edge thereof with a longitudinal guide-groove 9. This guide-groove extends the full length of the recess 8 and slidably receives therein the contracted side edge 10 of an approximately flat adjustable

regulating-slide 11. The adjustable slide 11 lies flush within the slide-recess 8 and is of a shorter length than such recess to permit of the necessary play for covering and uncover-
 5 ing the draft holes or openings 7 in the body-plate 6. The said regulating-slide 11 is also provided with a plurality of ports 12, similar in shape and size to the draft holes or open-
 10 ings 7 and adapted to be thrown in and out of alinement with the latter, according to the requirements of the draft, when the damper is in its closed position, and at an intermedi-
 15 ate point between its ends the longitudinally-movable regulating-slide 11 has projected from one side edge thereof the offset lug 13, having a play within the guide-opening 14, formed in one side edge of the body-plate, said guide-opening being sufficiently long so
 20 as to not interfere with the proper adjustment of the slide within the recess or seat therefor.

The offset lug 13 of the regulating-slide is fitted to the longitudinally-movable pivot-rod 15 of the damper. This pivot-rod is slidably
 25 seated in the longitudinal rod-channel 16, formed in one side edge of the body-plate and contiguous to the ends of the rod-channel. The body-plate is further provided with the guide-webs 17, which serve to properly hold
 30 the rod in position within the channel, so that when the rod is moved in a longitudinal direction it will provide for moving the regulating-slide within its recess or seat. The end portions 18 of the pivot-rod beyond the
 35 ends of the body-plate constitute journals which are mounted in the usual bearings or openings of the flue-plates 5, and one end of the pivot-rod is extended through the side of the stove-body and provided with an exterior
 40 handle-arm 20, which is grasped by the operator to provide for either turning the damper on its pivot to cover and uncover the smoke-exit flue or to provide for sliding the regu-
 45 lating-slide to vary the area of the draft holes or openings which it is desired to expose for the passage of the products of combustion.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described stove-damper
 50 will be readily apparent to those skilled in the art without further description, and it will be understood that changes in the size, shape, proportion, and minor details of construction may be resorted to without depart-

ing from the spirit or sacrificing any of the 55 advantages of the invention.

Having thus described the invention, what is claimed is—

1. A stove-damper comprising a recessed rectangular body-plate provided with a plu- 60 rality of draft holes or openings, and a longitudinally-disposed slide seated within said recess and having its face flush with the face of the body-plate, said slide being of shorter length than the body-plate and provided with 65 a plurality of ports, and a longitudinally-movable pivot-rod mounted within one edge of the body-plate entirely inside of the plane of said edge and connected with the slide.

2. A stove-damper comprising a rectangu- 70 lar body-plate provided with a plurality of draft holes or openings, a longitudinally-disposed slide-recess in one face thereof, and with a longitudinal channel in one side edge thereof, an adjustable regulating-slide seated 75 flush within said recess and of a shorter length than the same, said slide being provided with a plurality of ports and at one edge with an offset lug, and a pivot-rod mounted for lon- 80 gitudinal movement within said channel at one edge of the body-plate and connected with the lug of the slide, substantially as set forth.

3. A stove-damper comprising a body-plate provided with a plurality of draft-holes and 85 with a slide-recess in one side face thereof, an adjustable regulating-slide seated within said slide-recess and provided with a lug movable within a guide-recess in the body-plate, a rod-channel formed in one edge face of the 90 body-plate and defined in part by guide-webs located in the plane of said edge, and a longitudinally-movable pivot-rod extending entirely through the channel and projecting be- 95 yond the ends of the damper to form journals, and means for connecting the lug of the slide to the rod at a point intermediate of the ends of the latter, means for securing an interlocking engagement between the slide and body-plate, and means for imparting rotary 100 movement to the pivot-rod.

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

JOHN C. WITCHER.

Witnesses:

J. W. LEWIS,

J. S. NUGENT.