

H. LANGE.
STOVE.

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1,044,061.

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Fig. 1.

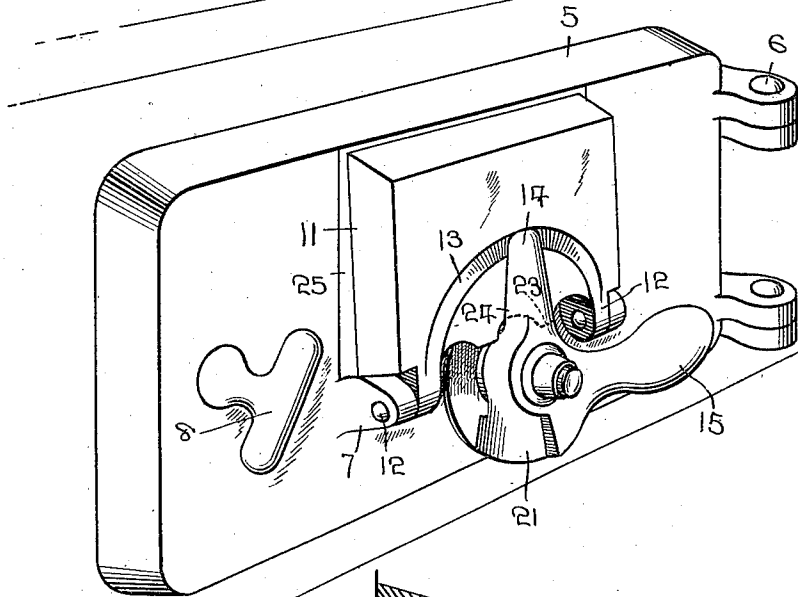
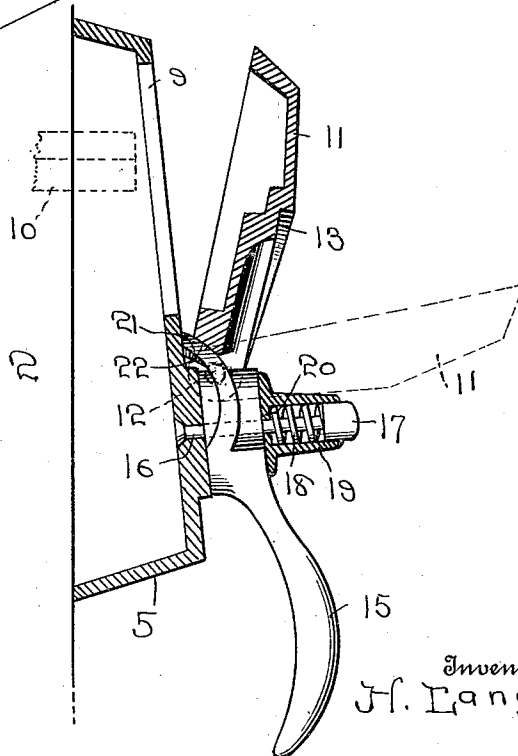


Fig. 2.



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STOVE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY LANGE, a citizen of the United States, residing at Quincy, in the county of Adams and State of Illinois, have invented certain new and useful Improvements in Stoves; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to stoves, and it more particularly relates to a combined opener and fastener for a stove door or closure.

15 An object of the invention is to provide, in connection with an ash-pit door or the like, means for opening said door by the simple manipulation of a handle, whereby the door may also be partially or entirely closed, said opening and closing means being mounted independently of the door.

20 A still further object is to provide a device of the character described which may be operated either by hand or by the foot of an operator.

25 A still further object is to provide frictional means, resiliently mounted, for holding the door actuating element in adjusted position.

30 Other objects and advantages will be hereinafter made clearly apparent in the specification and claims.

In the accompanying drawings, which are made a part of this application, Figure 1 is a perspective view of the complete device, and, Fig. 2 is a vertical sectional view through the central portion thereof.

Referring to the drawings, in which similar reference numerals designate corresponding parts throughout the several views, an ash-pit door is designated by the numeral 5, being pivotally secured to the body of the stove at 6, in the usual manner. The door 5 is provided with lug 7, and with the usual knob 8, by which it may be opened, closed and fastened. The door 5 is provided with an opening 9, through which a shaker shaft 10 may be easily operated, in the usual manner, when said opening is not closed. The opening 9 is provided with a closure 11, which is pivoted to the lug 7 by pins 12, and is adapted to be swung in a vertical plane, into closed position, as in Fig. 1, or into open position, as shown in full lines and in dotted lines, in Fig. 2. This closure is provided with an arcuate cam-surface 13, which co-

acts with an arm 14, for closing the closure 11, in a manner hereinafter described.

The actuator consists of an L-shaped member, of which the arm 14 forms the vertical portion, and a handle 15 constitutes the horizontal portion when the actuator is in its normal position, in which the closure 11 is closed. The actuator is pivoted to the door 5 at a point approximately under the vertical center of the closure 11, and is adapted to be swung through an arc of approximately 90°, on a pivot pin 16 extending therethrough. The pin 16 is provided with a head 17 against which is seated a helical spring 18. A housing 19 incloses the spring 18 and a portion of the pin 16 and head 17, said housing being seated upon the actuator and being provided with a shoulder 20 adjacent to its bottom, against which is seated the spring 18. It will be seen that the spring 18, acting against the head 17 and the shoulder 20, presses the housing 19 into frictional contact with the actuator and thereby holds it in any of its several adjusted positions.

The actuator is provided with a convexed cam-surface 21 which will hereafter be known as the opener.

In operation, considering the device in its normal position, as in Fig. 1; if the handle 15 be moved downwardly until the arm 14 passes the lower right portion of the cam-surface 13, the closure 11 will be opened by contact of the opener 21 with the inclined surface 22 of the closure 11. At this stage of the operation the portion 23 of the closure rests upon the portion 24 of the arm 14 and supports the closure; so that, as the handle 15 is moved farther, the arm 14 is further lowered, thereby allowing the closure 11 to open wider until it has reached the position shown in broken lines in Fig. 2. Obviously, when it is desired to again close or partially close the closure 11, this may be accomplished by swinging the handle rightward and upward, so that the portion 24 of the arm 14 bears upwardly on the portion 22 of the closure 11, and the arm 14 comes into contact with the cam-surface 13, and co-acts with the spring 20, for holding the closure firmly and resiliently against the seat 25 of the door 5.

It will be seen that the mechanism described is capable of attaining the foregoing objects, and in a thoroughly practical and efficient manner.

I do not limit my invention to the exact details of construction, combination and arrangement of parts, as described and illustrated, but my invention may only be limited by a reasonable interpretation of the following claims.

What I claim as new is:

1. In a stove having an opening therein, a closure for the opening pivoted to the stove on a plane below the opening and adapted to be swung in a vertical plane, an actuator pivoted to the stove below the closure and adapted to be swung into operative relation with the closure for opening and closing the latter.

2. In a stove having an opening therein, a closure for the opening pivoted to the stove and having a cam-surface, an actuator

pivotaly connected to the stove and adapted to be swung into contact with the cam-surface for closing the closure, a housing seated upon the actuator and having a spring therein, said spring being coöperatively related with the pivot of the actuator for holding the housing in frictional contact with the actuator whereby the latter may be securely held in different adjusted positions, for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY LANGE.

Witnesses:

A. H. STORK,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."