

(No Model.)

I. DE HAVEN.  
STOVE.

No. 481,226.

Patented Aug. 23, 1892.

FIG. 1-

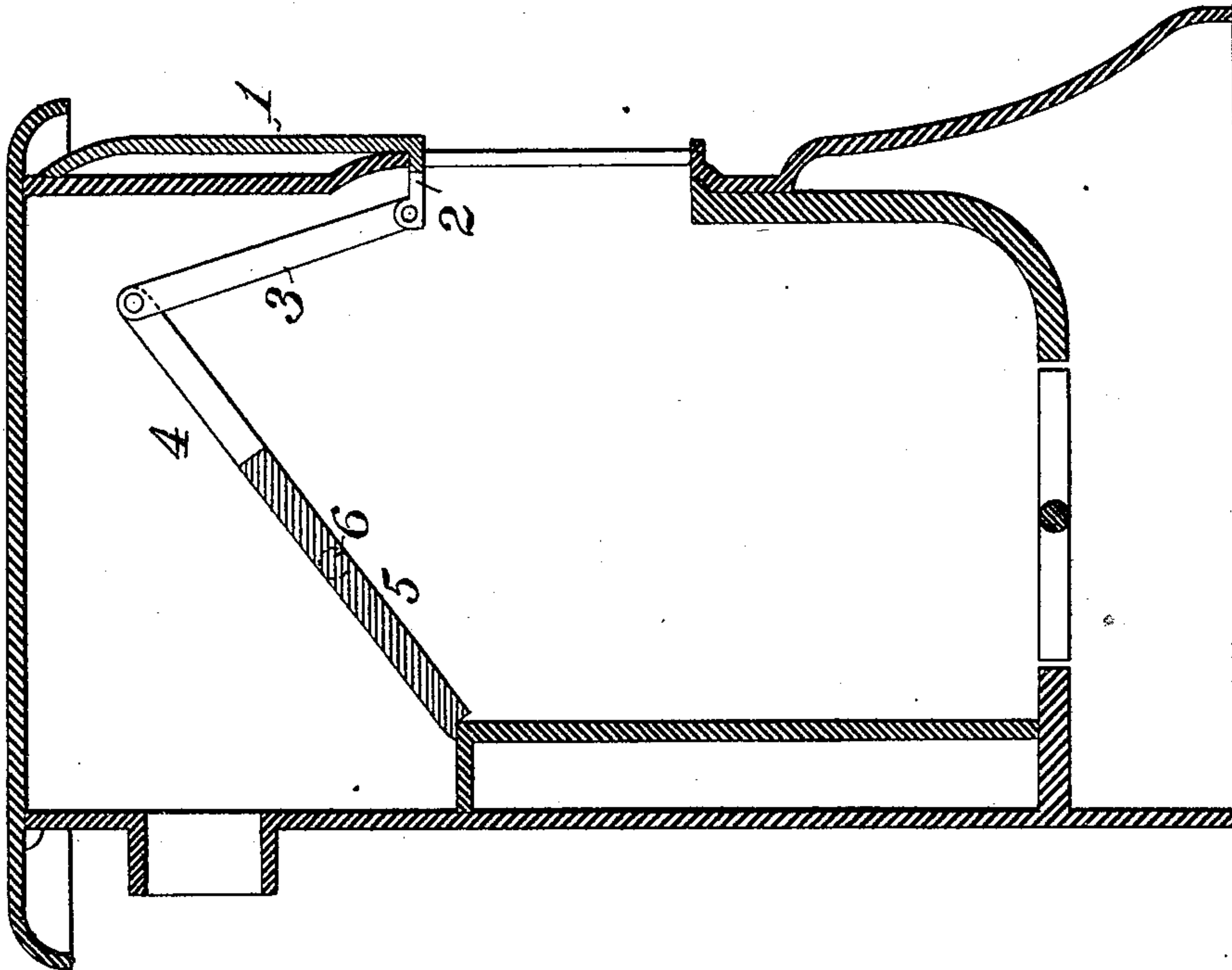
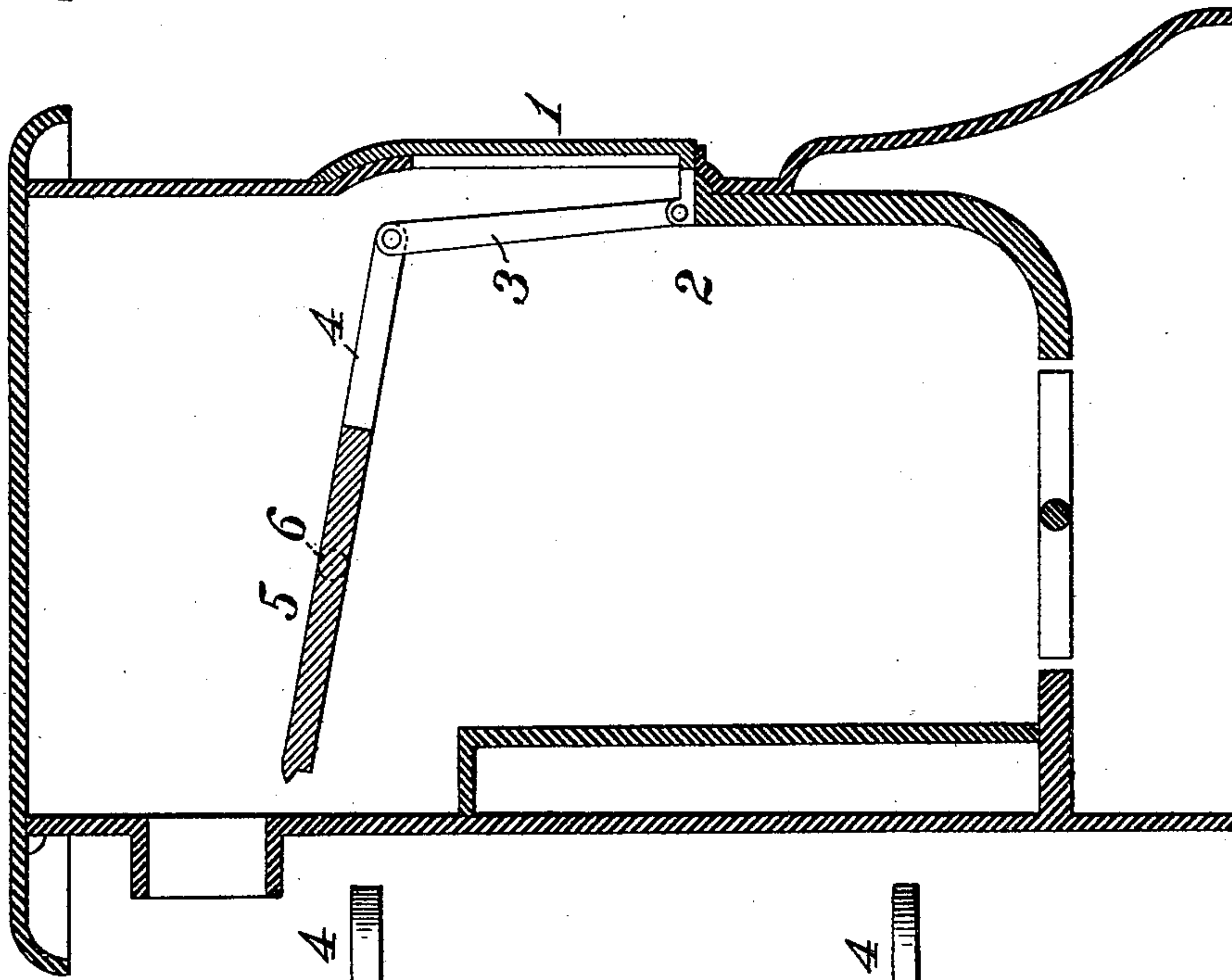


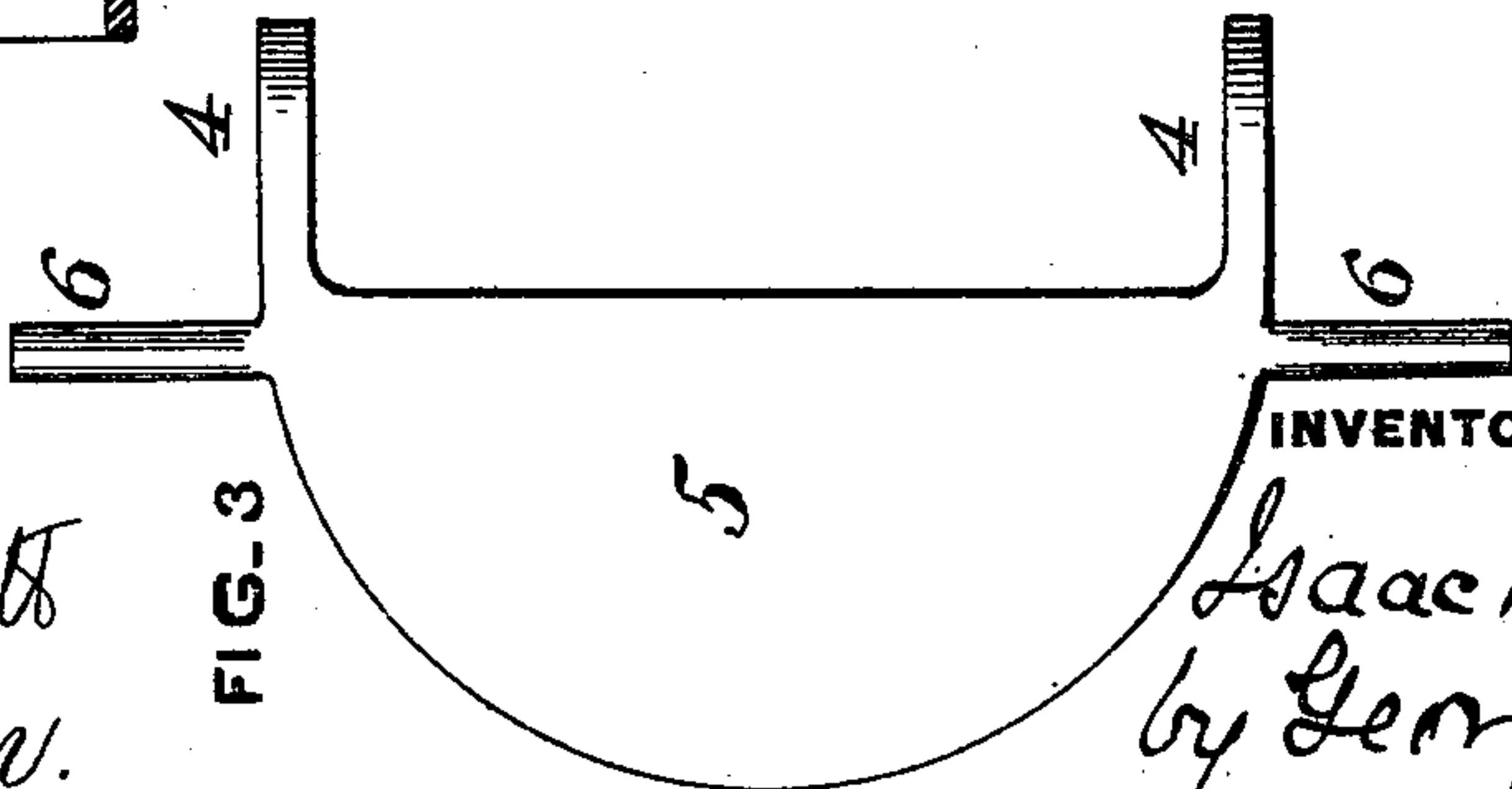
FIG. 2-



WITNESSES:

*Danville S. Wolcott*  
*F. E. Gaither.*

FIG. 3



INVENTOR,

*Isaac De Haven,*  
*by George H. Christie*  
Att'y.

# UNITED STATES PATENT OFFICE.

ISAAC DE HAVEN, OF ALLEGHENY, PENNSYLVANIA.

## STOVE.

SPECIFICATION forming part of Letters Patent No. 481,226, dated August 23, 1892.

Application filed March 18, 1892. Serial No. 425,412. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC DE HAVEN, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented or discovered a certain new and useful Improvement in Stoves, of which improvement the following is a specification.

The invention relates to certain improvements in stoves of that class or kind wherein the front of the stove is closed by a vertically-movable door.

It has heretofore been customary to employ weights arranged at the side of the stove and connected by chains passing over guide-pulleys at the top of the stove to the top of the door to support the latter in its elevated position. This class or kind of stoves has generally incorporated therewith a plate known as a "deflecting-plate," which is so secured in the stove that the products of combustion are caused to traverse the upper part of the stove before reaching the flue.

It is the object of the present invention to utilize this deflecting-plate as a counter-balance for the door.

In general terms the invention consists in the construction and combination substantially as hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a sectional elevation of a stove having my improvement applied thereto, the door being shown in its elevated position and the deflecting-plate in such position as to cause the circuitous traverse of the products of combustion. Fig. 2 is a similar view, the door being shown closed and the deflecting-plate in an elevated position; and Fig. 3 is a detail view showing the deflecting-plate in plan.

In the practice of my invention the stove proper is constructed in any usual or suitable manner and the sliding door 1 is mounted thereon in the customary way. This door is provided at its lower edge with inwardly-projecting arms 2, which are connected by links 3 with the arms 4, projecting from the deflecting-plate 5. As shown in the drawings, the deflecting-plate is provided with pivotal

pins 6, which are mounted in suitable bearings in the side of the stove, such bearings being so located that the rear edge of the deflecting-plate will when in its lowered position rest upon the back lining of the stove, as shown in Fig. 1. The arms 4 project forward toward the front of the stove and are preferably made of such a length that when the deflecting-plate is in its horizontal position the inner ends of said arms will be in line, or nearly so, with the inner ends of the arms 2, so that when the deflecting-plate is depressed the arms 5 will exert a practically straight upward pull on the door. The body portion of the deflecting-plate is made sufficiently heavy to counterbalance the weight of the door, so that the latter may be retained in an elevated position or any point intermediate between that and its closed position.

It will be observed that by connecting the door and deflecting-plate in the manner described the closing of the door will raise the deflecting-plate, and thereby open a direct passage for the products of combustion to the outlet-flue. When the door is raised, the deflecting-plate will be shifted to the position which it normally occupies and the products of combustion will be caused to traverse the upper portion of the stove before reaching the outlet-flue.

I claim herein as my invention—

1. In a stove, the combination of a vertically-moving door and a movable deflecting-plate connected thereto and adapted to serve as a counter-balance for the door, substantially as set forth.

2. In a stove, the combination of a vertically-movable door and a pivoted deflecting-plate provided with forwardly-projecting arms connected to the door, whereby the latter is adapted to serve as a counter-balance for the door, substantially as set forth.

In testimony whereof I have hereunto set my hand.

ISAAC DE HAVEN.

Witnesses:

DARWIN S. WOLCOTT,  
W. B. CORWIN.