

No. 614,765.

Patented Nov. 22, 1898.

J. A. ROE.
BALANCE FOR OVEN DOORS.
(Application filed May 25, 1898.)

(No Model.)

FIG. 1.

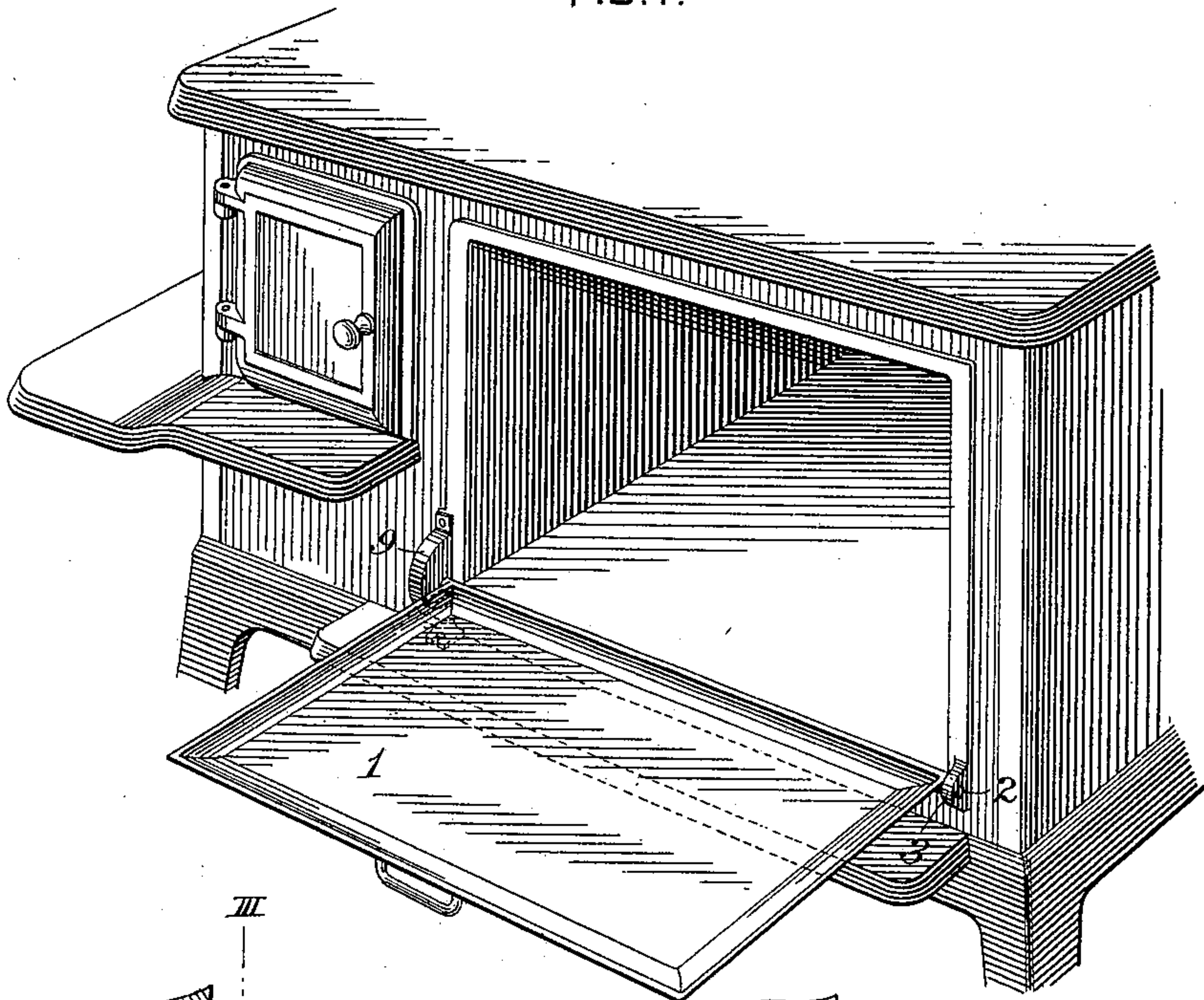


FIG. 2.

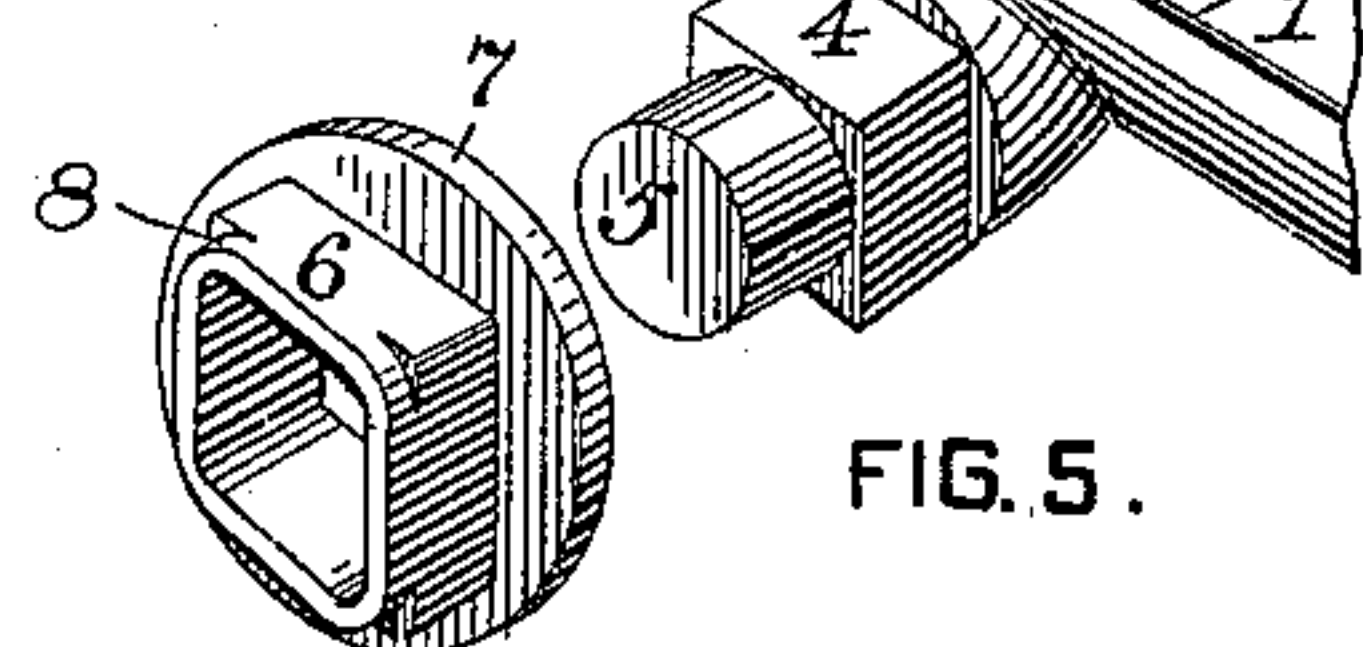
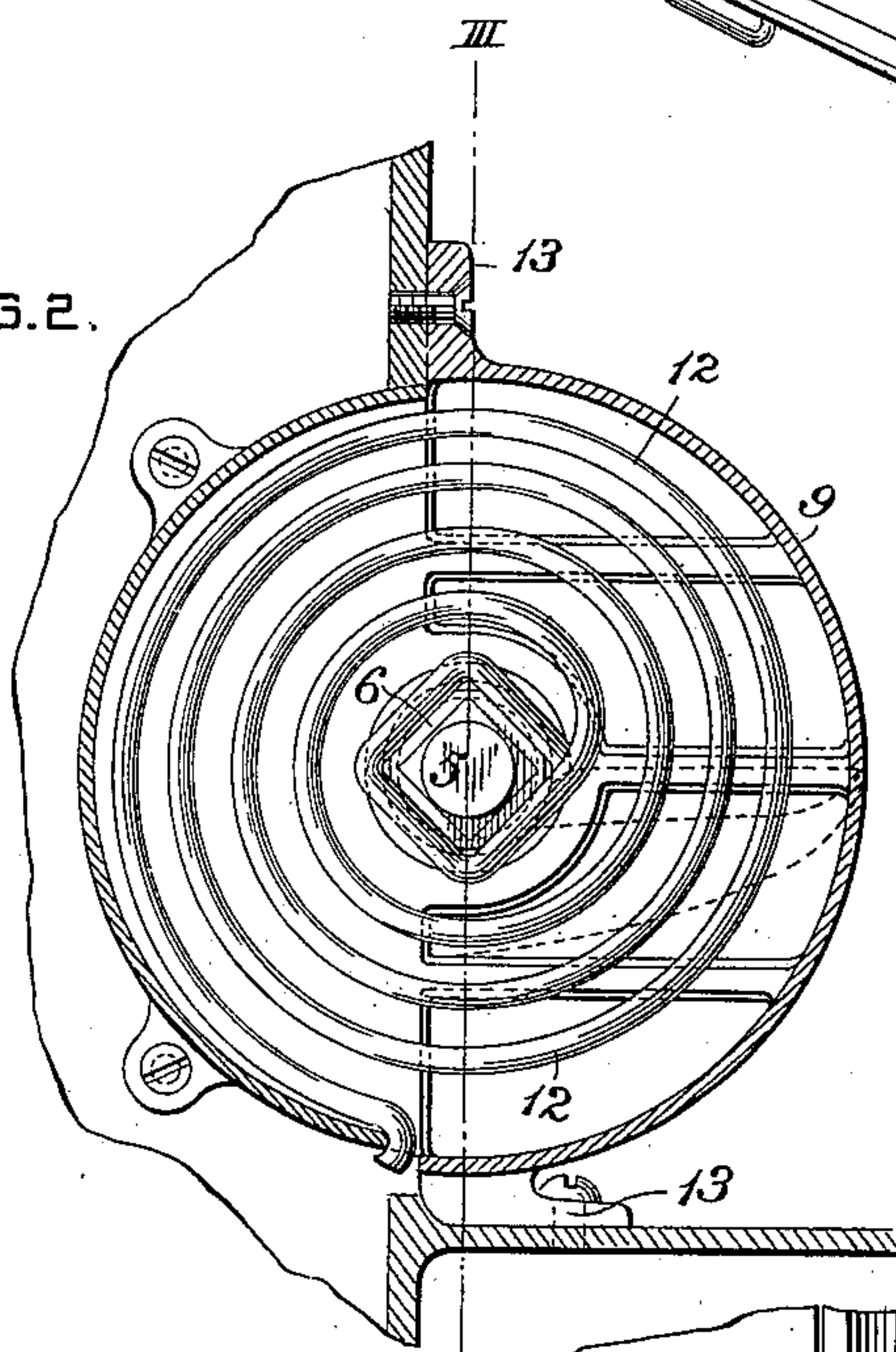


FIG. 5.

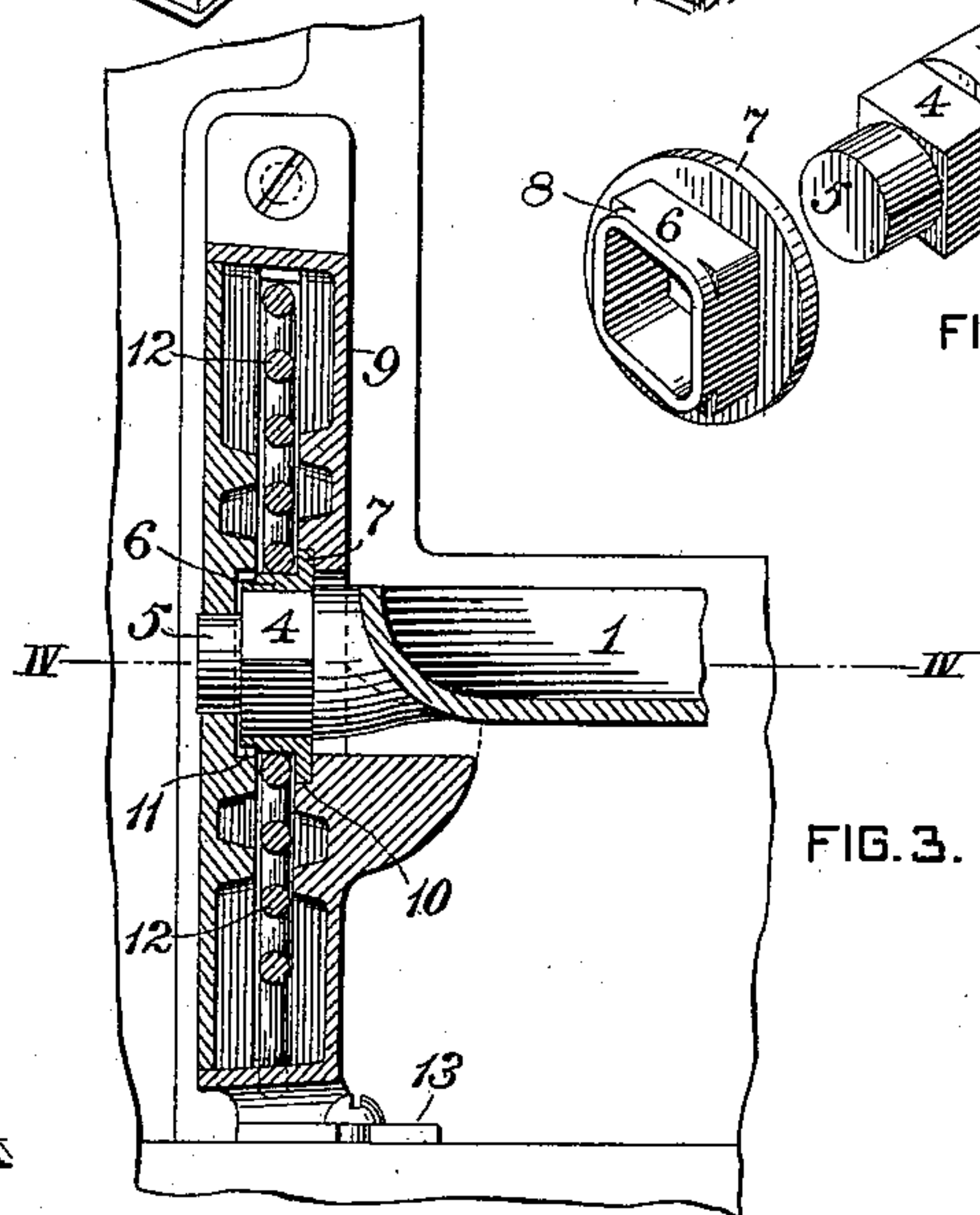
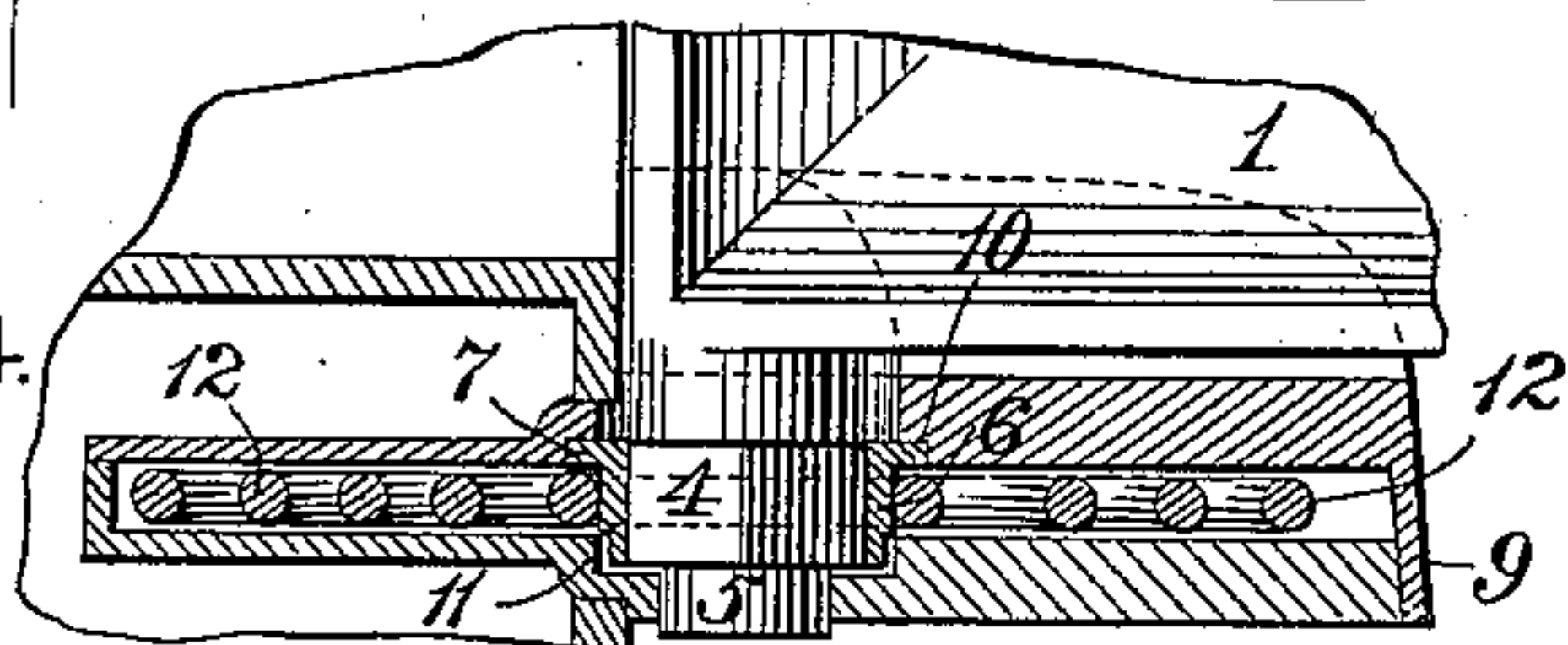


FIG. 3.

WITNESSES:

Chas. F. Miller
Wm. H. C. Skine

FIG. 4.



INVENTOR,

John A. Roe
by Dennis S. Wolcott
Att'y.

UNITED STATES PATENT OFFICE.

JOHN A. ROE, OF SEWICKLEY, PENNSYLVANIA.

BALANCE FOR OVEN-DOORS.

SPECIFICATION forming part of Letters Patent No. 614,765, dated November 22, 1898.

Application filed May 25, 1898. Serial No. 681,692. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. ROE, a citizen of the United States, residing at Sewickley, in the county of Allegheny and State of Pennsylvania, have invented or discovered certain new and useful Improvements in Balances for Oven-Doors, of which improvements the following is a specification.

The invention described herein relates to certain improvements in vertically-swinging oven-doors, and has for its object the provision of a resilient or yielding support for the door whereby the latter is prevented from injury by dropping down. Many devices have been employed for this purpose, such as weights and springs. The weights are generally arranged in flues alongside of the oven, and although concealed they are objectionable, as they partially close or choke the flues. The springs as heretofore applied required the employment of a skilled workman to apply or renew.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of a stove having my improvement applied to the oven-door. Fig. 2 is a sectional elevation, on an enlarged scale, of the spring-balance. Fig. 3 is a transverse vertical section, the plane of section being indicated by the line III III, Fig. 2. Fig. 4 is a horizontal section, the plane of section being indicated by the line IV IV, Fig. 3; and Fig. 5 shows in perspective a portion of the door and the spring-actuated sleeve.

In the practice of my invention the door 1 is provided at one end with the usual round pin or pintle 2, adapted to fit in the opening in the ear or lug 3, formed on the stove-plate adjacent to the oven. The pintle at the opposite end of the door is provided with a square or angular portion 4 and outer round or journal portions 5. A sleeve 6, internally shaped to fit the portion 4 of the pintle and provided at one end with a circular flange 7 and at its opposite end with a rounded portion 8, is inclosed in a circular case or shell 9. The inner wall or side of this case is provided with a circular opening sufficiently large to permit of the free passage of the squared or angular portion 4 of the pintle and in its outer wall with an opening, the sides of which are adapted to serve as a bearing for the journal portion 5 of the pintle. The side plates of the shell or casing are pro-

vided with seats or bearings 10 and 11 for the flange 7 and rounded portion 8 of the sleeve. The inner end of a spring 12 is attached to the sleeve 6, while the outer end thereof is attached to the shell or case. A convenient manner of connecting the spring to the sleeve consists in winding the end portion of the spring around the sleeve, the outer perimeter of which is made square or angular in cross-section. The case or shell is provided with lugs or ears 13, whereby it may be secured to the stove-plate adjacent to the oven. As constructed only a portion of the case or shell will project into the flue or passage alongside of the oven; but as this portion is comparatively thin it will not materially choke or close the flue.

It will be observed that no mechanical skill will be necessary in applying these balances, it only being necessary to remove the screws passing through the lugs 13, slip off the old case or shell, and apply the new balance.

I claim herein as my invention—

1. The combination of an oven-door having a pintle angular in cross-section, a case or shell, a sleeve adapted to fit the pintle and rotatably mounted in the case or shell and a spring having one end connected to the sleeve and its opposite end to the case or shell, substantially as set forth.

2. A balance for oven-doors having in combination a case or shell, a sleeve adapted to receive an angular pintle and rotatably mounted in the case or shell, and a spring having its inner end attached to the sleeve and its outer end attached to the case or shell, substantially as set forth.

3. The combination of an oven-door having a pintle provided with angular and rounded portions, a case or shell provided with a bearing in one of its walls for the rounded portion of the pintle, a sleeve adapted to fit the angular portion of the pintle and rotatably mounted in the case or shell and a spring having one end connected to the sleeve and its opposite end to the case or shell, substantially as set forth.

In testimony whereof I have hereunto set my hand.

JOHN A. ROE.

Witnesses:

DARWIN S. WOLCOTT,
F. E. GAITHER.