

No. 609,773.

Patented Aug. 30, 1898.

J. H. BROWN.
HEATING STOVE.

(Application filed Jan. 31, 1898.)

(No Model.)

2 Sheets—Sheet 1.

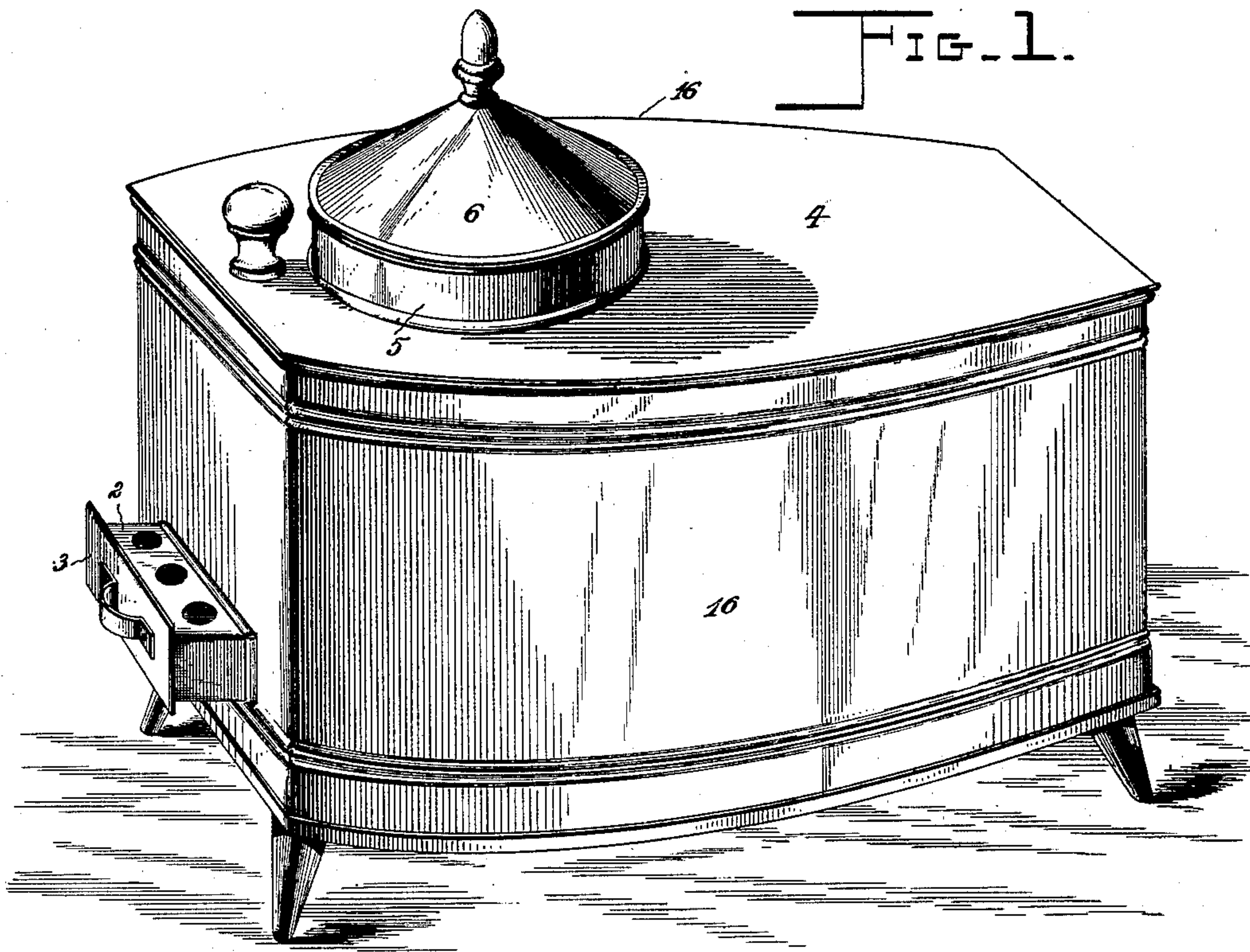
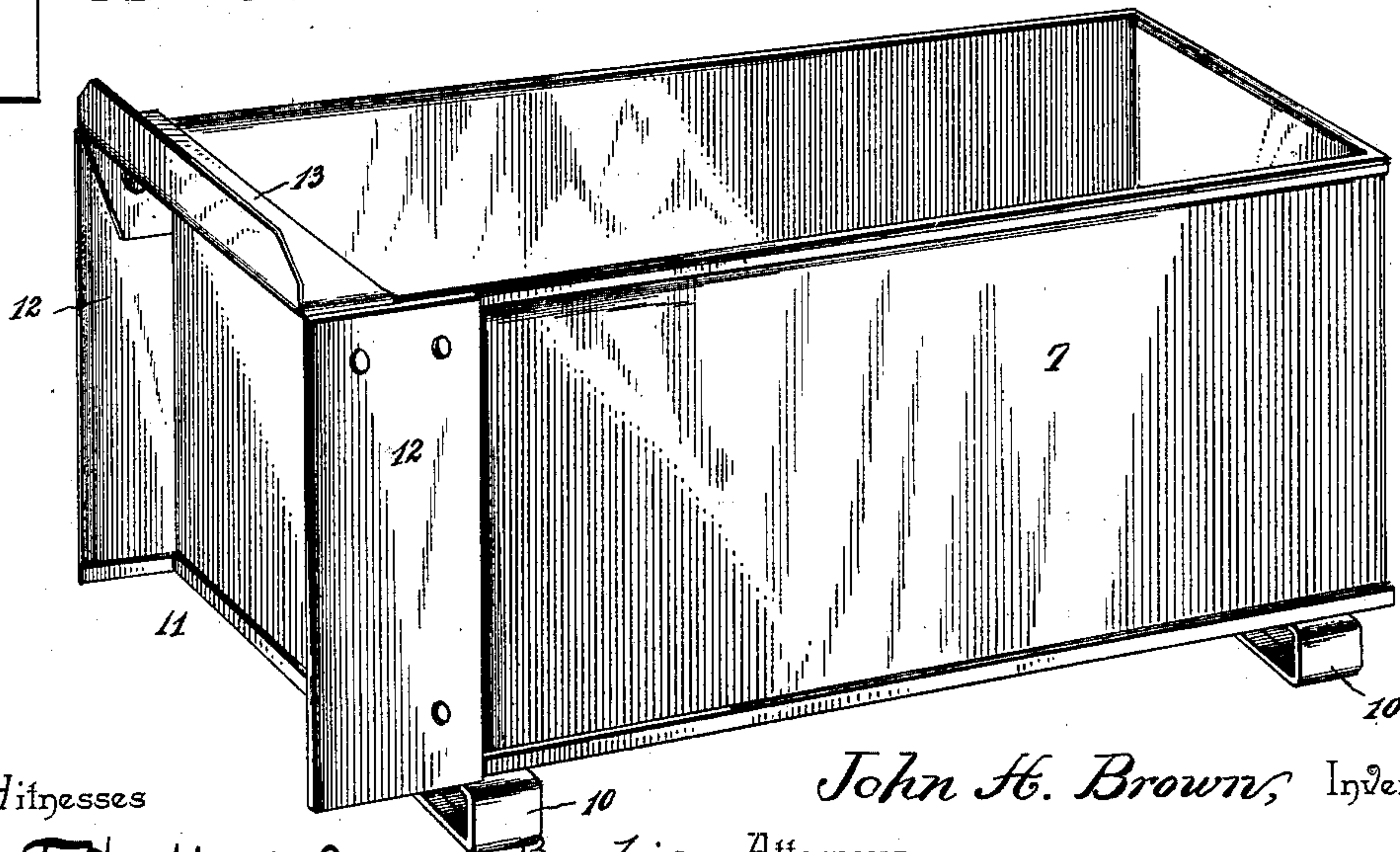


FIG. 5.



Witnesses

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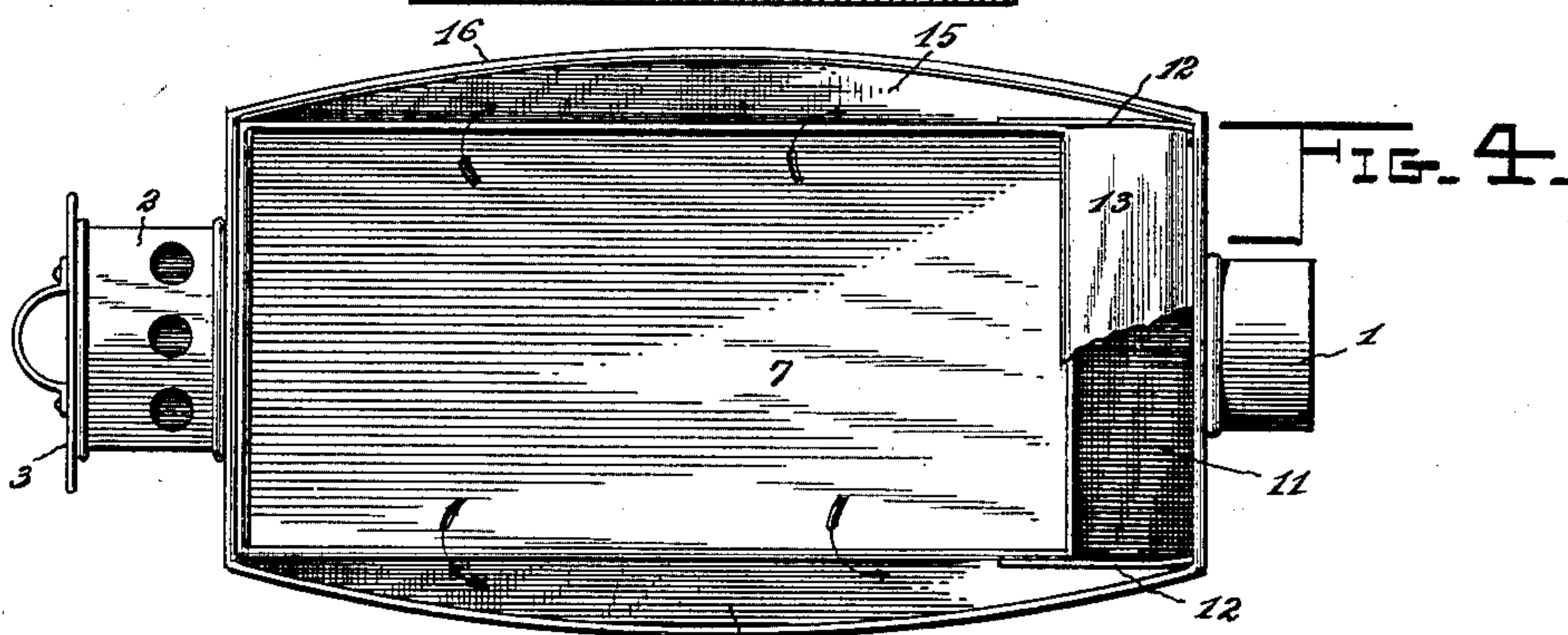
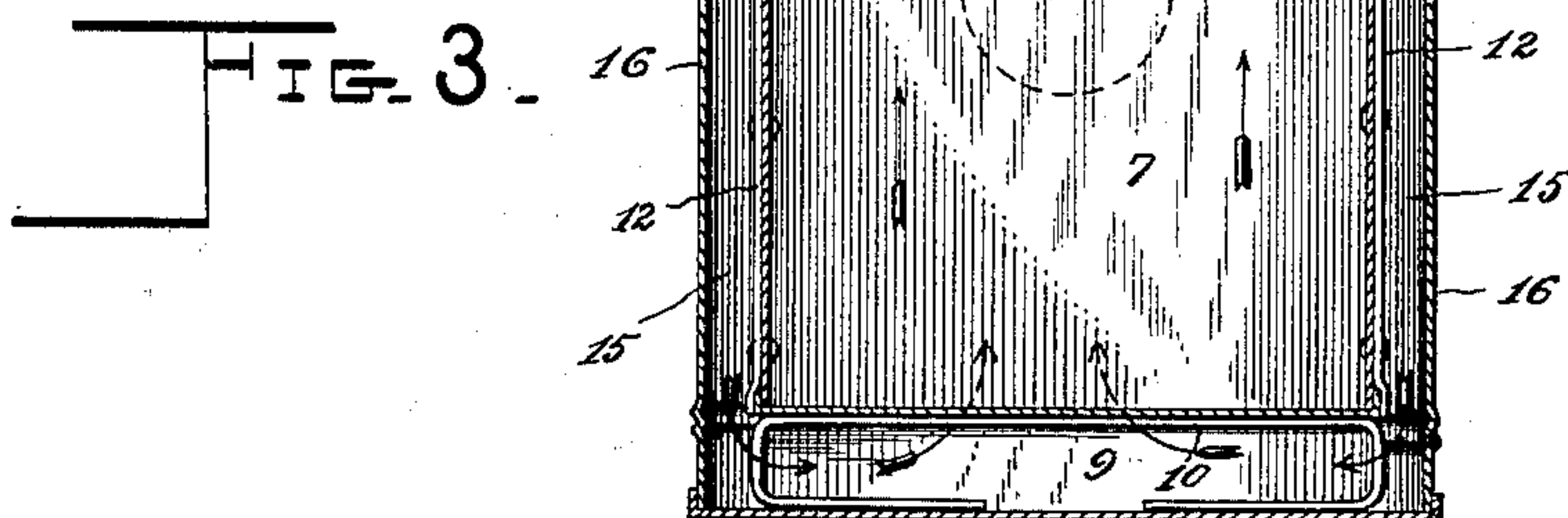
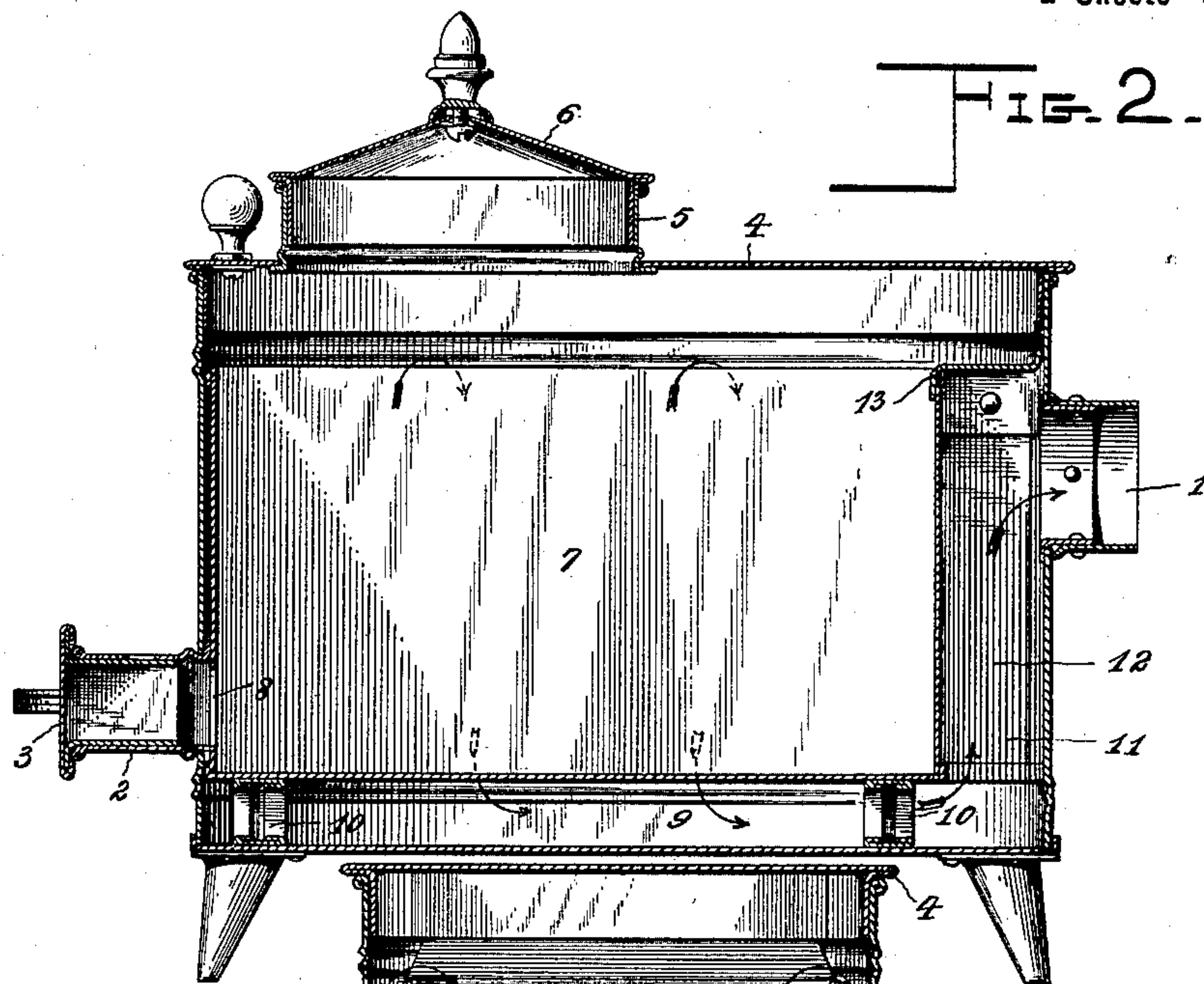
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Witnesses

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UNITED STATES PATENT OFFICE.

JOHN H. BROWN, OF HORTON, KANSAS.

HEATING-STOVE.

SPECIFICATION forming part of Letters Patent No. 609,773, dated August 30, 1898.

Application filed January 31, 1898. Serial No. 668,626. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. BROWN, a citizen of the United States, residing at Horton, in the county of Brown and State of Kansas, have invented a new and useful Heating-Stove, of which the following is a specification.

This invention provides a stove for burning wood and fuel of kindred nature of simple and economical construction, the parts being combined and related so as to admit of repairs being quickly and cheaply made when necessary.

In its organization the stove comprises a removable fire-box having spaces at its sides, bottom, and rear for the escape of smoke and products of combustion and whereby an extended heating-surface is obtained. The side spaces are provided in a simple manner by bulging or deflecting outwardly the sides of the stove-body, the end portions of said side engaging with the end portions of the fire-box, so as to maintain the latter in proper position and from lateral displacement.

The improvement consists of the novel details of construction and the combinations of parts, which hereinafter will be more particularly set forth, illustrated, and finally claimed.

For a full understanding of the merits and advantages of the invention reference is to be had to the accompanying drawings and the following description.

The improvement is susceptible of various changes in the form, proportion, and the minor details of construction without departing from the principle or sacrificing any of the advantages thereof, and to a full disclosure of the invention an adaptation thereof is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of a heating-stove constructed in accordance with this invention. Fig. 2 is a central longitudinal section thereof. Fig. 3 is a transverse section. Fig. 4 is a plan view, the cover being omitted and a portion of the deflector broken away. Fig. 5 is a perspective view of the fire-box.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The stove, like heaters of this variety, is constructed of sheet metal and is of oblong

form and mounted upon legs. A collar 1 is applied to the upper portion of the rear end of the body, and the smoke-pipe (not shown) is fitted thereto in the usual manner.

An offstanding collar 2 of rectangular shape is applied to the lower portion of the stove-front and is formed in its top side with a series of openings, which are closed by the rim or flange applied to the door 3, closing the open end of the said collar 2. By drawing the door 3 outward more or less the draft can be regulated, inasmuch as the openings in the top side of the collar 2 will be more or less uncovered. The fire may be stirred and the ashes and burned coals removed through the collar 2 by drawing the door 3 outward.

The top of the stove is closed by a cover 4, conforming to the outline of the stove in plan view and having a depending rim or flange to fit therein. This cover or top 4 is removably fitted to the stove, so as to admit of access being readily had to the interior thereof for removing the fire-box or for other purposes. An opening is formed in one end of the top or cover 4 and is surrounded by a vertical rim 5, and this rim is closed by a cover 6. The fire is replenished by supplying fuel to the stove through the opening surrounded by the rim 5 and closed by the cover 6.

The fire-box 7 is removably fitted into the body of the stove through its open top and is of rectangular shape and of a size approximating the dimensions of the stove. The sides of the fire-box are straight, and its front end touches or comes close against the inner side of the front of the stove and has an opening 8 in coincident relation with the collar 2 when the fire-box is in proper position. The fire-box is supported a short distance above the bottom of the stove, forming a bottom space 9, strips 10 being secured to the bottom portion of the fire-box, near the ends thereof, and having their end portions bent backward and extending toward each other and forming supports to sustain the fire-box when in proper position.

The rear end of the fire-box is located a short distance from the rear end of the stove, thereby providing a rear space 11. Plates 12 are secured to the sides of the fire-box and project beyond the rear end thereof a distance corresponding to the depth or width of

the space 11, and the rear edges of these plates 12 touch the inner side of the rear end of the stove and are intended to prevent the escape of smoke or products of combustion, thereby insuring the desired circulation. A third plate 13 is secured to the upper edge of the rear end of the fire-box and projects from the rear thereof a distance corresponding to the projecting portions of the plates 12 and has its end portions bent and secured to the upper ends of the side plates 12. This top plate 13 constitutes a deflector and closes the upper end of the rear space 11 and causes the smoke and products of combustion to pass through the collar 1 into the smoke-pipe. The rear edge portion of the plate or deflector 13 is bent upwardly, forming a lip or flange, which bears against the inner side of the rear end of the stove and insures a close joint being secured, thereby preventing the escape of smoke or gases. The fire-box, when placed within the stove and resting upon the bottom thereof, has its top below the top of the stove, whereby a space is formed between the top or cover 4 and the upper portion of the fire-box to admit of the smoke and products of combustion passing over the upper edges of the sides of the fire-box and down through the side spaces 15.

As shown and described, the sides of the fire-box are straight and parallel, and in order to provide the side spaces 15 the sides 16 of the stove-body are bulged or deflected outwardly between their ends, and this construction in addition to providing the side spaces stiffens and strengthens the stove-body and enables the ends thereof to touch the end portions of the fire-box and hold the latter in proper position. When the stove is in operation, the smoke and products of combustion pass over the upper edges of the sides of the fire-box, downward through the side spaces 15, thence along the bottom space 9, and up

through the rear space 11, and out through the collar 1 into the smoke-pipe connected therewith. An extended heating-surface is thus provided and the fuel is utilized to the best possible advantage.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. The combination of a stove-body, a fire-box open at the top and having its sides and back spaced from the body and forming intercommunicating rear, side and bottom spaces, means for supporting the fire-box above the bottom of the body, the side plates secured to the sides of the fire-box and projecting rearward therefrom and closing the sides of the rear space, and a top plate closing the upper end of the rear space, substantially as described.

2. In combination, a stove-body having its sides outwardly bulged, a fire-box having straight ends and sides and removably fitted within the stove-body and having intercommunicating rear, bottom and side spaces, the latter being formed by the outward bulge of the stove-body sides, strips secured to the bottom of the fire-box and having their end portions bent forming supports, plates secured to the sides of the fire-box and projecting in the rear thereof and closing the sides of the rear space, and a top plate closing the upper end of the said rear space and secured to the fire-box and having its rear portion bent upwardly to secure a close joint with the rear end of the stove-body, substantially as set forth.

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

JOHN H. BROWN.

Witnesses:

JOHN A. McCORMACK,
SHERIDAN WITCRAFT.