

No. 712,055.

Patented Oct. 28, 1902.

J. W. FUNK.

ASH PAN FOR STEAM BOILER FIRE BOXES.

(Application filed Mar. 2, 1901.)

(No Model.)

Fig. 1.

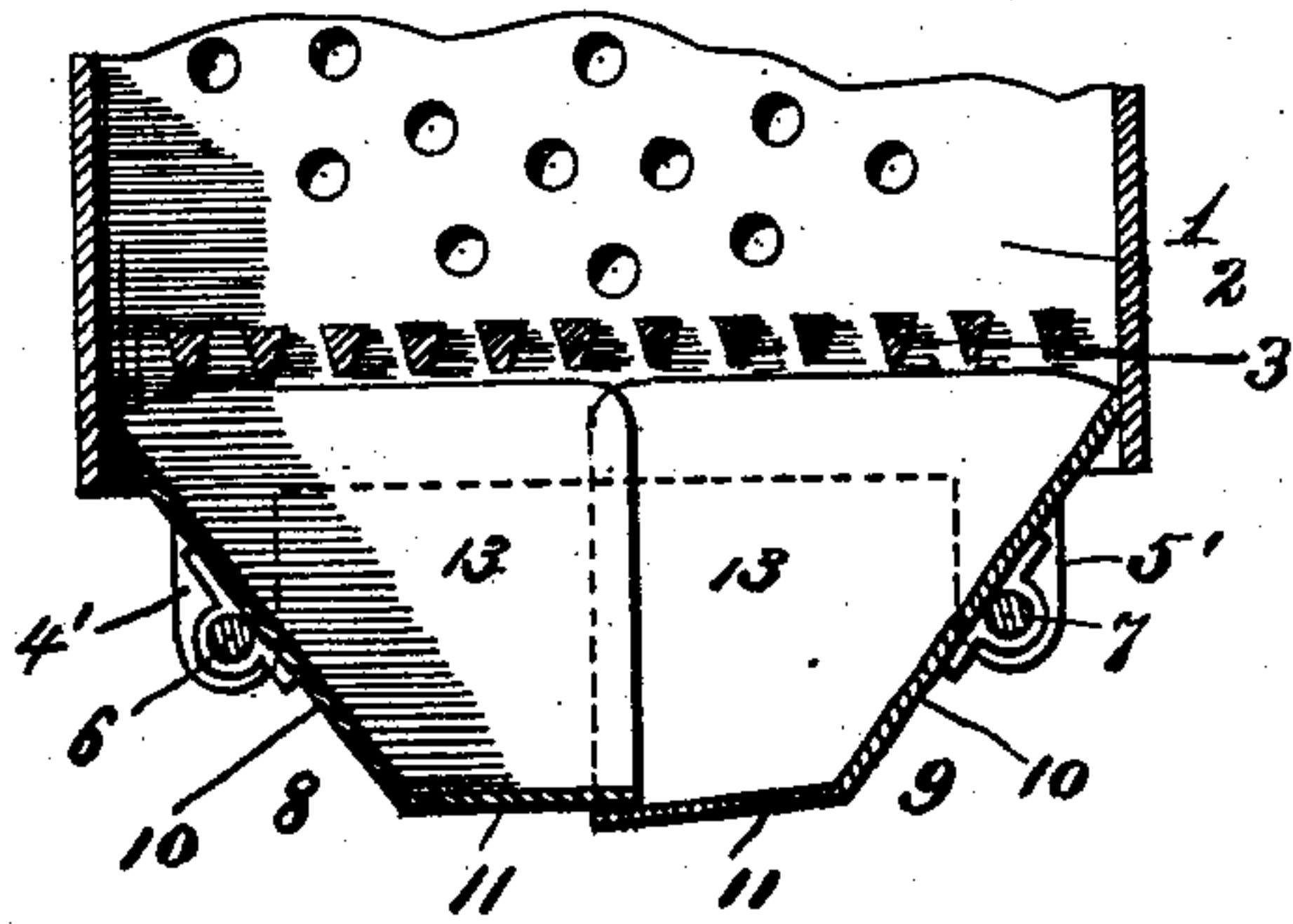


Fig. 2.

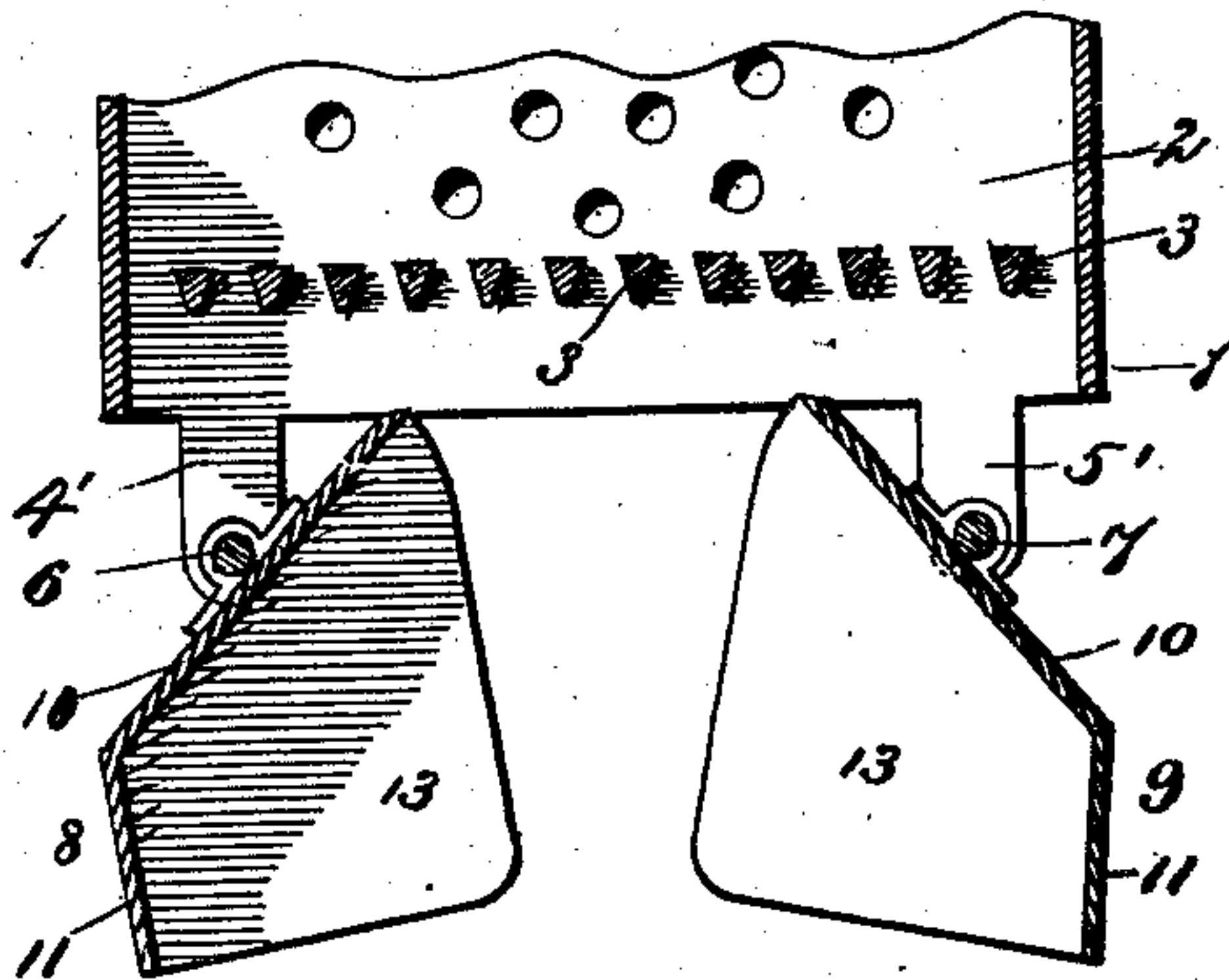


Fig. 3.

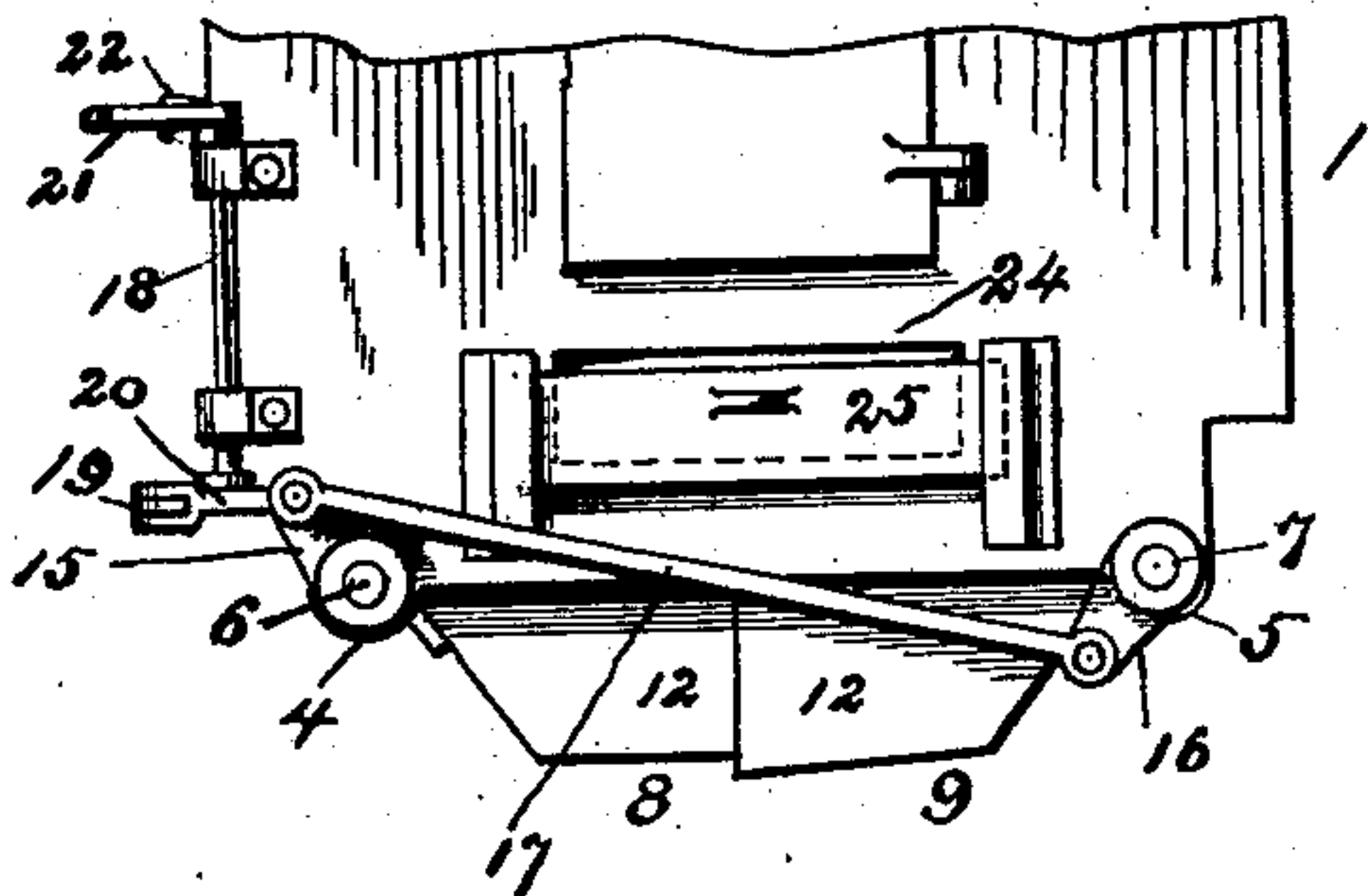


Fig. 4.

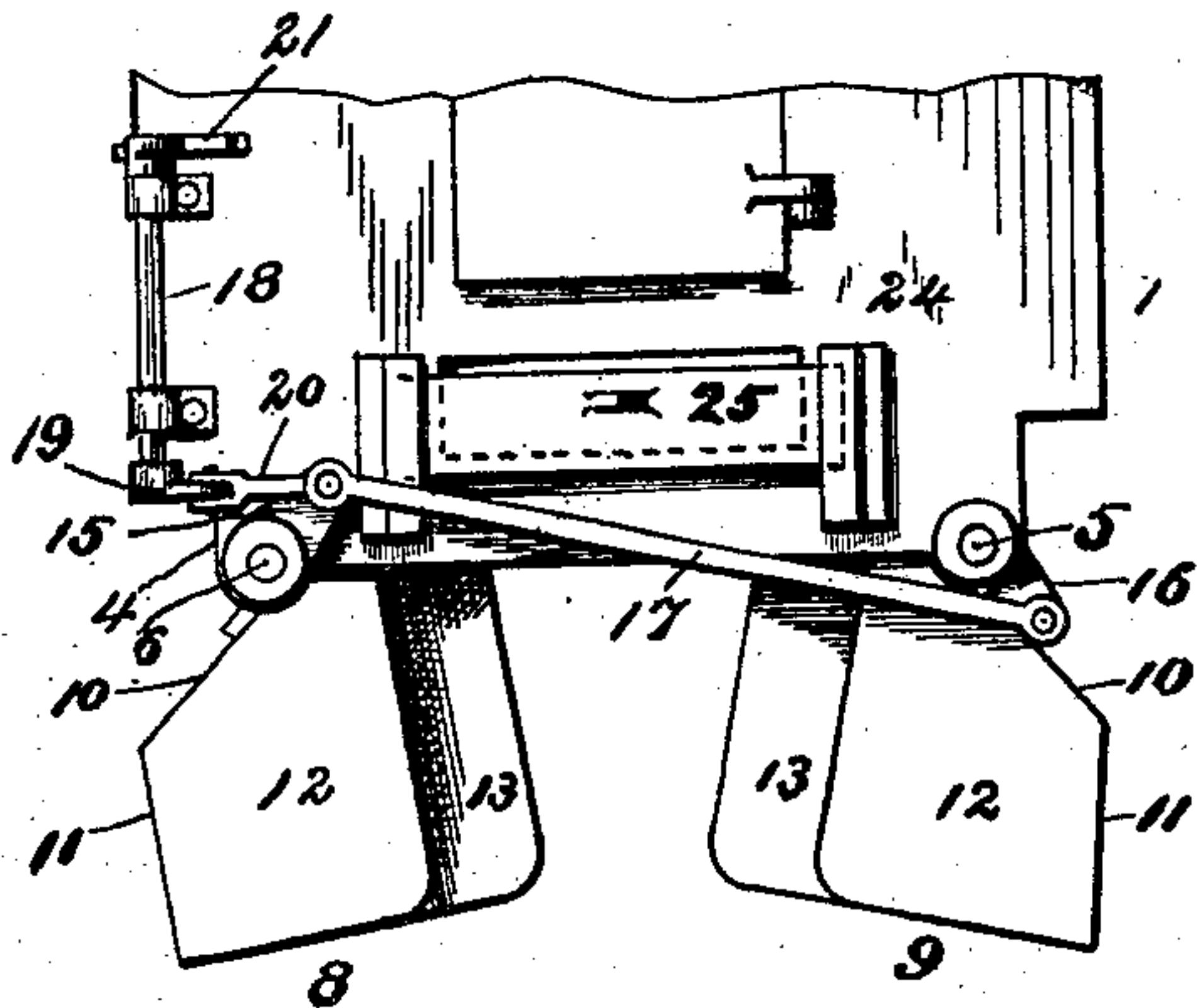


Fig. 5.

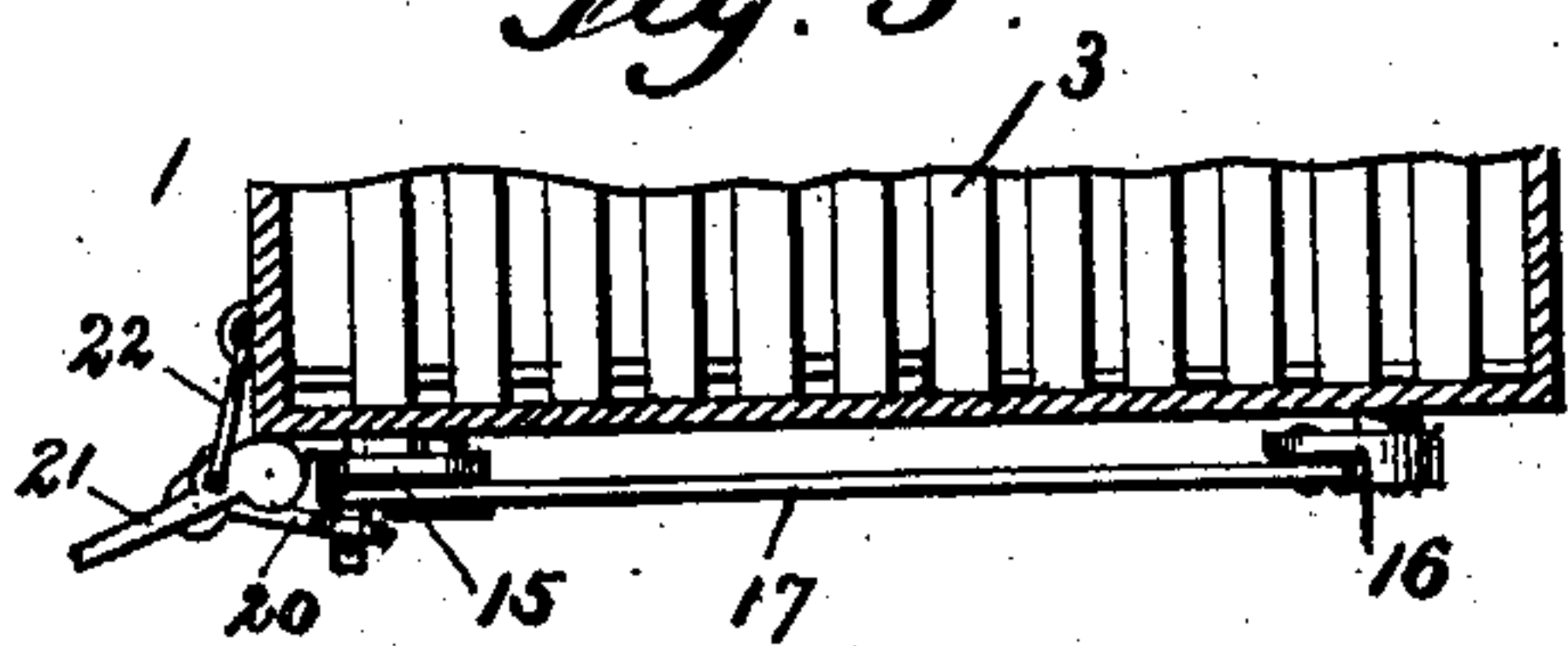


Fig. 6.

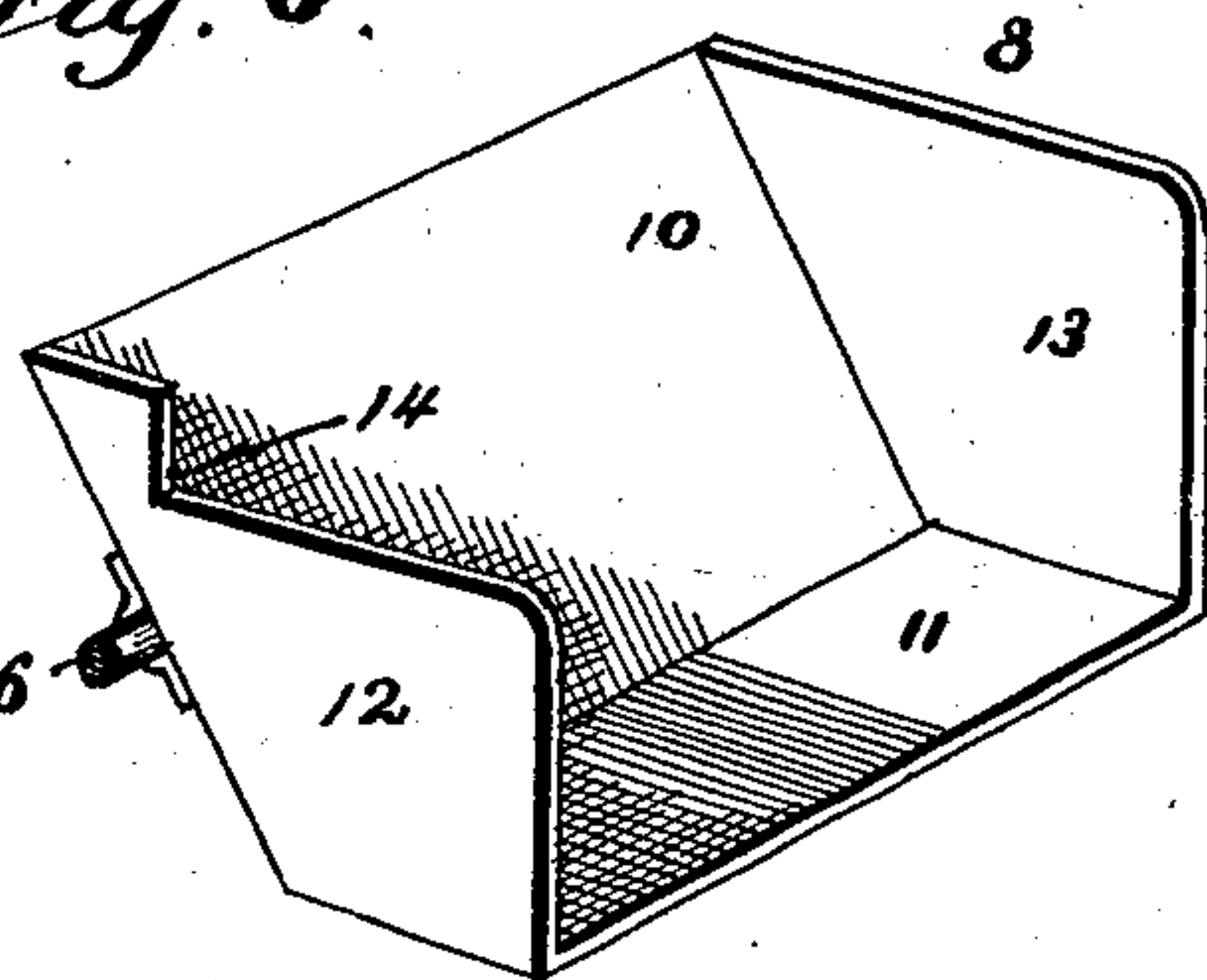
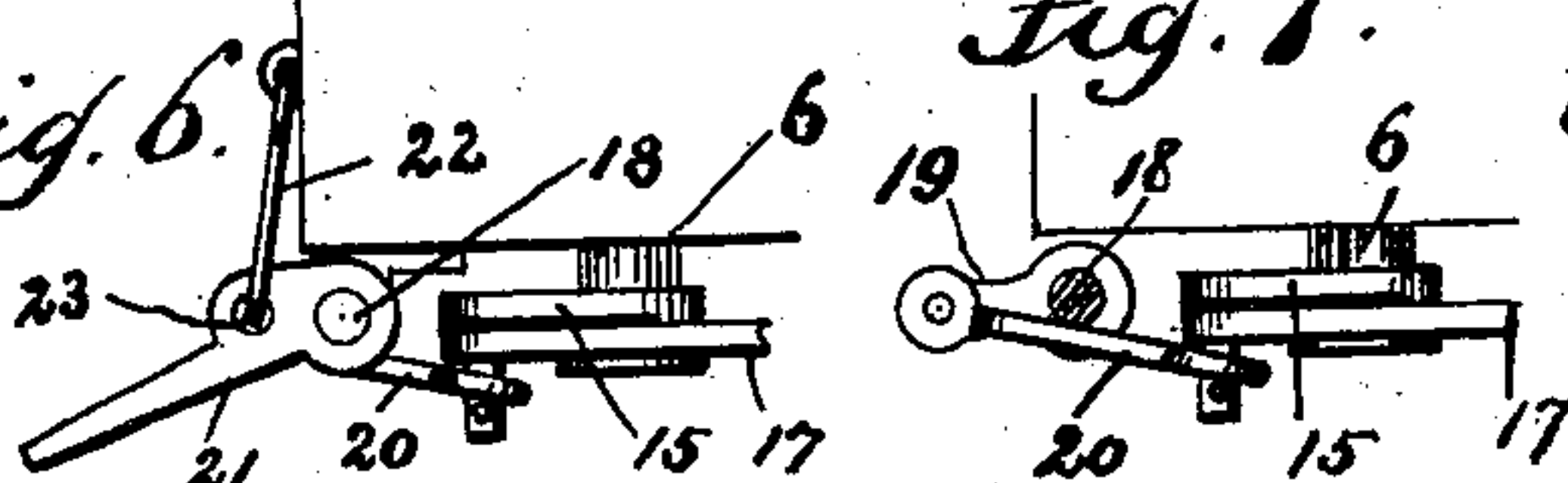


Fig. 7.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN W. FUNK, OF HANOVER, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS
TO HENRY M. FUNK AND HENRY V. KLUNK, OF HANOVER, PENNSYLVANIA.

ASH-PAN FOR STEAM-BOILER FIRE-BOXES.

SPECIFICATION forming part of Letters Patent No. 712,055, dated October 28, 1902.

Application filed March 2, 1901. Serial No. 49,593. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. FUNK, a citizen of the United States, residing at Hanover, in the county of York and State of Pennsylvania, have invented certain new and useful Improvements in Ash-Pans for Steam-Boiler Fire-Boxes; 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.

My invention relates to ash-pans and contemplates the provision of a device of the class named which although especially designed for and adapted to be used in connection with the fire-boxes of locomotive-boilers for the reception of refuse from the fire-box is yet adapted to be used with equally good results with the fire-boxes of boilers other than those named, both movable and stationary; and to the end set forth the invention consists in an ash-pan comprising independent movable sections and means for moving said sections into contact to form a close receptacle for ashes and out of contact to discharge such ashes, substantially as is hereinafter set forth, and illustrated in the accompanying drawings, wherein—

Figure 1 is a sectional view taken transversely through the fire-box of a locomotive-boiler provided with my improved ash-pan and shows said pan in position to receive ashes from the fire-box. Fig. 2 is a similar sectional view of said fire-box and its connected ash-pan, the latter shown in position to discharge its contents. Figs. 3 and 4 illustrate front elevation of a portion of a locomotive-boiler provided with my improved ash-pan, showing the means for operating the latter. Fig. 5 is a horizontal sectional view through part of a locomotive fire-box containing my invention. Figs. 6 and 7 are detached detail views of part of the operating mechanism comprised in my device. Fig. 8 is a perspective view of one of the movable ash-pan sections detached from the fire-box.

Similar numerals in the drawings denote similar parts.

While, as hereinbefore set forth, my invention is applicable to and may be advantageously used in connection with the fire-boxes of many different types of boilers, I have yet

in the accompanying drawings shown and shall hereinafter describe the same solely in its adaptation to the fire-box of a locomotive-boiler, to which the said invention, because of its peculiar construction and operation, is particularly applicable.

In my drawings I have shown that portion of a locomotive-boiler 1 which contains the fire-box 2 and grate 3. I provide said boiler 1, at the front and rear ends of the fire-box 2, below the grate 3, with depending lugs 4 4' and 5 5', having apertures for rock-shafts 6 and 7, which carry the separate sections 8 65 and 9 of my improved ash-pan. (See Figs. 1 and 2.) The sections 8 and 9 are similar in construction, each comprising a single inclined side 10, a bottom 11, and front and rear sides 12 and 13, the former of which is cut away at 14 to permit the passage of air below the grate 3, as hereinafter noted.

The sections 8 and 9 of the ash-pan are respectively carried by and rigid with the rock-shafts 6 and 7 and are through the rotation of said shafts, by mechanism presently to be described, held either in the position shown in Figs. 1 and 3, in which position they co-act to form a closed receptacle for ashes from the fire-box above, or in the position shown 80 in Figs. 2 and 4, in which the said sections are shown as swung outward to dump their contents.

I provide the shafts 6 and 7 with rock-arms 15 and 16 and connect said arms together by a rod 17 to insure simultaneous movement of the shafts 6 and 7 and the sections 8 and 9, rigid therewith. (See Figs. 3 and 4.) I impart motion to the shafts 6 and 7 through a rock-shaft 18, that is journaled to the boiler and provided at its lower end with a rock-arm 19, which is connected by a rod 20 with rock-arm 15 of the shaft 6. (See Figs. 3, 4, and 7.) The rock-shaft 18 is actuated to move the shafts 6 and 7 by an arm 21, which projects from the shaft 18.

That the sections 8 and 9 may be normally maintained in the proper position to hold ashes, as shown in Figs. 1 and 3, I preferably employ a hook 22, hinged to the boiler and adapted to engage an aperture 23 in the arm 21. (See Figs. 3, 5, and 6.)

I provide the boiler-front with an aperture 24, having a sliding cover 25 to admit when

desired a greater or a less quantity (as needed) of air below the grate.

The sections 8 and 9, while preferably made of boiler-iron, may, if desired, be made of
5 cast-iron.

From the foregoing description, taken in connection with the drawings, the action of my improved pan will be readily understood without further description.

10 Having thus described my invention, I claim and desire to secure by Letters Patent—

A sectional ash-pan comprising independent hinged sections each having an end cut

away to form an air-passage, a rod connect- 15
ing said independent sections, and means to impart simultaneous movement to said sections, in combination with the fire-box of a boiler, a port therein adjoining the cut-away portions of the pan-sections, and a cover to 20
close said port, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN W. FUNK.

Witnesses:

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