

No. 844,192.

PATENTED FEB. 12, 1907.

R. SCHNEIDER.  
VALVE.

APPLICATION FILED AUG. 24, 1906.

Fig. 1.

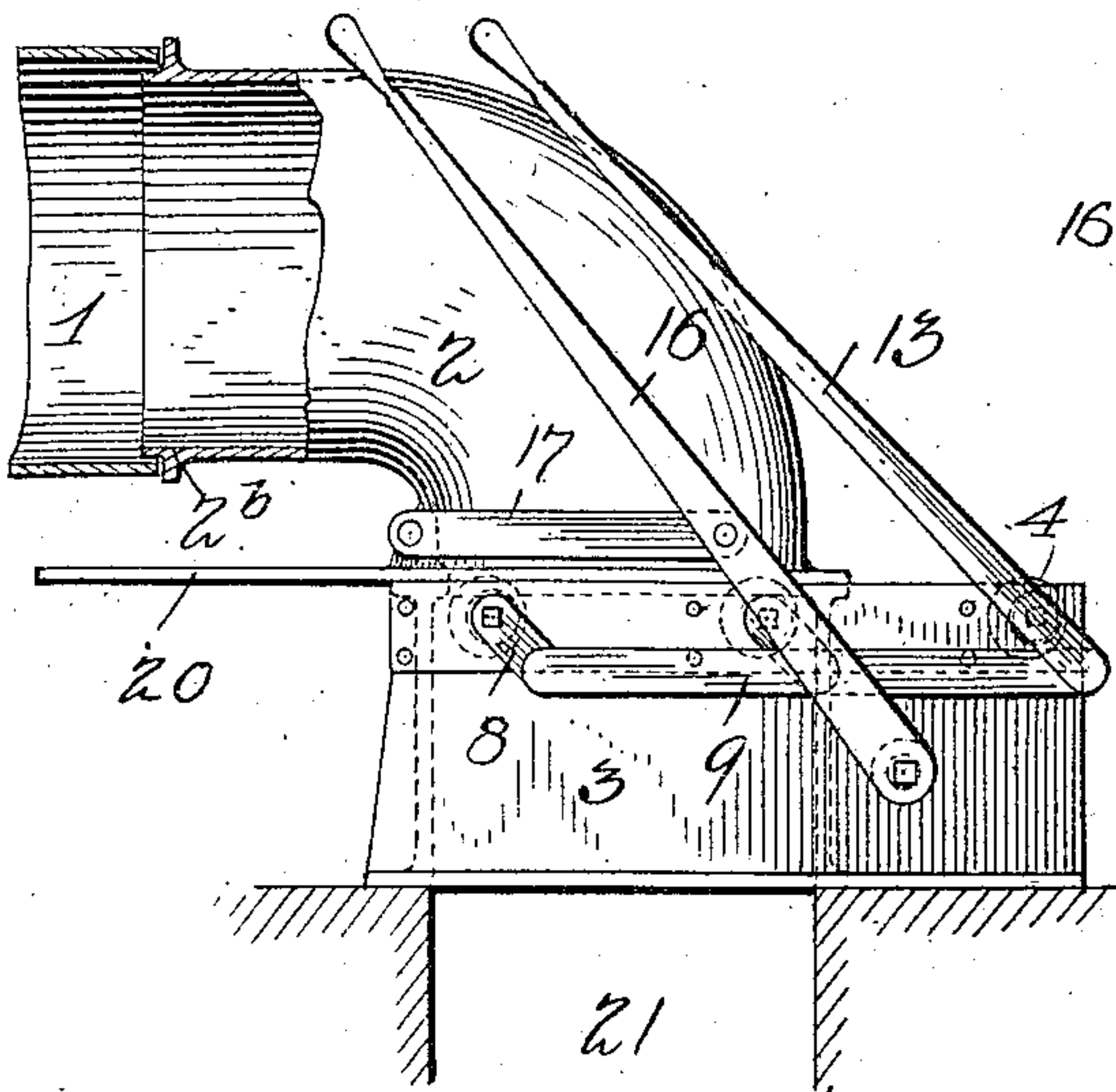


Fig. 2.

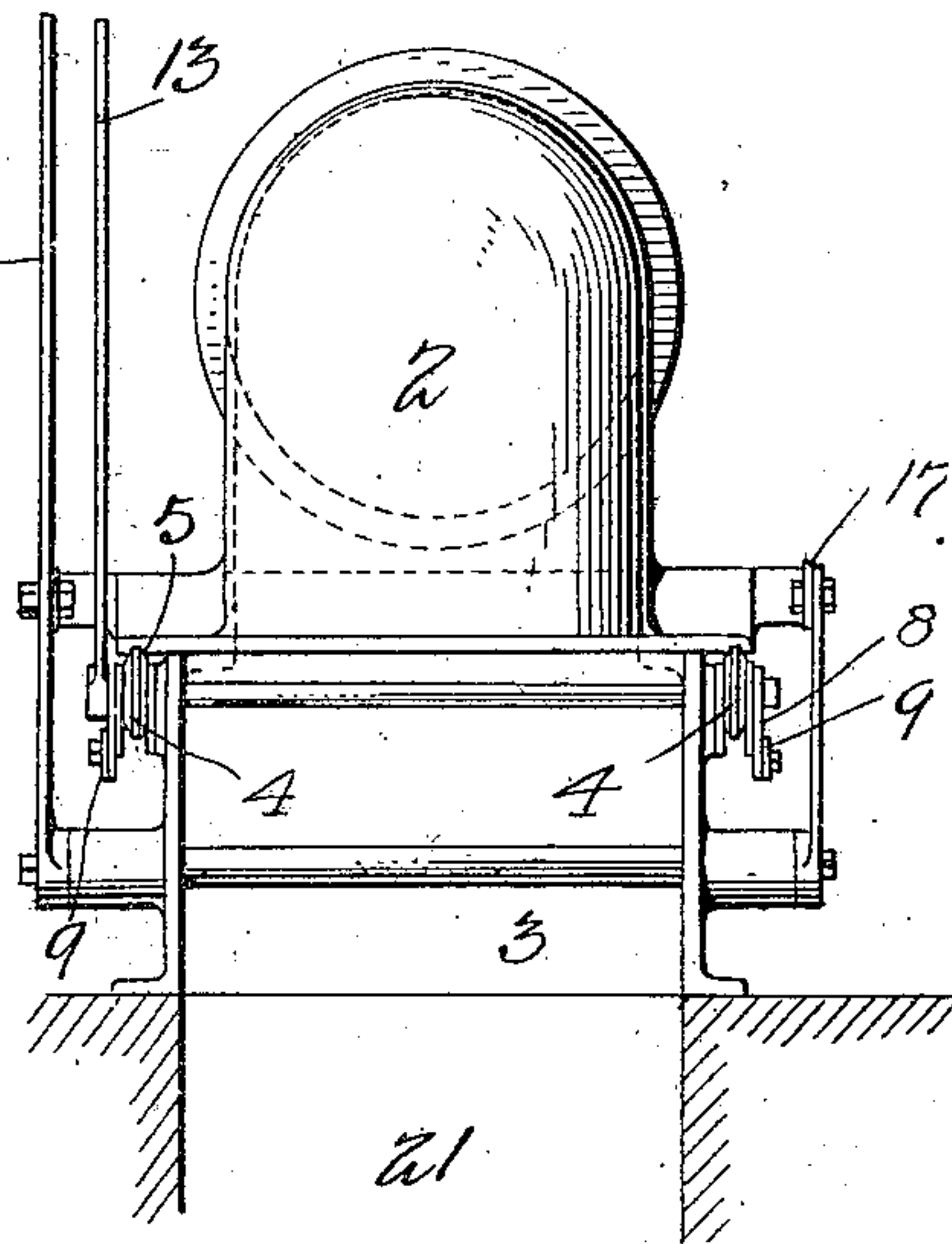


Fig. 3.

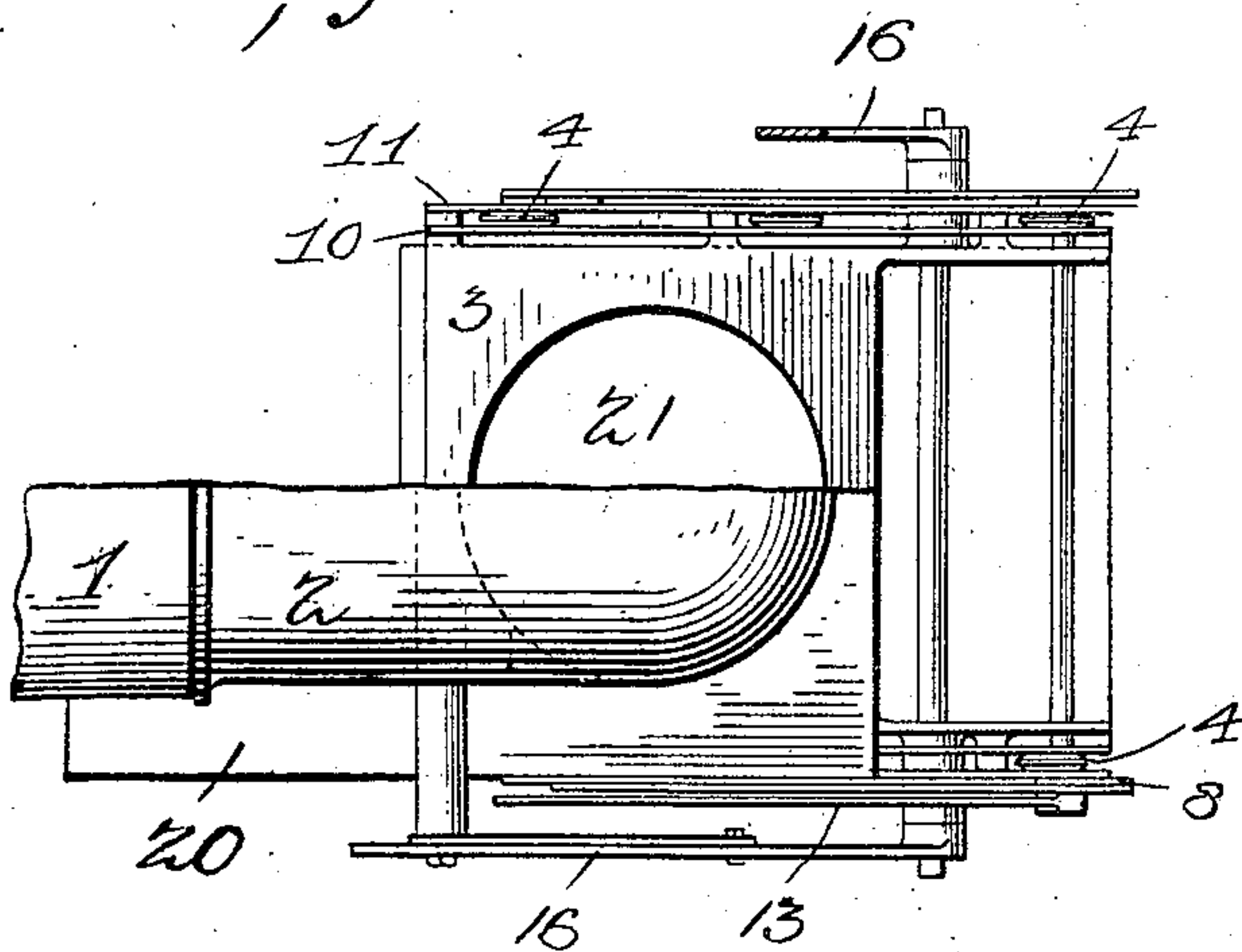


Fig. 4.

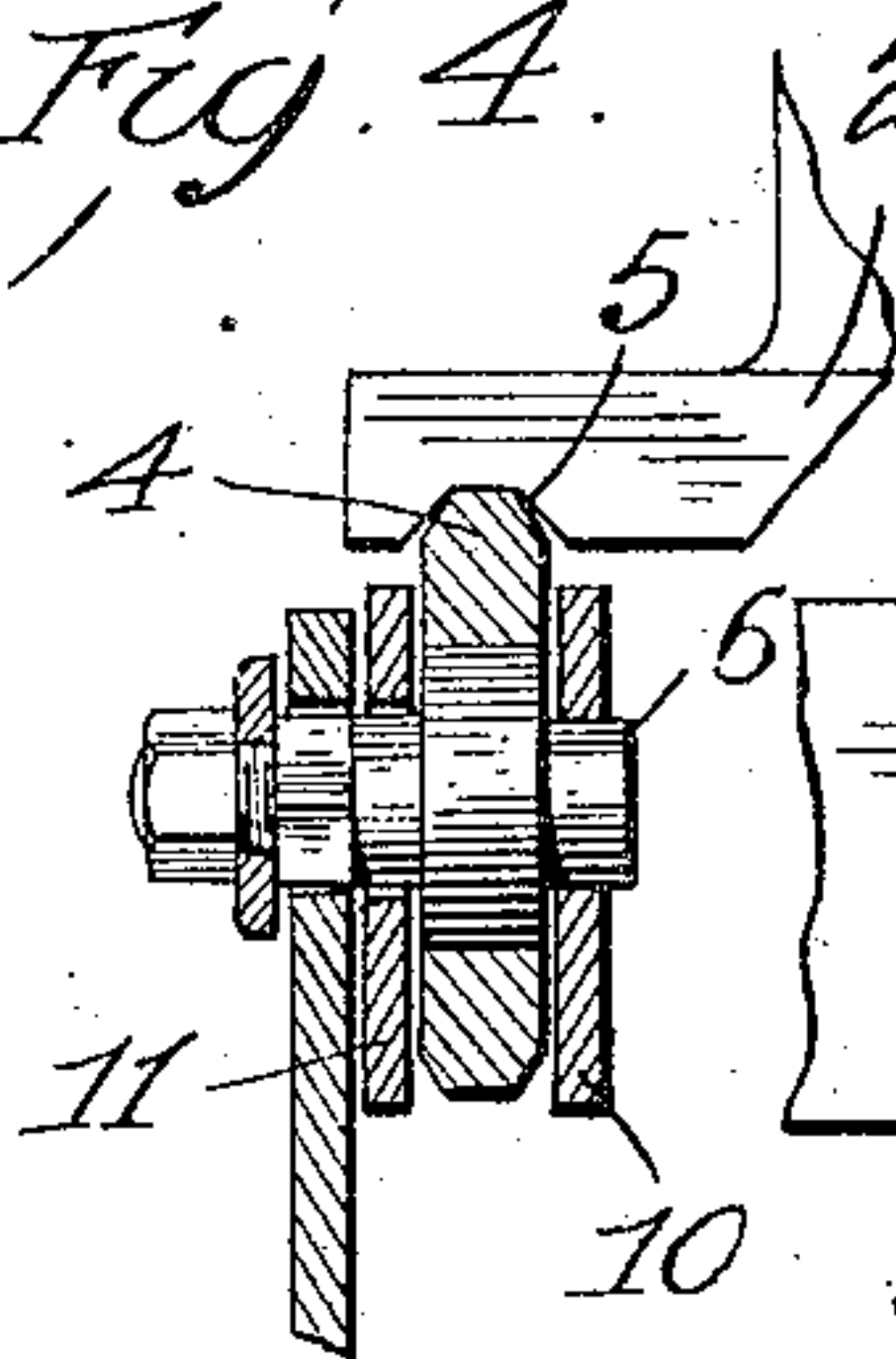
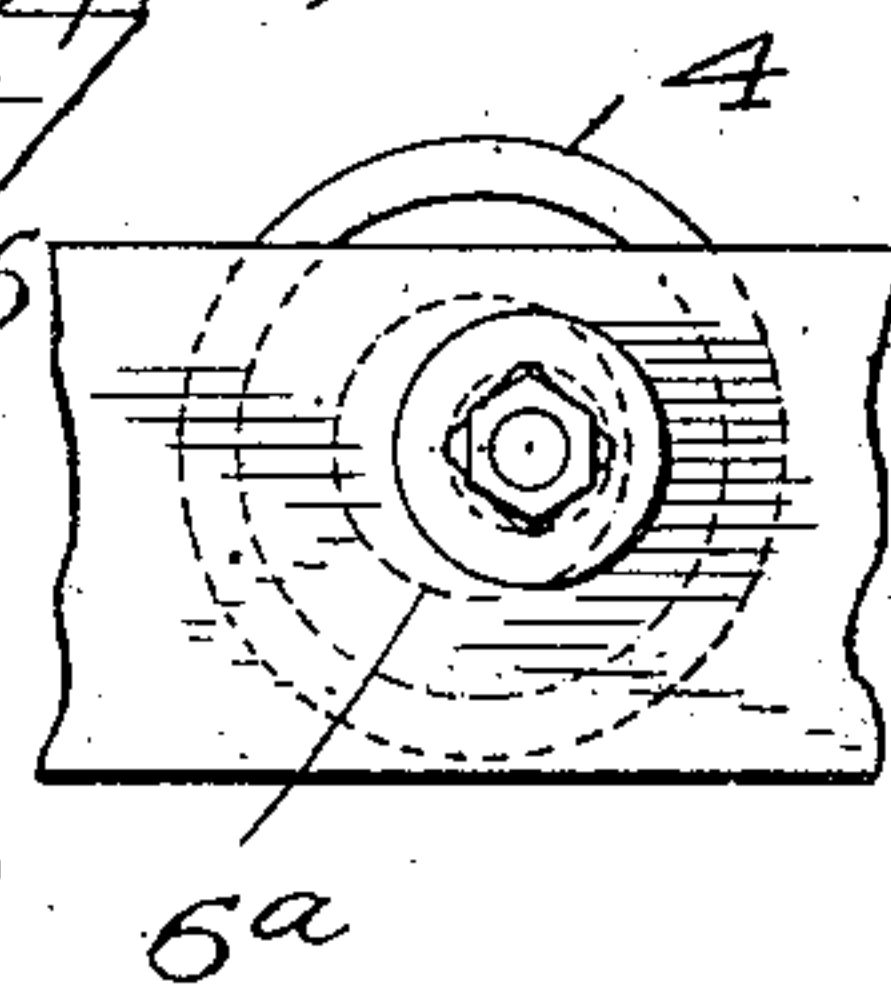


Fig. 5.



Attest:

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# UNITED STATES PATENT OFFICE.

REINHOLD SCHNEIDER, OF SHARON, PENNSYLVANIA.

## VALVE.

No. 844,192.

Specification of Letters Patent.

Patented Feb. 12, 1907.

Application filed August 24, 1906. Serial No. 331,948.

*To all whom it may concern:*

Be it known that I, REINHOLD SCHNEIDER, a citizen of the United States, residing at Sharon, Pennsylvania, have invented certain new and useful Improvements in Valves, of which the following is a specification.

My invention relates to improvements in means for operating chimney and like valves.

The object of the invention is to provide a simple, durable, and efficient construction by which valves of great weight may be easily and quickly moved by a single operator.

The invention includes the novel features hereinafter described, and particularly pointed out in the claims.

An embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a sectional side elevation. Fig. 2 is an end view, partly in section. Fig. 3 is a plan view, and Figs. 4 and 5 are detail views.

Referring by reference characters to these figures, the numeral 1 designates the outlet-flue of a hot-blast stove or oven or like apparatus, and 21 the chimney-flue, between which parts are located the valve-body 2 and the valve-base 3, upon which the valve is mounted and by which the valve-operating mechanism is carried. The valve-body has a base-flange 2<sup>a</sup>, which is mounted to have sliding movement on the rollers 4, the peripheries of which preferably roll or travel in grooves 5 in the under side of the flanges 2<sup>a</sup>. The valve-body 2 is reciprocated by a hand-lever 16, pivoted at its lower end to the base 3 and having a link 17 pivotally connected at one end to the lever and at the other end to the valve-body. Movement of the hand-lever to the left causes the mouth 2<sup>b</sup> of the valve to be pressed tight against the pipe 1 and its open lower end to be in communication through the bases with the flue 21. Movement of the hand-lever 16 in the opposite direction, however, will cause the valve-body to be moved to the right until the cover-plate 20 is over the valve-base. These valve-bodies are often of great weight and difficult to move, and in order to obviate this objection the valve-body is mounted, as above described, upon antifriction-rollers 4. In or-

der, however, to avoid any space or crack between the valve body and base and maintain a tight closure except when the valve is being operated or moved, I provide means by which the rollers may be out of action or contact with the valve-body except when it is desired to move the latter. A convenient way of accomplishing this is to journal the rollers upon the eccentric portions 6<sup>a</sup> of the supporting-shafts 6, which are journaled in the side bars 10 and 11. These shafts carry on their outer ends crank-arms 8, which are connected by a link 9, so that they may be all rocked in unison, one of the links being extended, as shown at 13, to form a convenient operating-handle. Normally the handle will lie in such position that the rollers will be so low as to permit the valve-body to rest tight upon its base and no air can leak through. If it be desired to move the valve, the operator moves the lever 13, rocking all the shafts 6 and causing the eccentric portions to elevate the rollers and lift the valve-body out of contact with the base, after which a single operator can easily move it to its position, whereupon the action of lever 13 is of course reversed. It will be observed that the rollers and supporting parts therefor are located outside the flue, and hence are protected from the dust and gases.

Having thus described my invention, what I claim is—

1. The combination with a reciprocating valve and its seat, of antifriction devices, and means whereby said valve and devices are out of contact with each other when the valve is stationary and in closing position.

2. The combination with a valve-seat and a horizontally-moving valve adapted to rest thereon by gravity, of antifriction-rollers, and means for raising them into contact with the under side of the valve to lift it off its seat.

3. The combination with a horizontal valve-seat and a horizontally-moving valve-body, of a track or guide on one of said elements, a plurality of coacting, antifriction-rollers on the other, eccentric-shafts upon which said rollers are journaled, and means for rocking said shafts in unison.

4. The combination with the chimney-flue

and oven-flue, of a valve-base upon the chimney-flue having a horizontal valve-seat, a valve-body capable of longitudinal movement upon said base to and from said oven-  
5 flue, antifriction-rollers carried outside the valve-base, and means for raising them into contact with the base of the valve-body.

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

REINHOLD SCHNEIDER.

Witnesses:

FRED A. SEWELL,  
KATHERINE H. BUNDEL.