

No. 713,419.

Patented Nov. 11, 1902.

L. S. FLATAU.
CRUDE OIL BURNER.

(Application filed Mar. 19, 1902.)

(No Model.)

2 Sheets—Sheet 1.

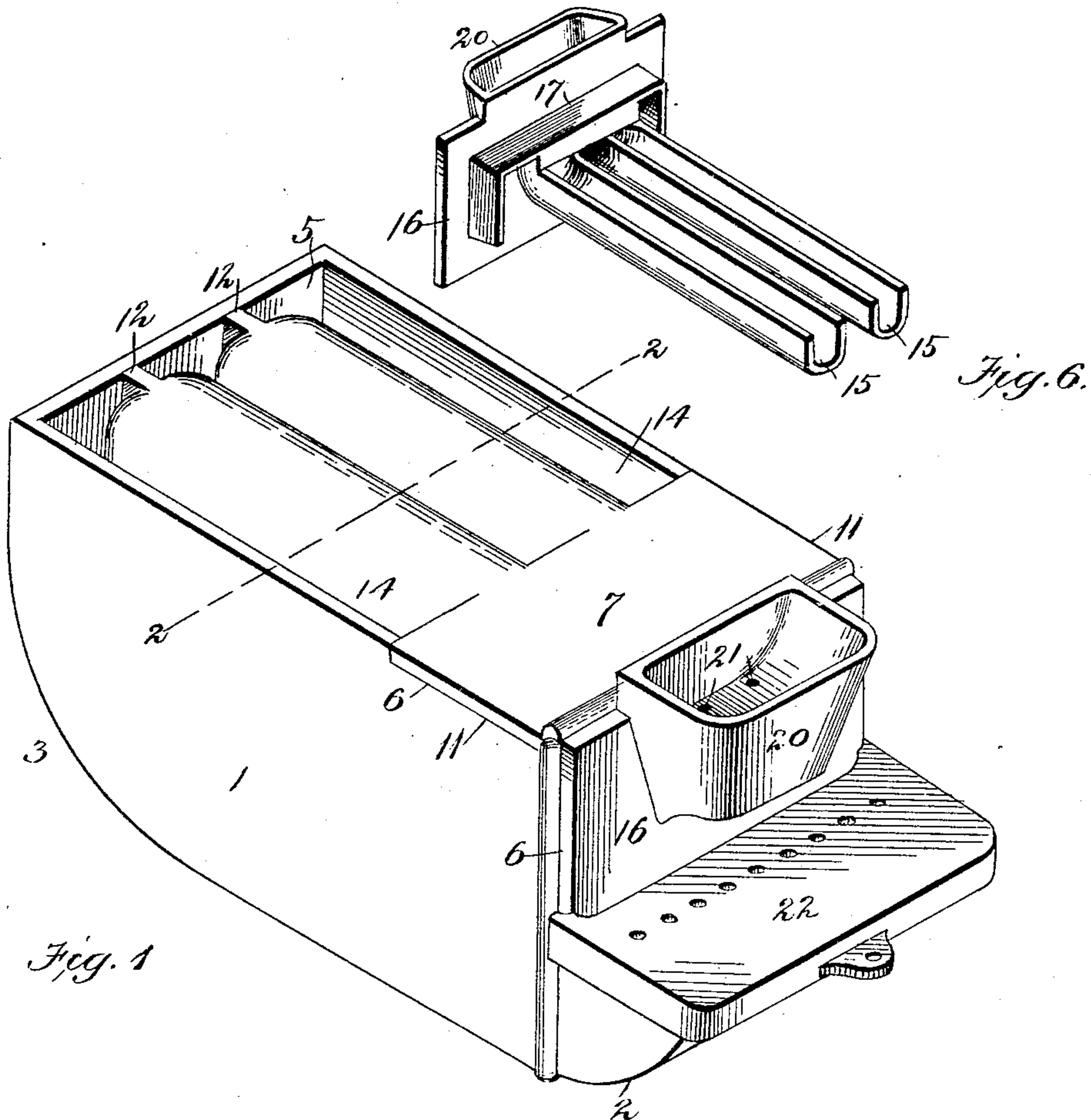
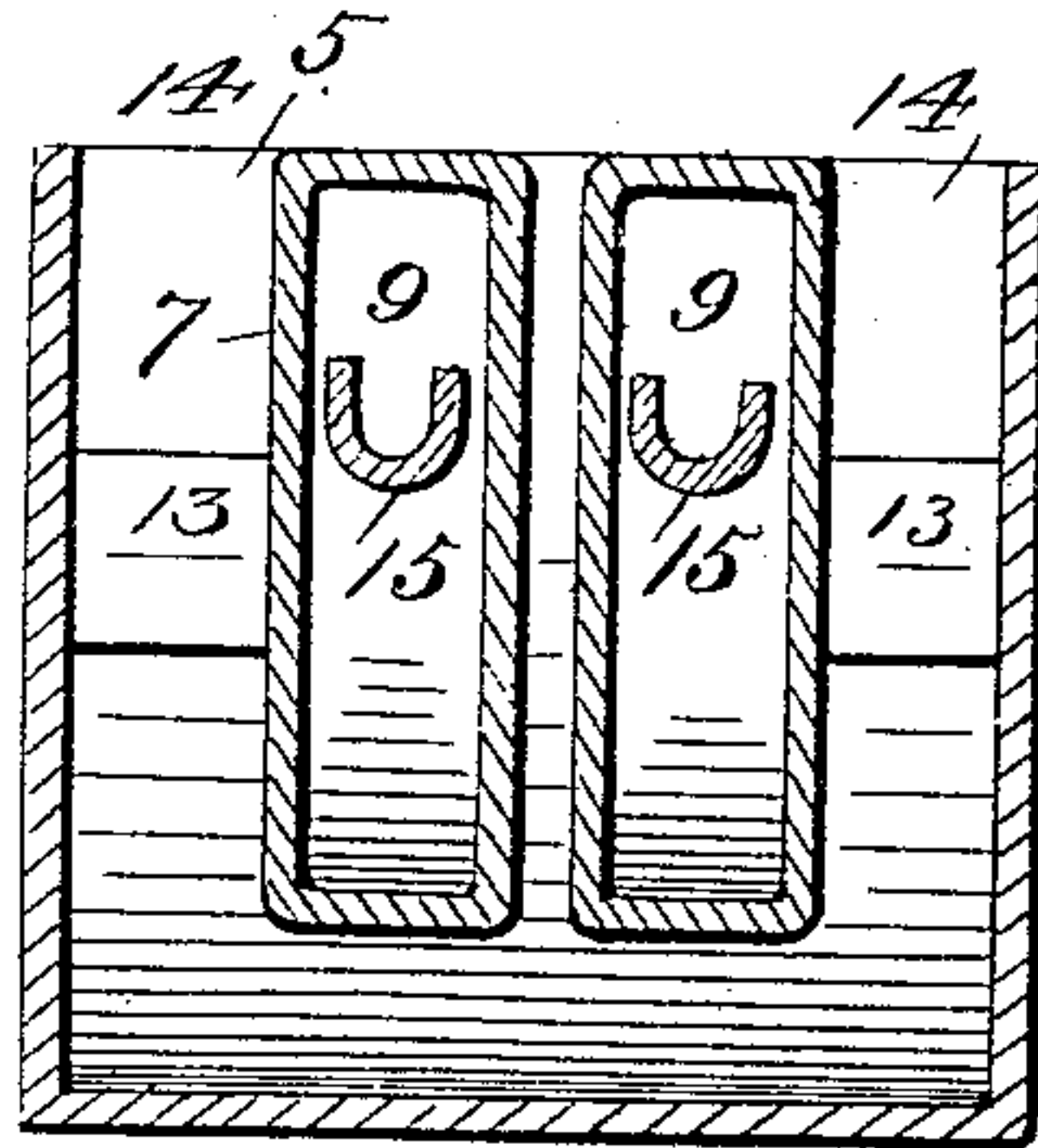
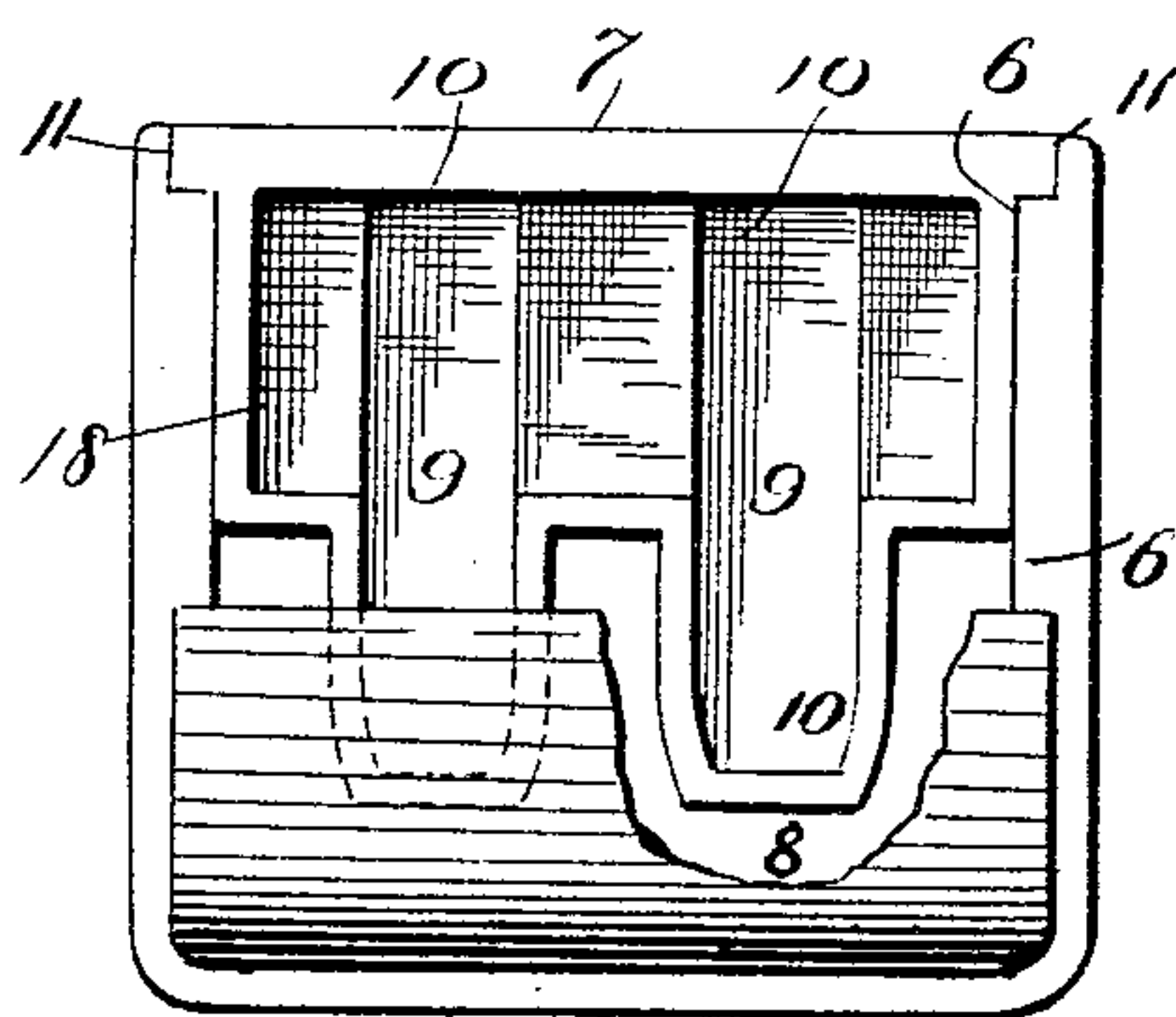


Fig. 1

Fig. 2.

Fig. 5.



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2 Sheets—Sheet 2.

Fig. 3.

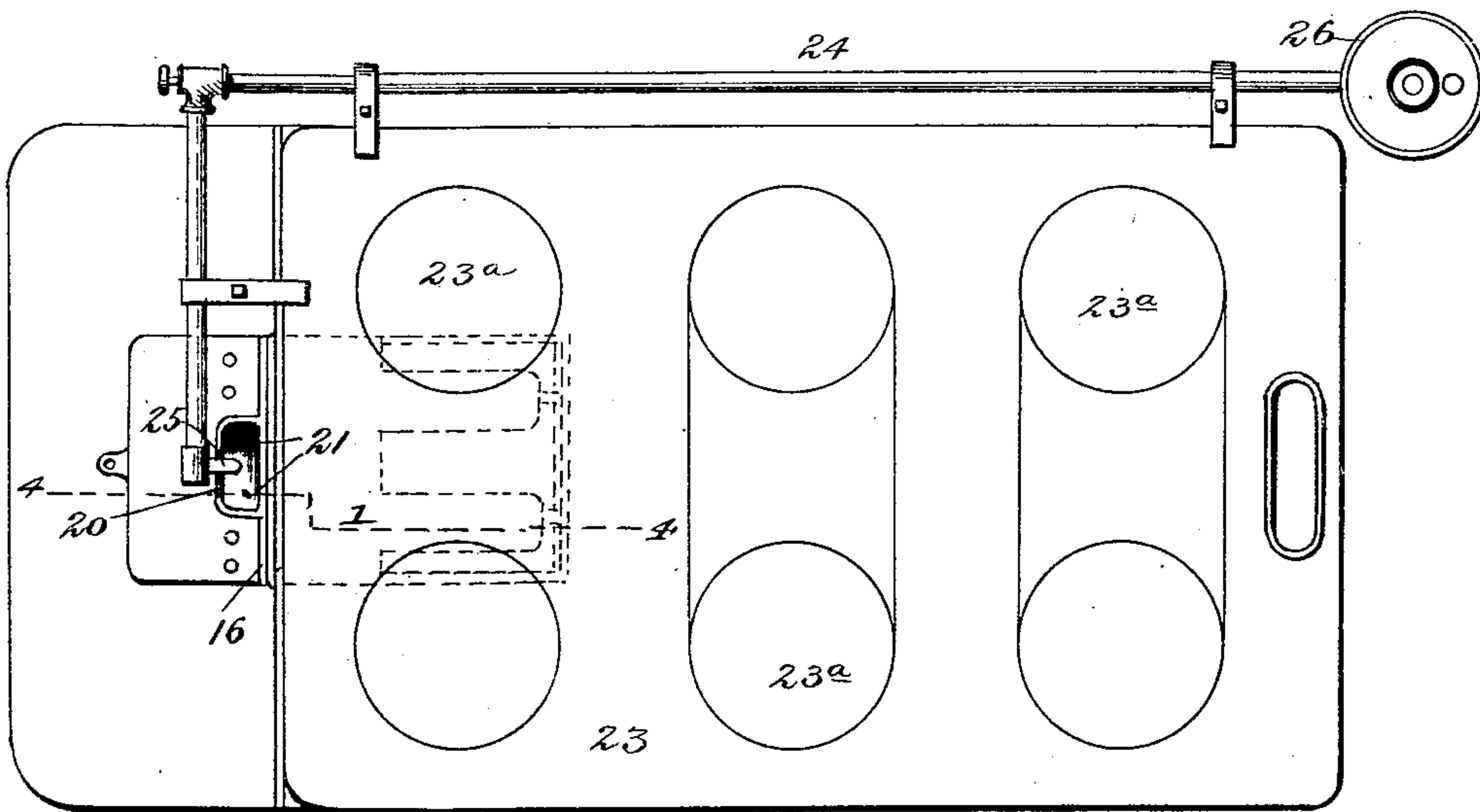
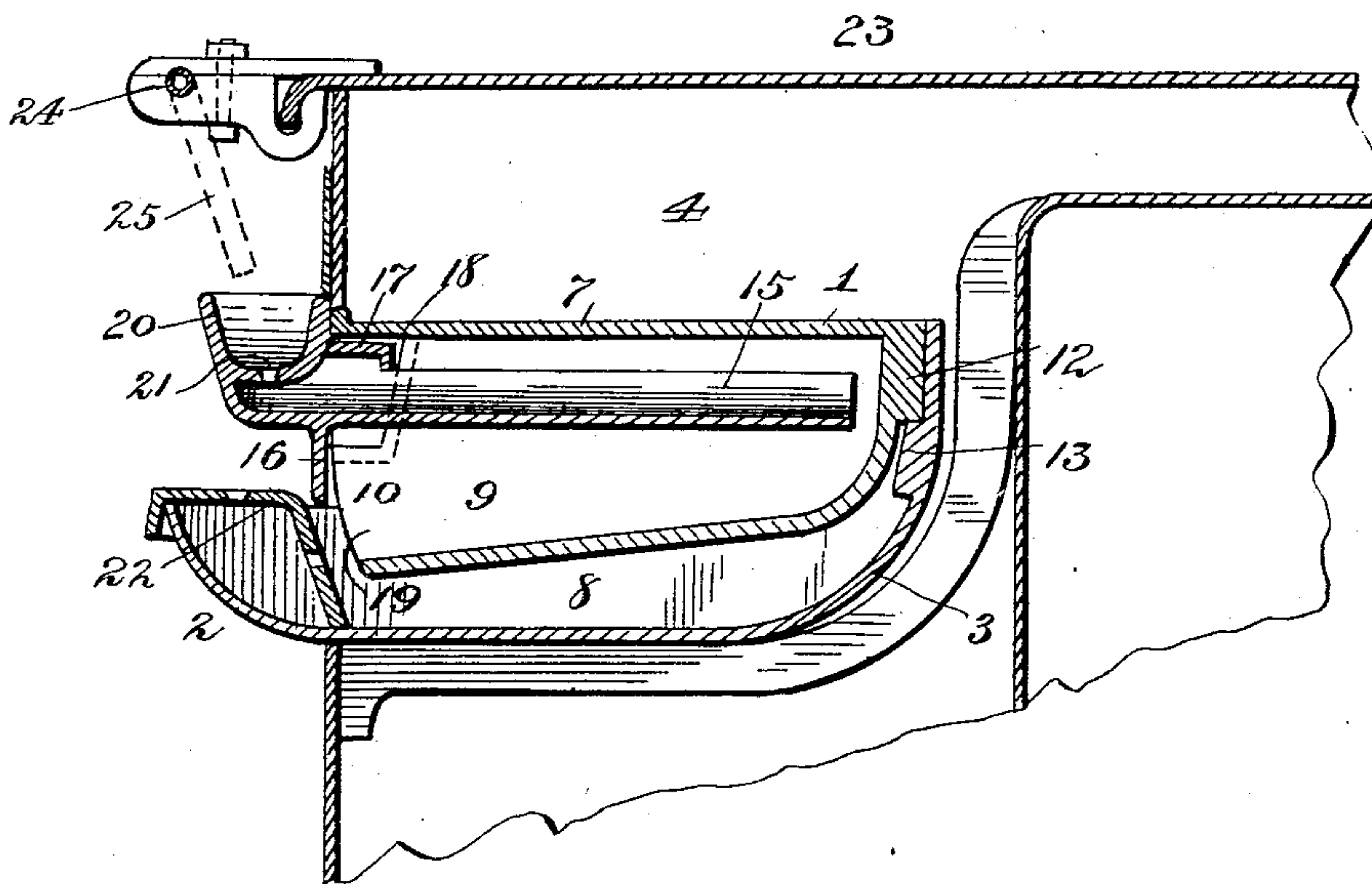


Fig. 4.



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UNITED STATES PATENT OFFICE.

LOUIS SPENCER FLATAU, OF ST. LOUIS, MISSOURI.

CRUDE-OIL BURNER.

SPECIFICATION forming part of Letters Patent No. 713,419, dated November 11, 1902.

Application filed March 19, 1902. Serial No. 98,991. (No model.)

To all whom it may concern:

Be it known that I, LOUIS SPENCER FLATAU, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented new and useful Improvements in Crude-Oil Burners, of which the following is a specification.

My invention relates to crude-oil burners for stoves and furnaces; and the object of the same is to construct a device of this character in which the oil will be vaporized and completely consumed.

The simple and novel construction used by me in carrying out my invention is fully described in this specification, and illustrated in the accompanying drawings, forming a part thereof, in which—

Figure 1 is a perspective of my burner. Fig. 2 is a transverse section of the same. Fig. 3 is a plan view of a stove with one of my burners in place therein. Fig. 4 is a longitudinal section of a stove with my device in place therein on line 4 4, Fig. 3. Fig. 5 is a front elevation with the head 16 removed. Fig. 6 is a perspective view of the head and troughs.

Like numerals of reference designate like parts in the different views of the drawings.

The numeral 1 designates a casing rounded off at 2 and 3 on the front and back, respectively, to adapt it to fit into the furnace 4 of an ordinary stove. The casing 1 is open at the top at 5 and is cut away in the front at 6 to accommodate a converter 7; but the bottom is left inclosed on the four sides to form a fire-pan 8, which is the seat of combustion.

The converter comprises two parallel chambers 9 open at their forward ends at 10. I may use more than two or even one. These chambers 9 are rigidly connected and are provided with flanges 11, which engage the sides of the casing 1, and lugs 12, which engage a shelf 13 on the rear end of the casing. Spaces 14 intervene between the sides of the casing and the chambers 9.

Removably mounted in the converter-chambers 9 are two open troughs 15, open at their inner ends and connected at their forward ends to a head 16, which bears a flange

17, which snugly fits recesses 18 in the ends of the chambers, and thereby forms a cover for the open front of the chambers, but leaves a space 19 at the bottom through which oil and gas can escape from the chambers 9.

Formed integral with the head 16 is a receiving-pan 20, which is connected by passages 21 to the troughs 15. A perforated cover 22 closes the front of the casing, but permits the entrance of air.

My device is designed to be placed transversely the fire-box or furnace 4 of a stove 23, having holes therein provided with covers 23^a. A pipe 24, provided with a tip 25, conducts oil from a tank 26 to the receiving-pan 20, into which it drips. From the pan 20 the oil passes via the passage 21 into the troughs 15, from the inner ends of which it drips into the chambers 9 and runs forward along the inclined bottom thereof out of the opening 19 and drips into the fire-pan 8. The oil in the pan 8 is then ignited by means of a piece of paper, and the flames will envelop the converter 7 and heat it, thereby vaporizing the oil in the chambers 9 and greatly intensify the heat of combustion and rendering it more complete.

I do not wish to be limited as to the details of construction, as these may be modified in many particulars without departing from the spirit of my invention.

Having thus described my invention, what I claim as new, and wish to secure by Letters Patent, is—

1. In an oil-burner, the combination with a casing open at the top and constructed to form a fire-pan, a hollow converter mounted in said casing above said pan with intervening spaces, a trough inclosed in said converter, and an oil-receiving pan connected to said trough, substantially as described.

2. In an oil-burner, the combination with a fire-pan, of a converter located above said fire-pan and comprising a chamber open at one end, a trough mounted in said chamber with an intervening space, and means for introducing oil into said trough, substantially as described.

3. In an oil-burner, the combination with

a casing open at the top and constructed to
serve as a fire-pan, a converter comprising a
series of chambers, open troughs loosely fit-
ting said chambers, and means for introduc-
5 ing oil into said troughs, substantially as de-
scribed.

In testimony whereof I have hereunto set

my hand in presence of two subscribing wit-
nesses.

LOUIS SPENCER FLATAU.

Witnesses:

C. E. LEITH,
H. R. SMITH.