(No Model.)

E. H. STRICKLER.

SAD IRON.

No. 587,407. Patented Aug. 3, 1897.

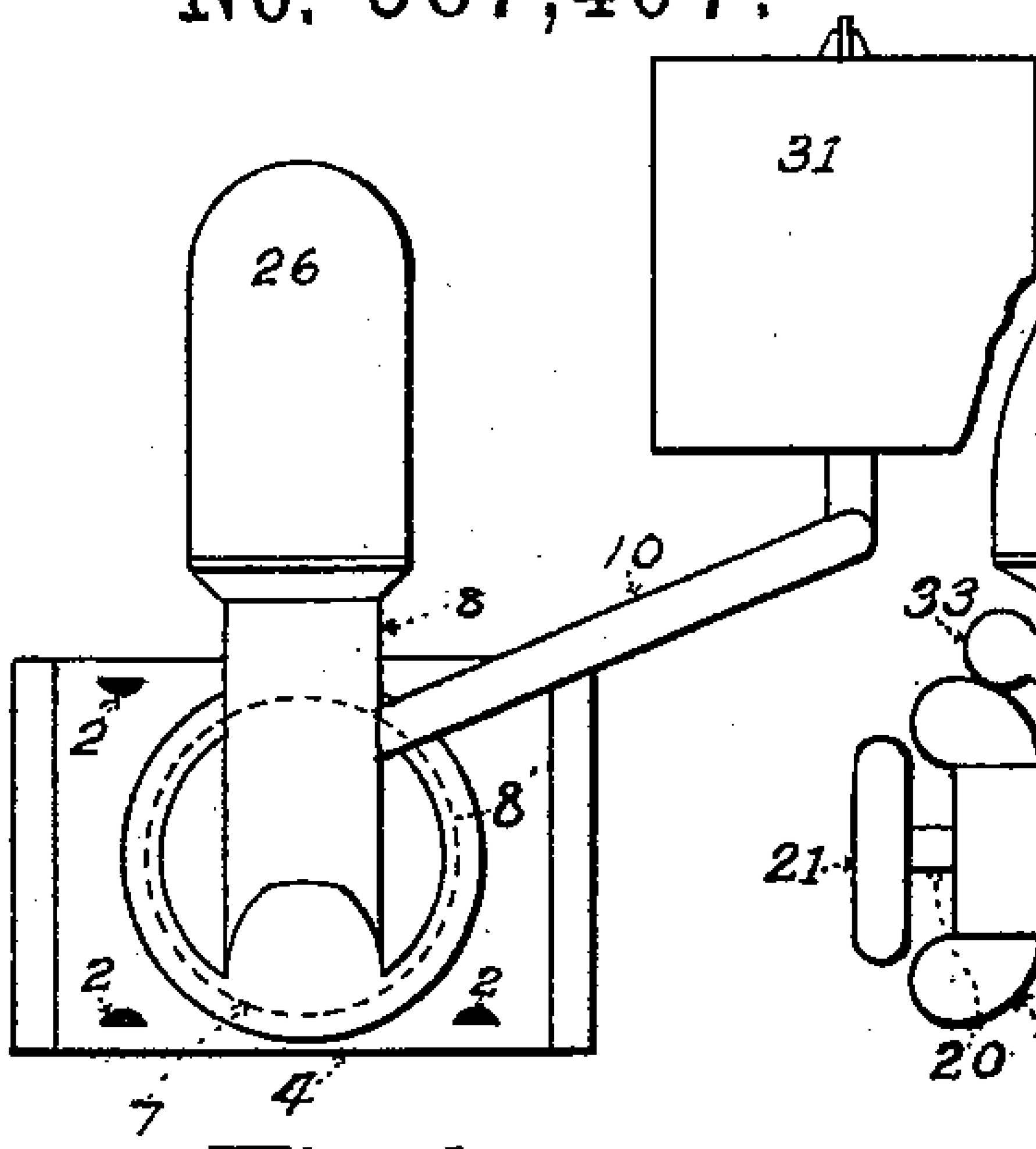

Fig. 4

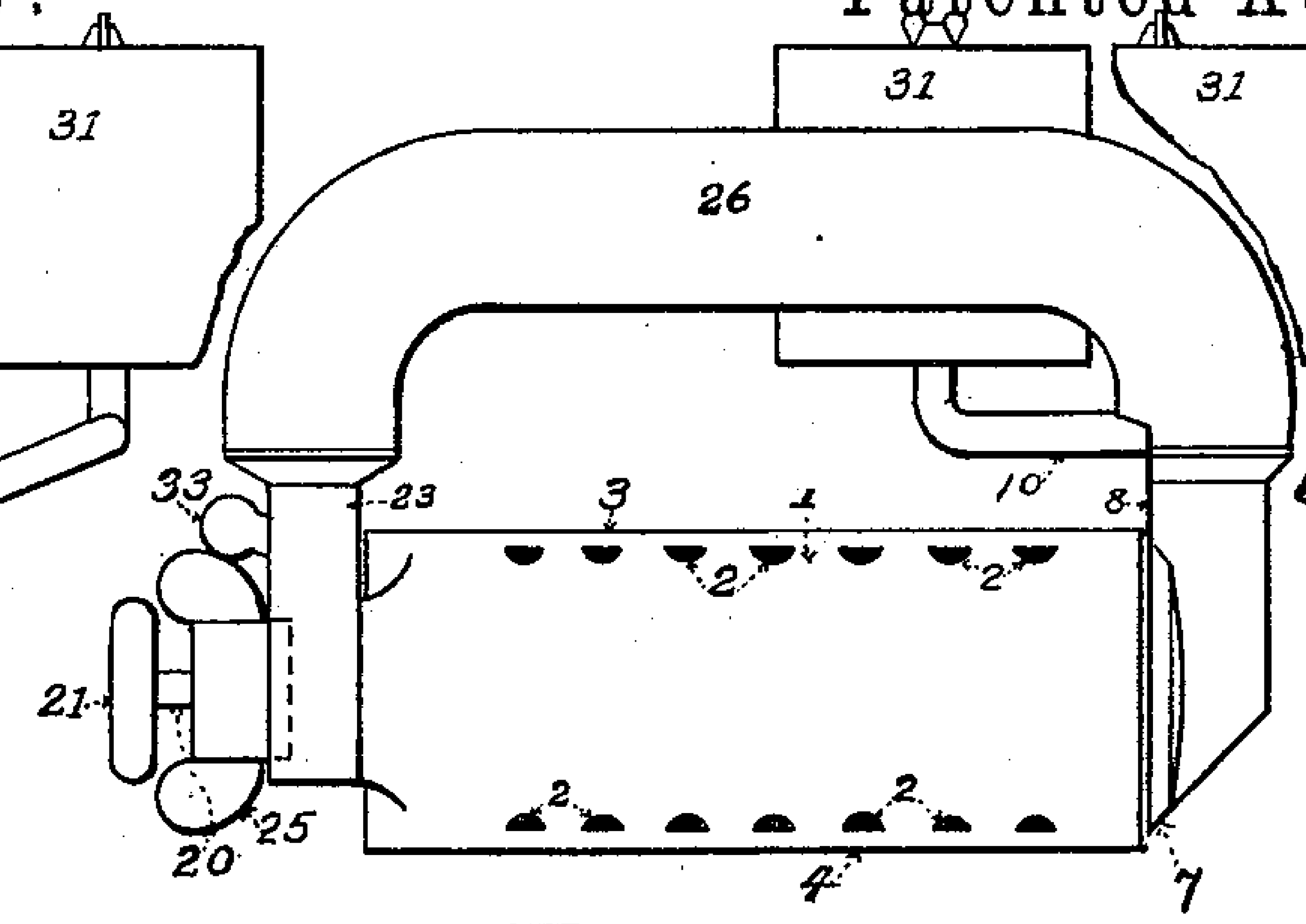

Fig. 1

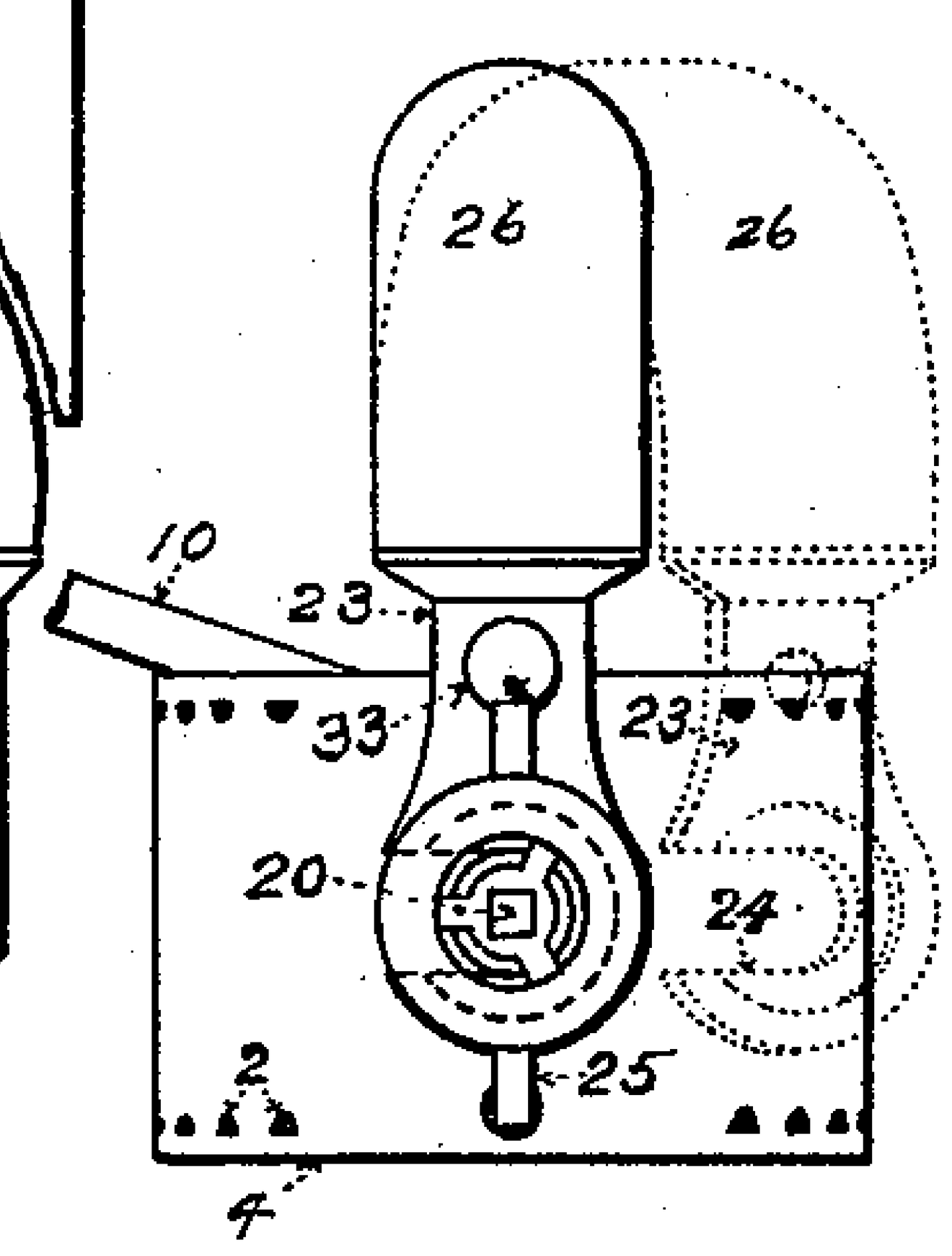

Fig. 5

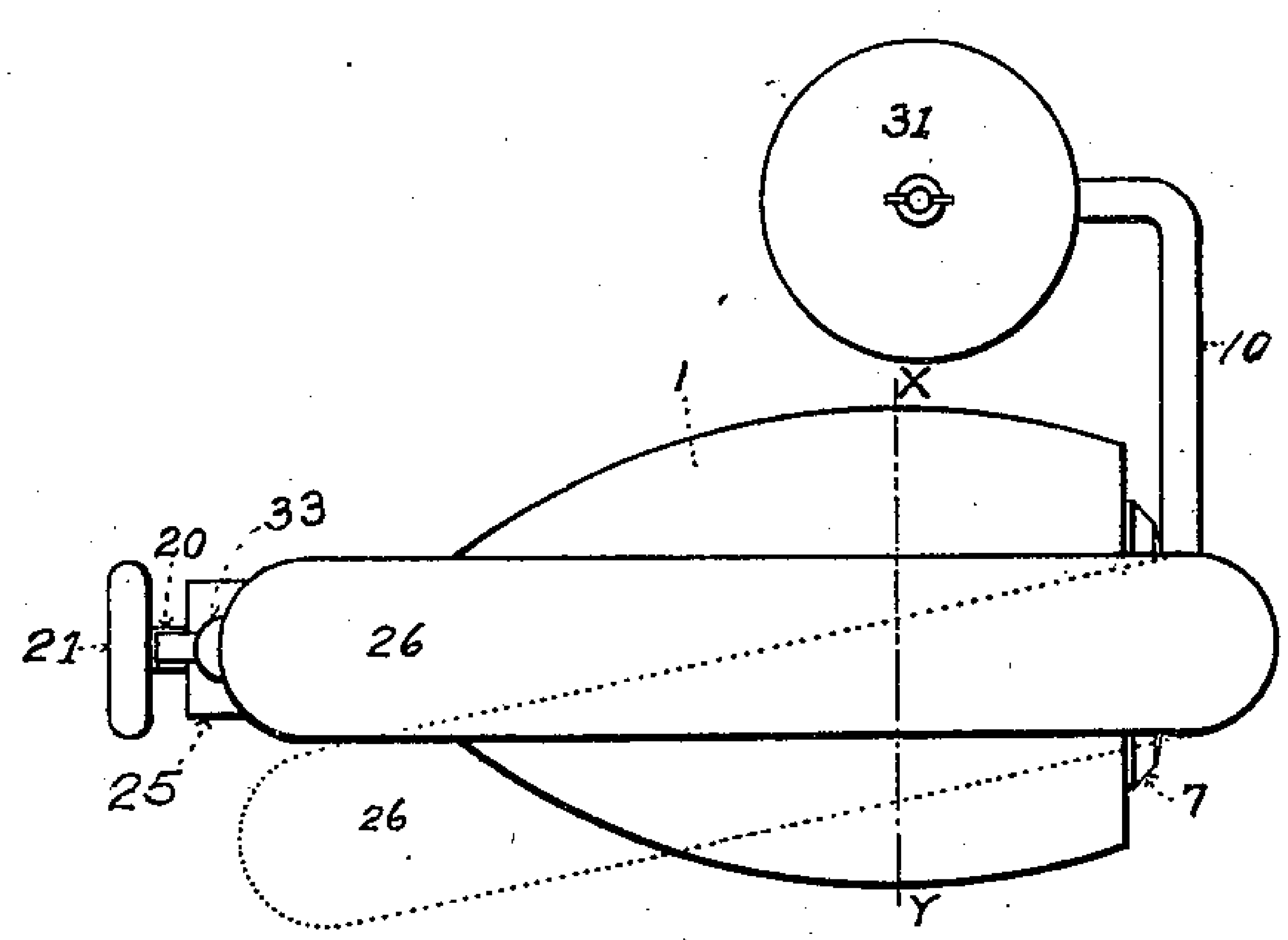

Fig. 2

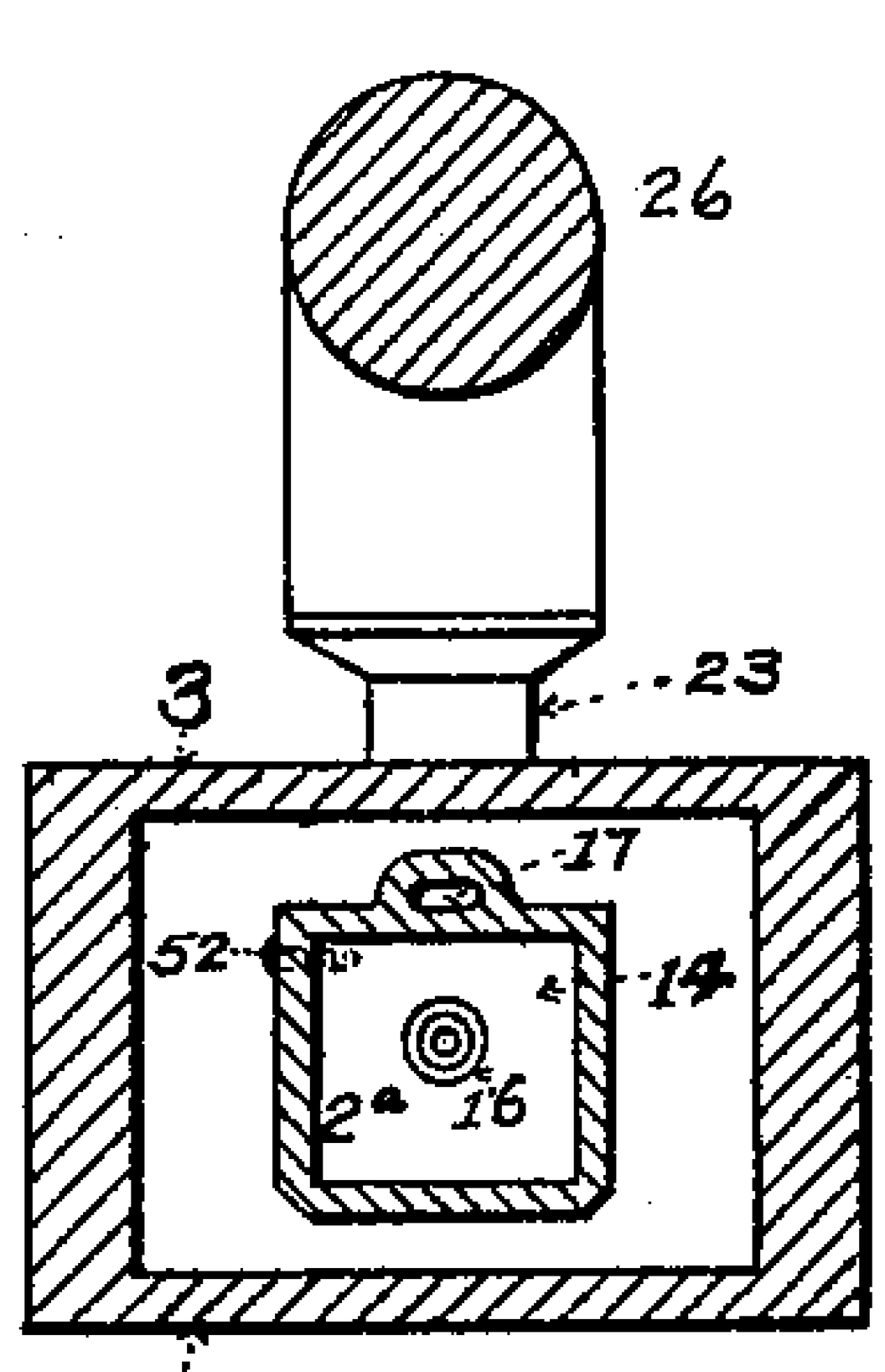

Fig. 6

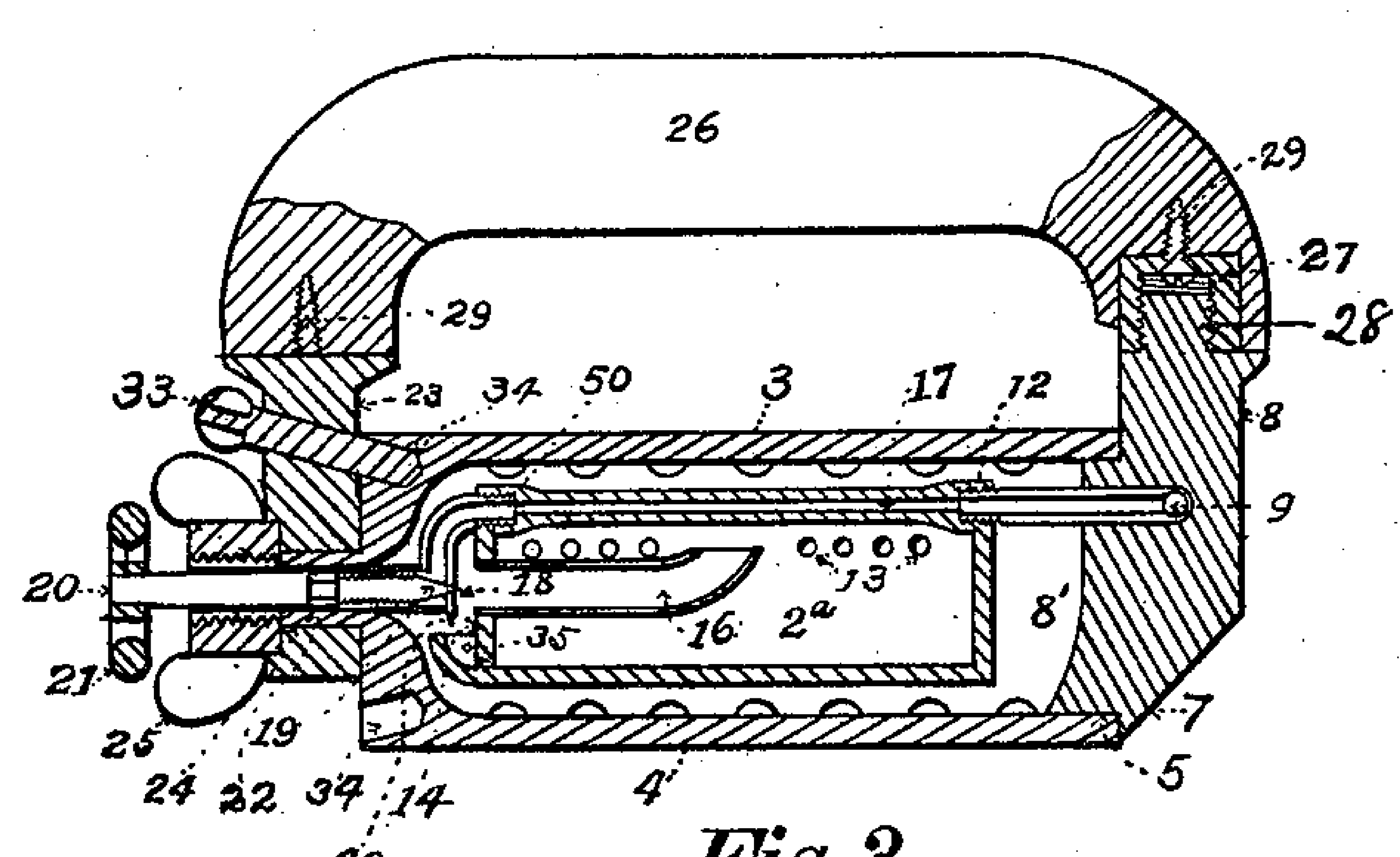

Fig. 3

WITNESSES
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EBER H. STRICKLER, OF SIOUX CITY, IOWA.

SAD-IRON.

SPECIFICATION forming part of Letters Patent No. 587,407, dated August 3, 1897.

Application filed May 18, 1896. Serial No. 592,038. (No model.)

To all whom it may concern:

Be it known that I, EBER H. STRICKLER, a citizen of the United States, residing at Sioux City, in the county of Woodbury and State of Iowa, have invented a new and useful Sad-Iron, of which the following is a specification.

My invention relates to a reversible self-heating sad-iron, and has for its object to provide simple and improved means for connecting the handle to the body of the iron, for mounting and arranging the burner, and for supplying fuel to the burner and controlling the same.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claim.

In the accompanying drawings of my device, Figure 1 is a side view, the parts being in operative position. Fig. 2 is a top view showing in dotted lines the position of the handle when partially deflected to allow the removal of the burner from the cavity of the body portion. Fig. 3 is a longitudinal central section of the iron. Fig. 4 is an end view. Fig. 5 is a front view showing in dotted lines the handle partially deflected. Fig. 6 is a transverse section on line $x\ y$ of Fig. 2.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates the hollow body of the sad-iron, provided in its side walls, approximately in the planes of the floors of the cavity, with ventilating or draft openings 2, said iron having opposite similar polishing-surfaces 3 and 4.

In the rear end of the iron and communicating with its cavity is a circular opening 5, sufficiently large to receive, and hence of greater cross-sectional area than, the burner 2^a, whereby the burner may be introduced and removed therethrough, and this opening is normally closed by means of a flanged cap 7, secured to and preferably formed integral with rear handle-bearer 8, as clearly shown in Fig. 4.

Any suitable means for supplying fuel to the burner may be employed, that shown in the drawings consisting of a supply-pipe 10, in communication with a tank or reservoir 31. Supply-tube 10 leads from the tank in the manner shown in Fig. 4, through handle-bearer 8, into the cavity of the iron by means of conductor 9. The extremity of the conductor 9 is threaded in a boss 12 in the rear end of the burner 2^a, and the latter is provided with perforations 13 to allow the escape of the flame and other products of combustion.

14 designates a removable head adapted to be loosely inserted within and to come in contact with the inner walls of the burner, and is secured firmly thereto by a set-screw 52, (shown in Fig. 6,) passing through one of the side walls of the burner, near the top of the same, into a screw-hole in side wall of the removable head adapted to receive it. Carried by this removable head and formed, preferably, solid with it is a burner-tube 16, which terminates in an upward extremity.

17 designates the vaporizing-conduit, preferably cast or formed as a channel in the burner, passing longitudinally through the upper wall thereof and connecting with conductor 9 by a boss at 12.

Communication between the vaporizing-conduit and the burner-tube is established through a valve-seat 18, engaging the vaporizing-conduit in a boss, as indicated at 50. The valve-seat is controlled by a needle-valve 19, with a stem 20 extending through a hollow trunnion 22 (which forms the end of the iron) and terminating in a thumb or operating wheel 21, which is fitted upon stem 20 by means of a square end, so as to be easily removed.

Stem 20 extends concentrically through trunnion 22, and the front handle-bearer is provided with a bearing 24, partially encircling the trunnion and held in place by a thumb-nut 25, threaded upon the outer end of the trunnion. The bearing 24 is preferably open-sided to allow of displacing the bearer 23 laterally upon a pivot between the rear handle-bearer 8 and the rear extremity of the handle 26. In the construction illustrated this pivoted connection consists of a hollow nut 27, held into the extremity of the handle by means of a screw 29 and threaded upon a

stud 28, forming an upward extension of the bearer 8. Handle 26 is pivoted to rear handle-bearer 8 upon stud 28 as a pivot.

While valve 19 is opened by controlling wheel 21, fuel passes through the supply-pipe 10 and conductor 9 to the vaporizing-passage 17, where after the device has been in operation for a sufficient length of time to heat the burner the fuel is vaporized and supplied to the burner-tube in a gaseous state. The discharge of fuel in the burner-tube is controlled by needle-valve 19.

In connection with the above-described construction I employ a drip-cup 35, arranged under a drip projection 42, extending downward from the valve-seat, whereby unvaporized fuel passes into the cup when the process of heating the iron begins and is ignited and consumed.

When the lower or operating polishing-surface has become too cool for use, the iron is adapted to be reversed to bring the opposite polishing-surface into operative position, accidental disarrangement of the iron during use being prevented and security of position being given by locking-pin 33, extending through front handle-bearer and engaging sockets 34 in the end of the iron. When it is desired to reverse the iron, locking-pin 33, which is preferably constructed with a head of wood or other poor heat-conductor, is withdrawn, and by turning with the hand or shaking over the board or table the iron is made to turn in front upon trunnion 22 as an axis and in the rear upon an inward-extending journal 8′ on inside of handle-bearer 8.

When it is desired to dismount the burner, the thumb-nut 25 is loosened to release the front handle-bearer, the controller-wheel 21 is quickly removed, the handle is deflected to a position similar to that shown in Figs. 2 and 5, though at a greater angle from the iron than therein indicated, upon the pivoted joint at the rear end of the handle as a center, and the burner and connections are drawn axially through the rear opening 5 in the iron.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having described my invention, what I claim is—

In a reversible, self-heating sad-iron, the iron-body, 1, with draft-openings, 2, and opposite polishing-surfaces, 3 and 4, provided with a cavity extending to one end of the iron, and at one end with a trunnion, 22, and at the other end with an opening, 5, communicating with its cavity, having a handle, 26, provided at one end with a pivoted bearer 8, with which the handle is permanently connected, said bearer being provided with a cap 7, to close the opening 5 in the end of the iron, said iron being further provided at the other end with a handle-bearer 23, having an open-sided bearing 24, to receive the trunnion 22 of the iron, thumb-nut 25, for securing the bearer 23 to the trunnion, locking-pin 33, to secure either polishing-surface in operative position by engaging sockets 34, all in combination with burner 2^a, arranged within the cavity of the iron, carried by the handle-bearer 8, adapted to be introduced through the opening 5, into the cavity of the iron, having an interior burner-tube 16, a longitudinally-disposed vaporizing-conduit, 17, communicating by means of a valve-seat, 18, with the burner-tube, a needle-valve, 19, having an external operating device, arranged to control the flow of fuel from the vaporizing-conduit to the burner-tube, a supply-tank, 31, and a supply-pipe, 10, in communication with the vaporizing-conduit, by means of conductor 9, leading through handle-bearer 8, and a drip-cup 35, arranged beneath a drip projection 42, all substantially as described and for the purpose specified.

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

EBER H. STRICKLER.

Witnesses:
O. MIDDLEKAUFF,
J. A. BLONDEL.