

D. E. Paris' New Top Reservoir.

PATENTED APR 18

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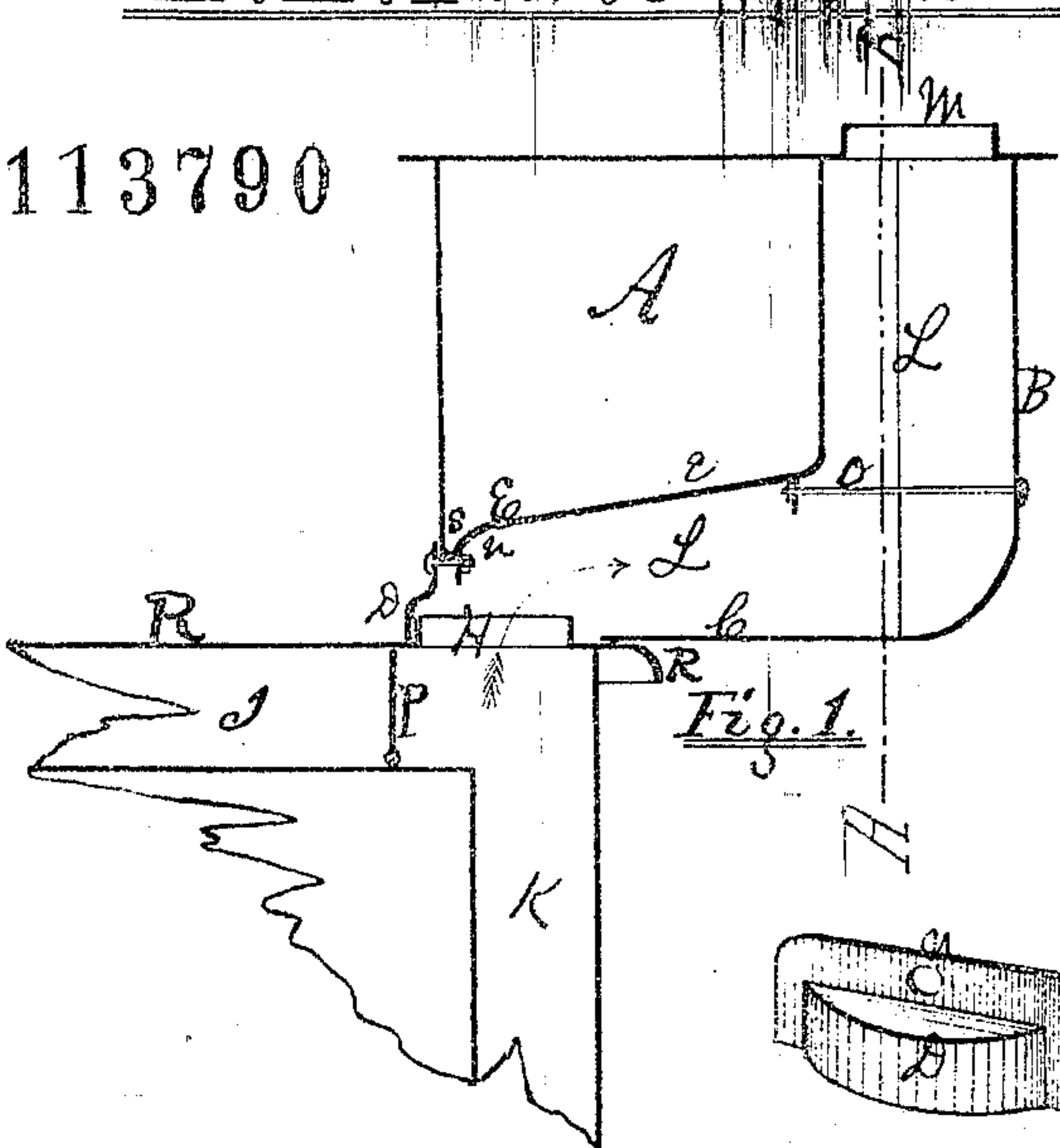


Fig. 1.

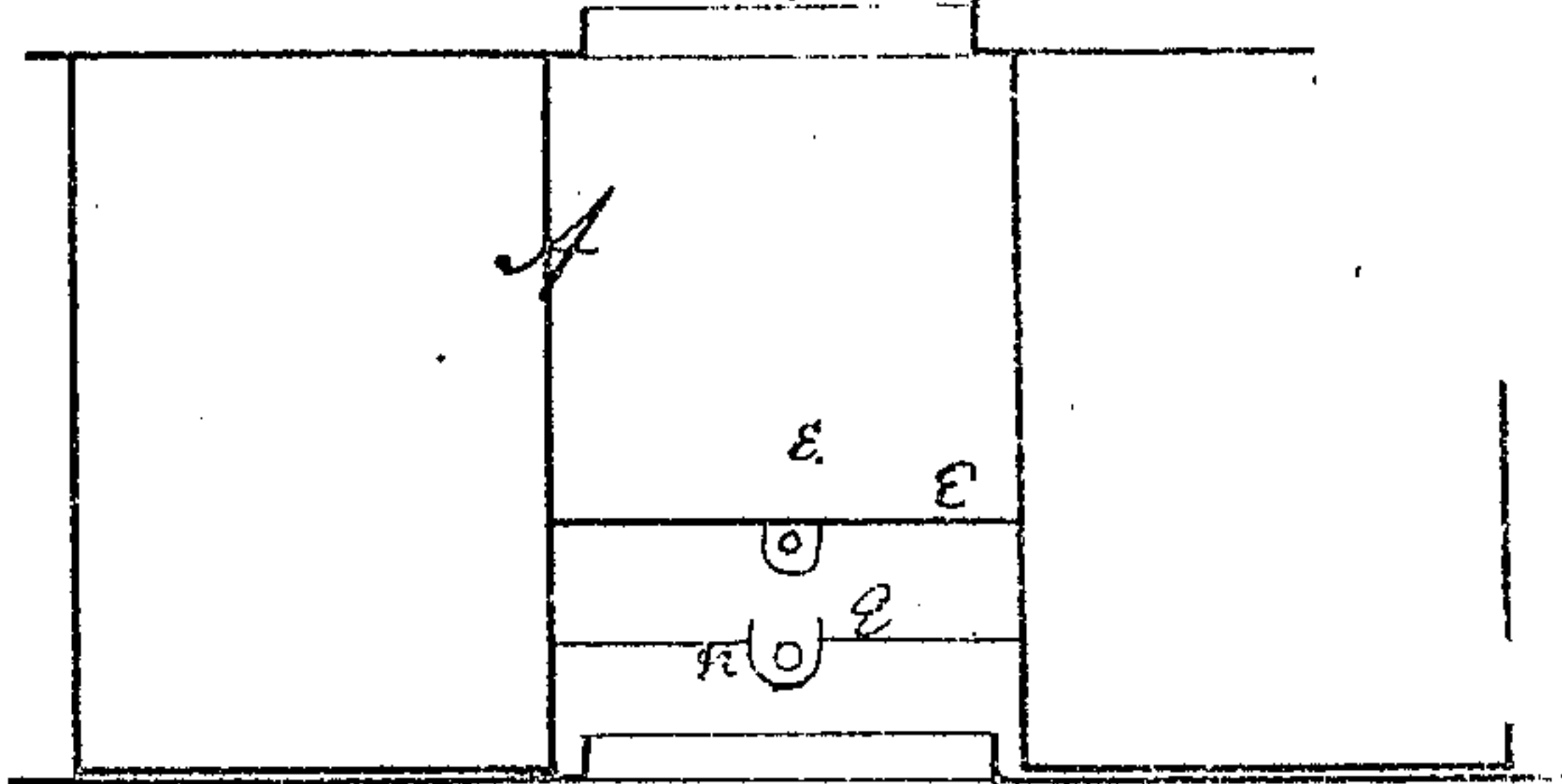


Fig. 2. A — B

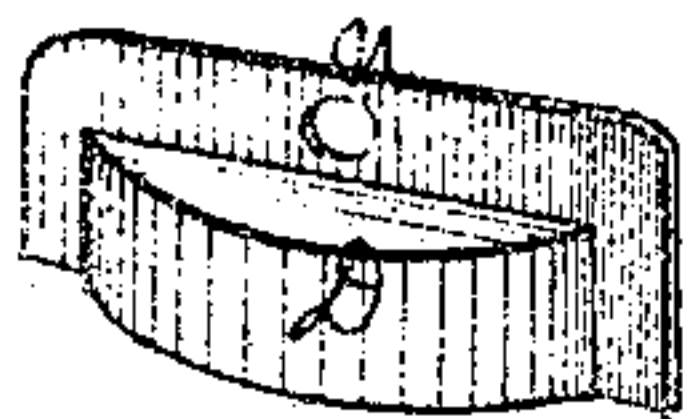


Fig. 4.

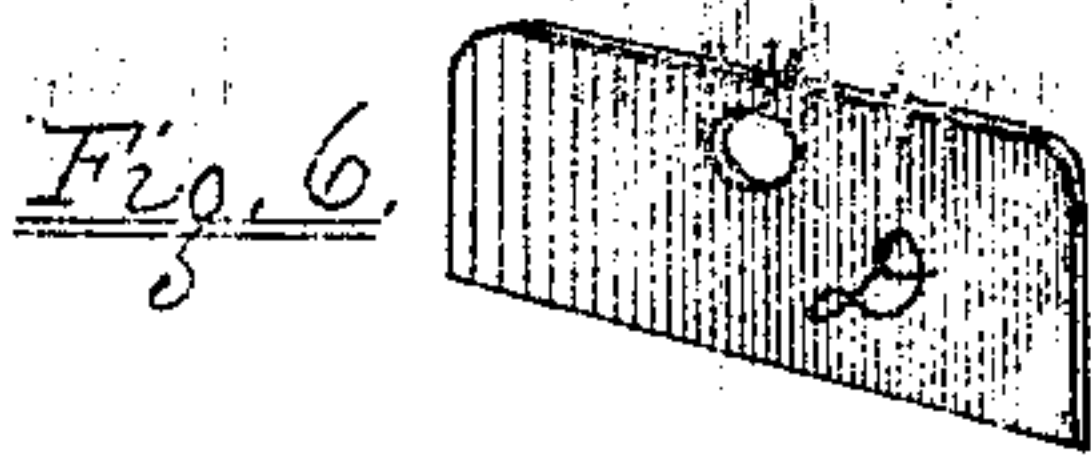


Fig. 6.

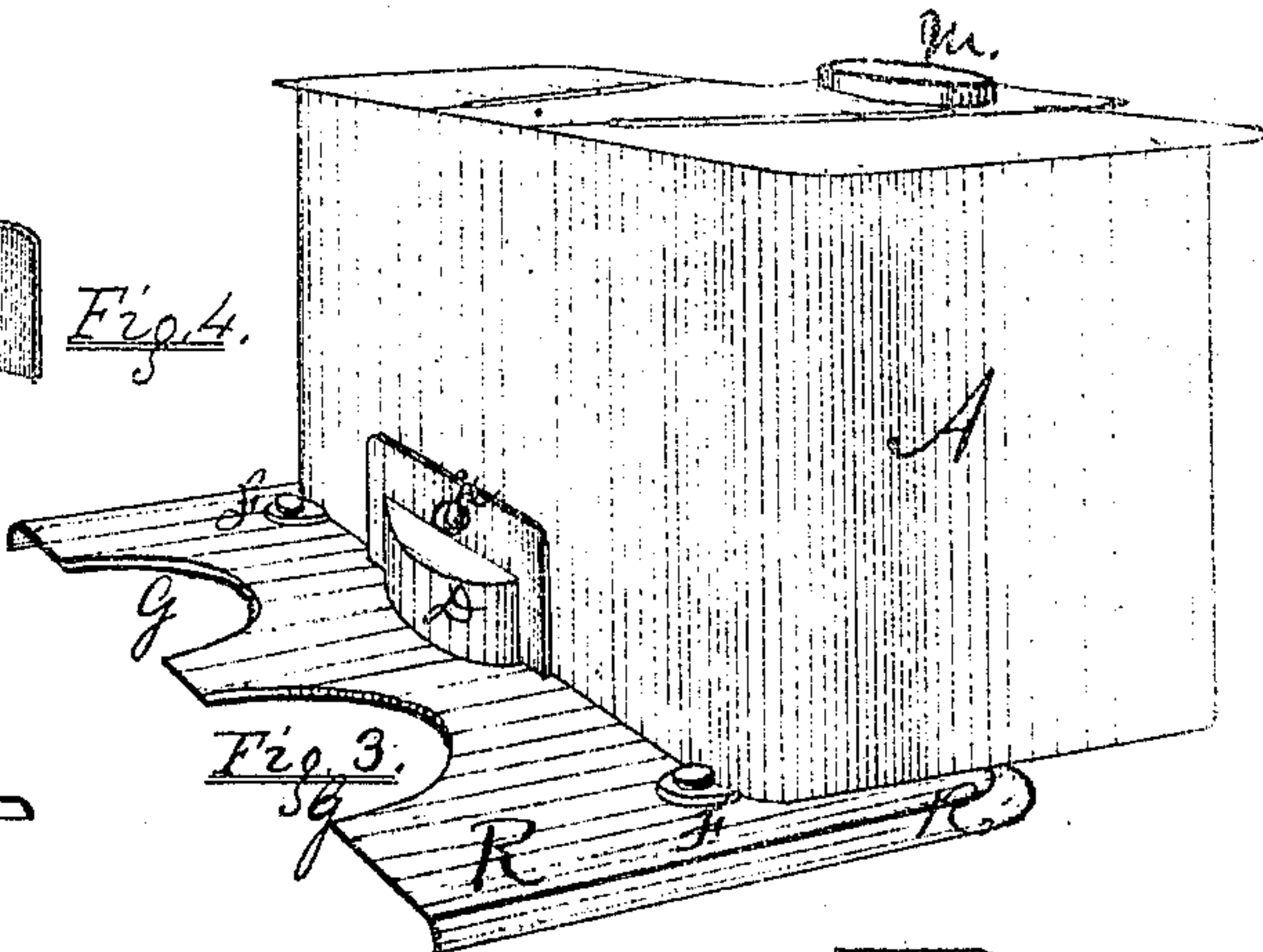


Fig. 3.

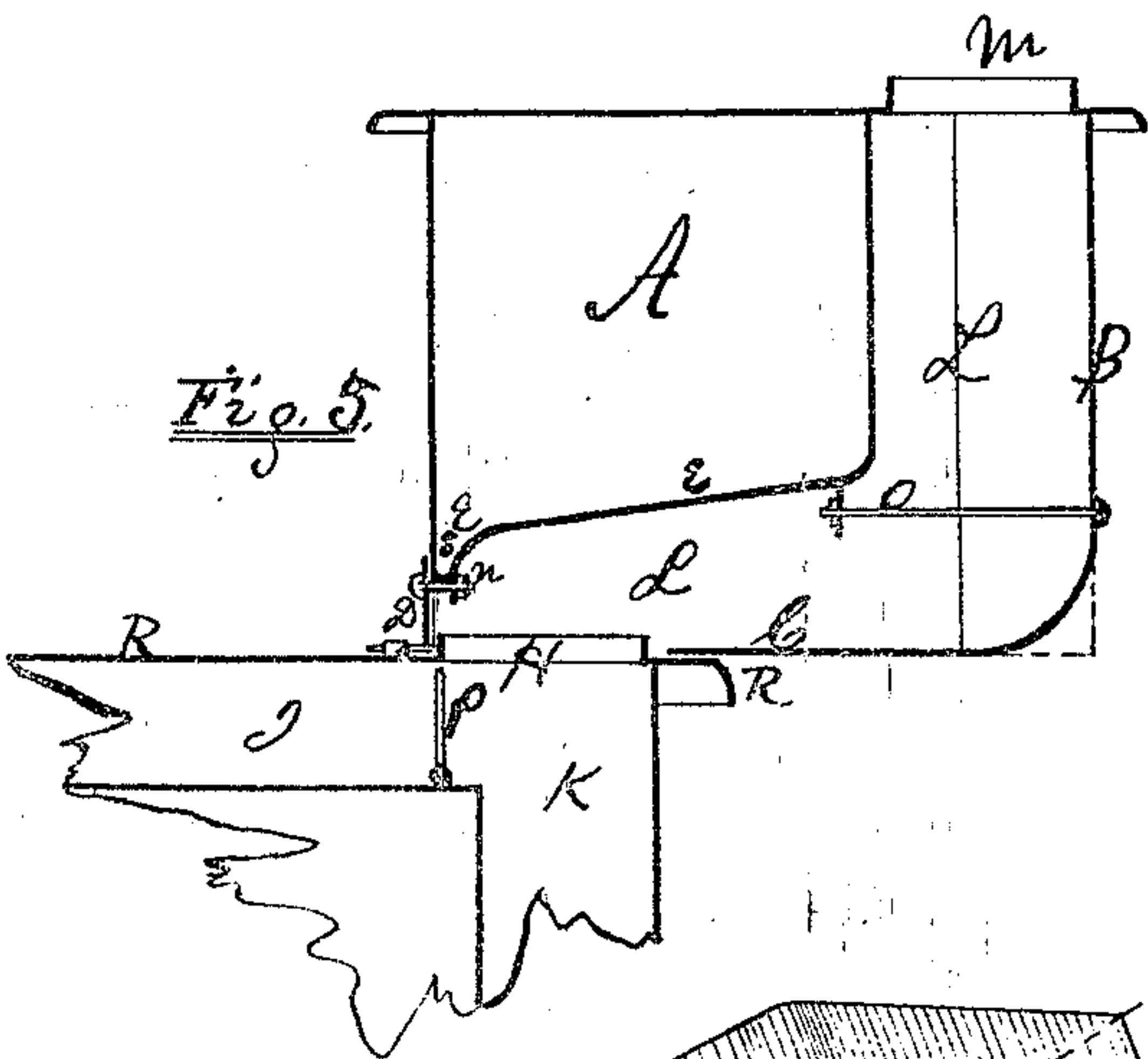


Fig. 5.

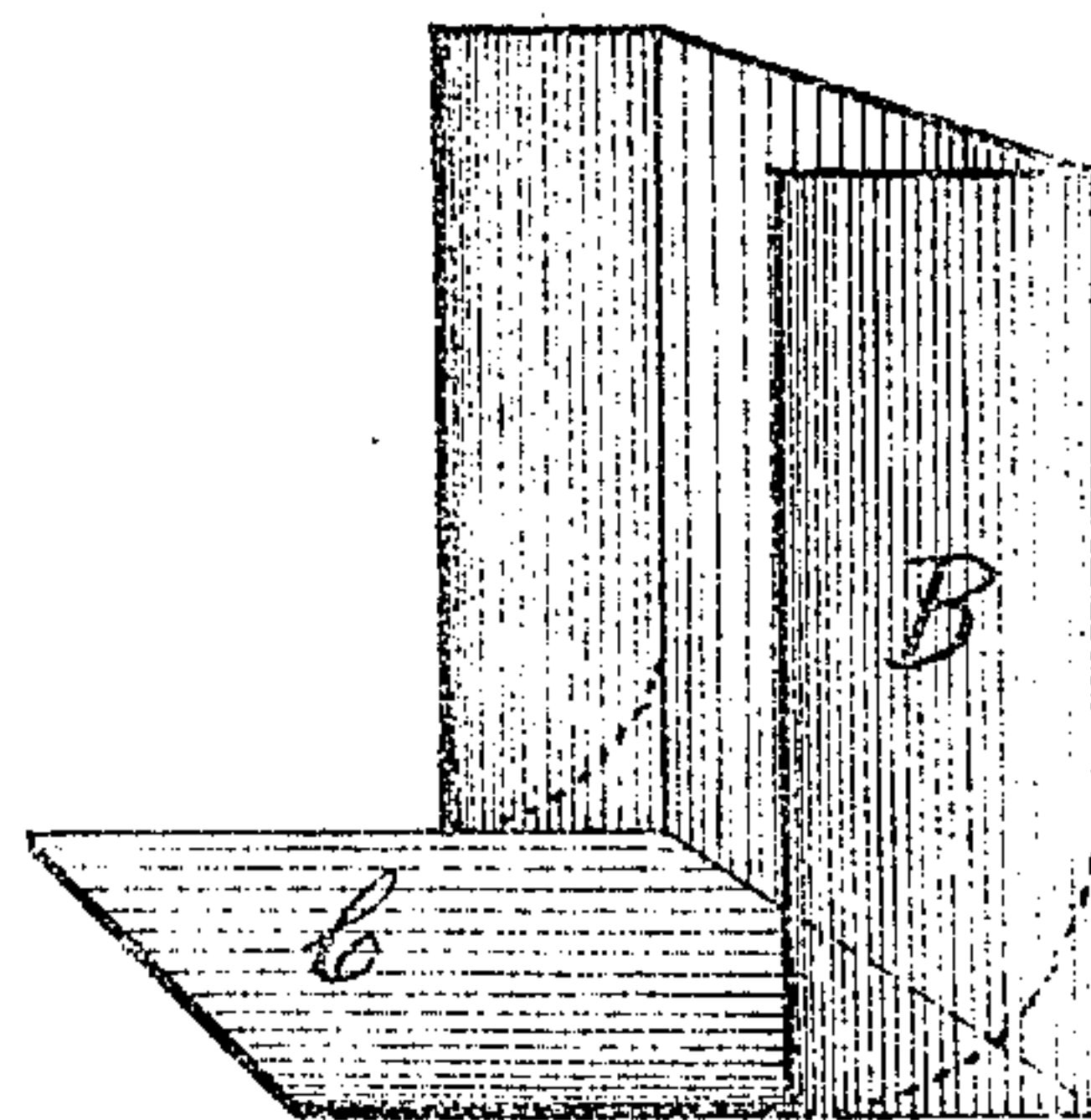


Fig. 8.

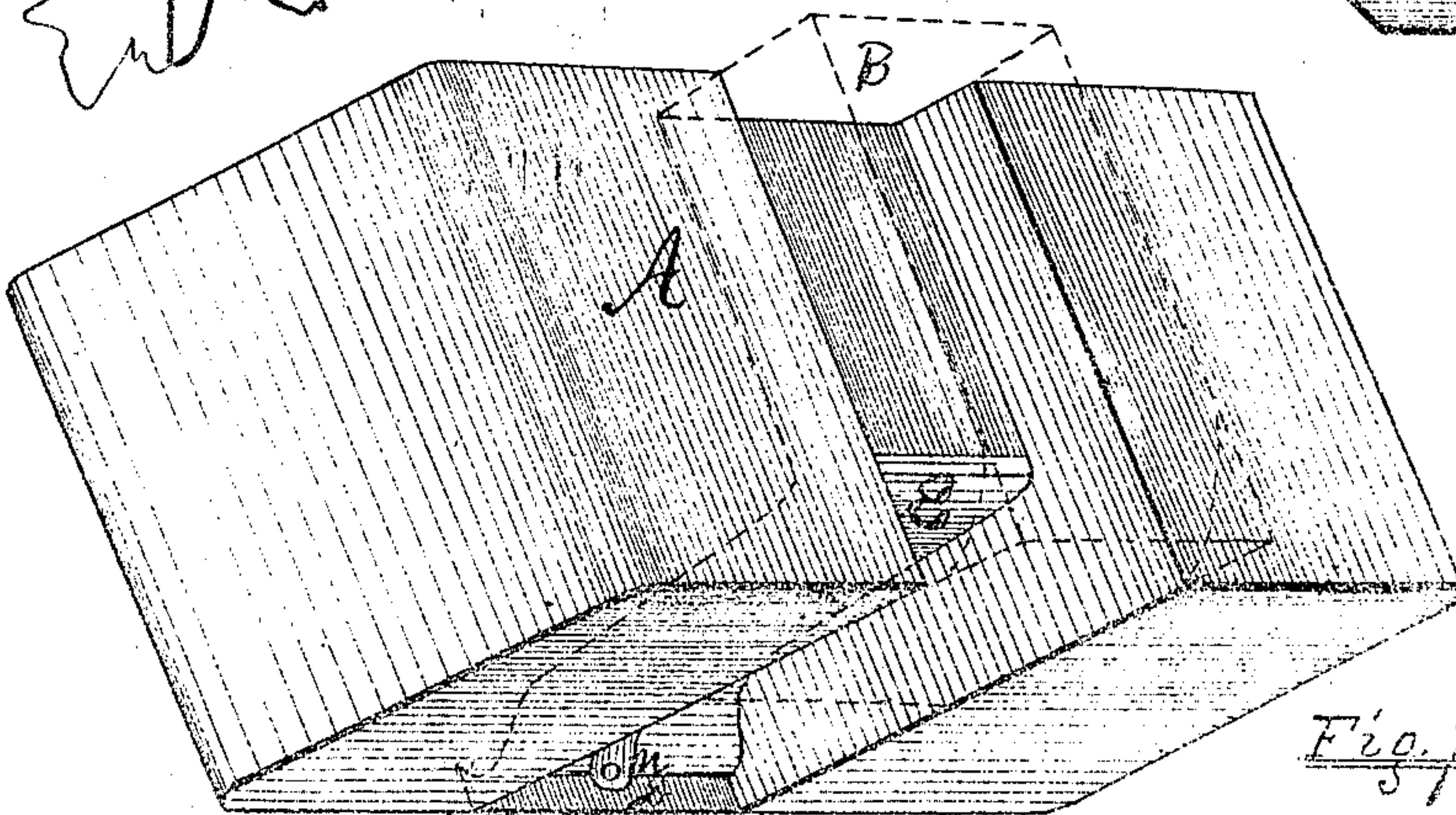


Fig. 7.

Witnesses.

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DANIEL E. PARIS, OF TROY, NEW YORK.

Letters Patent No. 113,790, dated April 18, 1871.

IMPROVEMENT IN COOKING-STOVES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, DANIEL E. PARIS, of the city of Troy, in the county of Rensselaer and State of New York, have invented new and useful Improvements in Top-Reservoirs for Cooking-Stoves; and I do hereby declare that the following is a clear and accurate description of the same, reference being had to the accompanying drawing and to letters of reference marked thereon, like letters representing like parts, in which—

Figure 1 is a vertical side view taken through the center, front to rear.

Figure 2 is a vertical rear view taken through A B of fig. 1.

Figure 3 is a perspective front and end view of the reservoir attached to the stove top in its position sitting over the pipe-collar; showing also the manner of attaching it to the stove top by means of the ears or lugs F F cast on the two front corners of the reservoir.

Figure 4 is the movable center piece to the reservoir, which is seen again at D in fig. 3; this is attached to the reservoir by means of a bolt at N; and

Figure 6 is a different form or shape of the same piece, which difference is hereinafter explained.

Figure 5 is a vertical sectional view, the same as fig. 1, except it has the movable piece on the front which is shown in fig. 6, and which, being straight, brings the reservoir further to the front of the stove.

Figure 7 is a perspective rear, end, and bottom view, with the back flue-piece seen in Figure 8 removed, but the position of which is shown by the dotted lines B.

It will be seen that this reservoir is similar to a former invention of mine, but differs in two very important particulars, without which the invention is almost useless.

This reservoir is designed to be applied or attached to common plain-top stoves, and the two most important particulars in which this differs from my former invention are designed to facilitate and improve the mode of adjusting and attaching the reservoir to a common plain-top stove, and they consist in—

First, the movable graduating piece or pieces D D, seen in figs. 4 and 6, this to assist in adjusting it to the stove; and

Second, the lugs F F, cast on the lower front part of the reservoir, these to improve the mode of attaching the reservoir to the stove.

I have improved the reservoir in two other important particulars:

First, in depressing the central raised portion of the bottom E E, at the front side of the reservoir at S S, figs. 1 and 5, so that the water may connect and flow from side to side, for it often happens that only one side of a reservoir can be got at in use, and it almost always happens that one side is far more convenient

to get at than the other. Thus it is exceedingly important that the water flow from side to side as it is used out of the reservoir, and it is thus done without materially reducing the size of the flue L L.

And again, I have improved the back flue-piece B, seen in fig. 8, by graduating its length on the bottom or horizontal part O to correspond with the piece used in front. Thus the horizontal bottom or foot-part O is longer in fig. 1 than in fig. 5, for the reason that as the curved front piece D throws the reservoir further back, so the length of the foot-piece C must be proportionately increased in length, so that it will reach and make close connection with the rear part of the stove top R.

The object and simplicity of the lugs F F, seen in fig. 3, are apparent without further description than simply to say that they are cast solid with the reservoirs, (which I usually make of cast-iron;) but these lugs, as they are cast on the smaller or bottom part of the reservoir, and therefore drawn with the cope in casting, must be made separate from the reservoir itself in the pattern.

These lugs are cast on the front, or, if on the ends of the reservoir, they should be near to the front corner, and sufficiently far apart, so that the bolts that pass through them and hold the reservoir to the stove top R will go through the latter outside of the jamb or side-plate of the stove. Thus, if the stove top has holes already cast to receive the reservoir, it will not injure the operation of the stove when used without the reservoir, because these holes will be outside of the jamb, so as to leave no opening into the flue or flues. Thus the reservoir can be taken off after once attached to a stove, and the stove used just as well without it.

The curved and straight pieces D D, figs. 4 and 6, are used as follows:

When the back boiler-holes G G, seen in fig. 3, are near to the front side of the pipe-collar, then the curved piece seen in fig. 1 must be used; but when they are one and one-half or two inches distant, (which in ordinary stoves does not often happen, however,) then the straight piece may and should be used; but if the straight piece, seen in fig. 6, were used on a stove where the rear line of the rear boiler-holes G G was within a half inch of the front side of the pipe-collar, (as is often the case,) then the rear boiler-holes would be rendered useless, because the front upright side of the reservoir would be so near to the boiler-holes that an ordinary pot or kettle could not be set over them, because the bulged or projecting part of the kettle or pot projects from one and one-quarter to one and three-quarters inch all around.

For this reason my former invention was greatly deficient, because, as the front of the reservoir was

all cast or made solid and straight, it could only be used on certain stoves.

It was found, also, that the mode of fastening the reservoir to the stove top was equally imperfect, as that mode of fastening through the pipe-collar could be used only when a certain amount of room could be had below the collar; but the mode of fastening the reservoir here shown does not depend on any accident or good luck, for it is readily bolted to any stove top, and, by means of the graduating piece or pieces D D in front of the reservoir, I am enabled to fit the reservoir to any ordinary stove, it matters not where the pipe-collar may be located as regards the rear boiler-holes of the stove.

The way in which or by which the reservoir is heated and its position as regards the rear and top flues of the stove I and K may not only be seen by the drawing and the arrow in fig. 1, but this was fully explained in my former patent.

I may add that the mode of casting the reservoir with the piece D made separate or movable is a valuable invention of itself; for if it is cast solid with the reservoir it has to be so thick at the top in order to mold good that it draws the iron from the other parts of the reservoir, so that they will not cast even, and in cooling, the larger body of metal cooling more slowly, is apt to crack the vessel; and even if it could

be made thin if it were cast solid with the reservoir, it would be easily broken in shipping or handling, and if broken it could not well be repaired, and thus the vessel would be useless; but if, when the piece D is made separate and movable, it gets broken in shipping or otherwise, (as is often the case,) it is easily replaced for eight or ten cents, and the reservoir, worth at wholesale six or seven dollars, is uninjured.

Having thus fully described my said invention or improvement,

What I claim is—

1. A reservoir for cooking-stoves, constructed with the movable piece D, or its equivalent, substantially as and for the purpose herein set forth and explained.
2. The lugs F F, or their equivalent, cast solid with a water-reservoir, at or near its lower bottom edge, when the reservoir is made larger at the top than at the bottom, substantially as and for the purpose herein shown and described.
3. The back flue-piece B, with its adjustable foot-piece C, in combination with the movable front-piece D, made for the purpose and substantially in the manner herein set forth and explained.

DANL. E. PARIS.

Witnesses:

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WM. D. HERON.