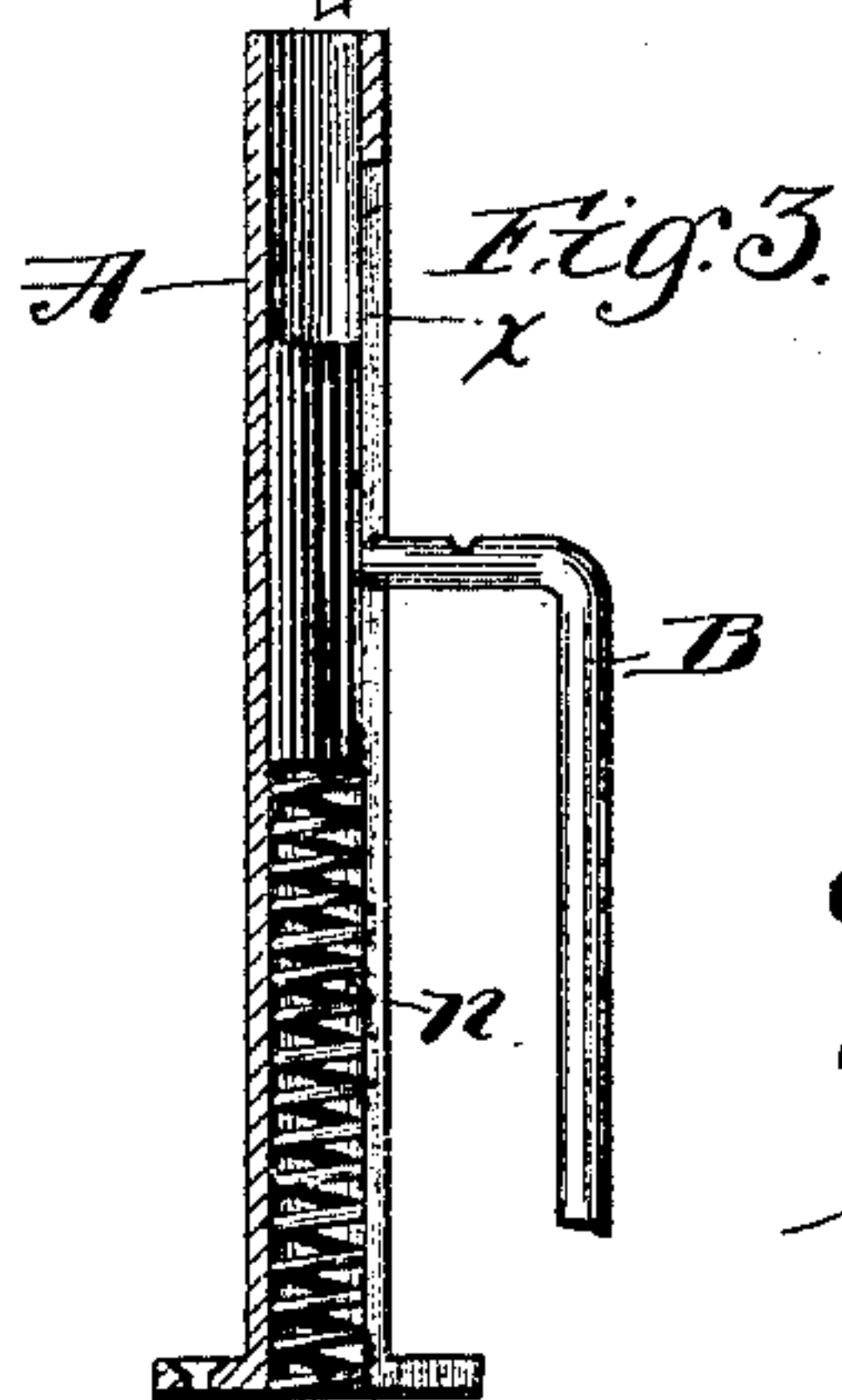
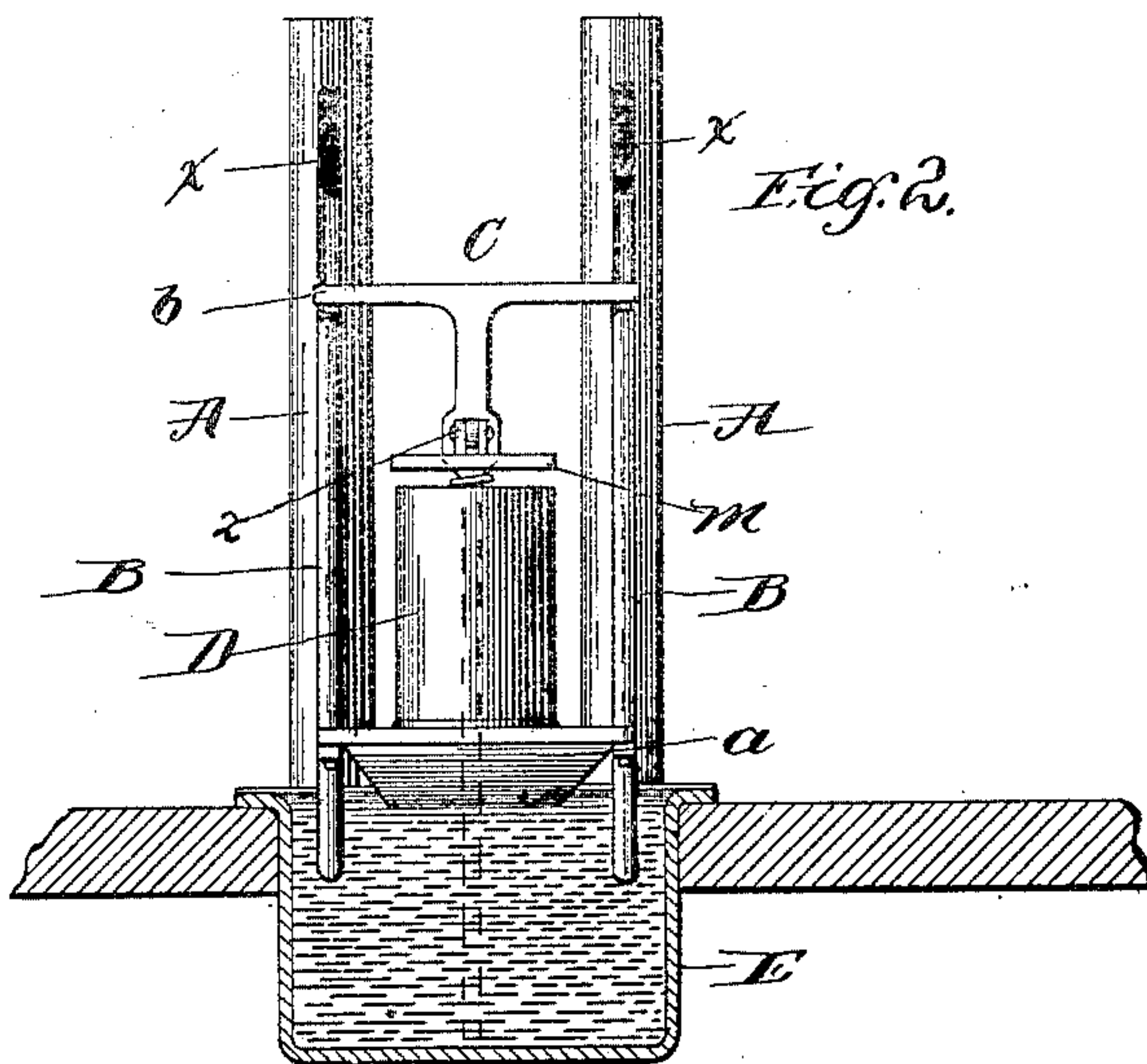
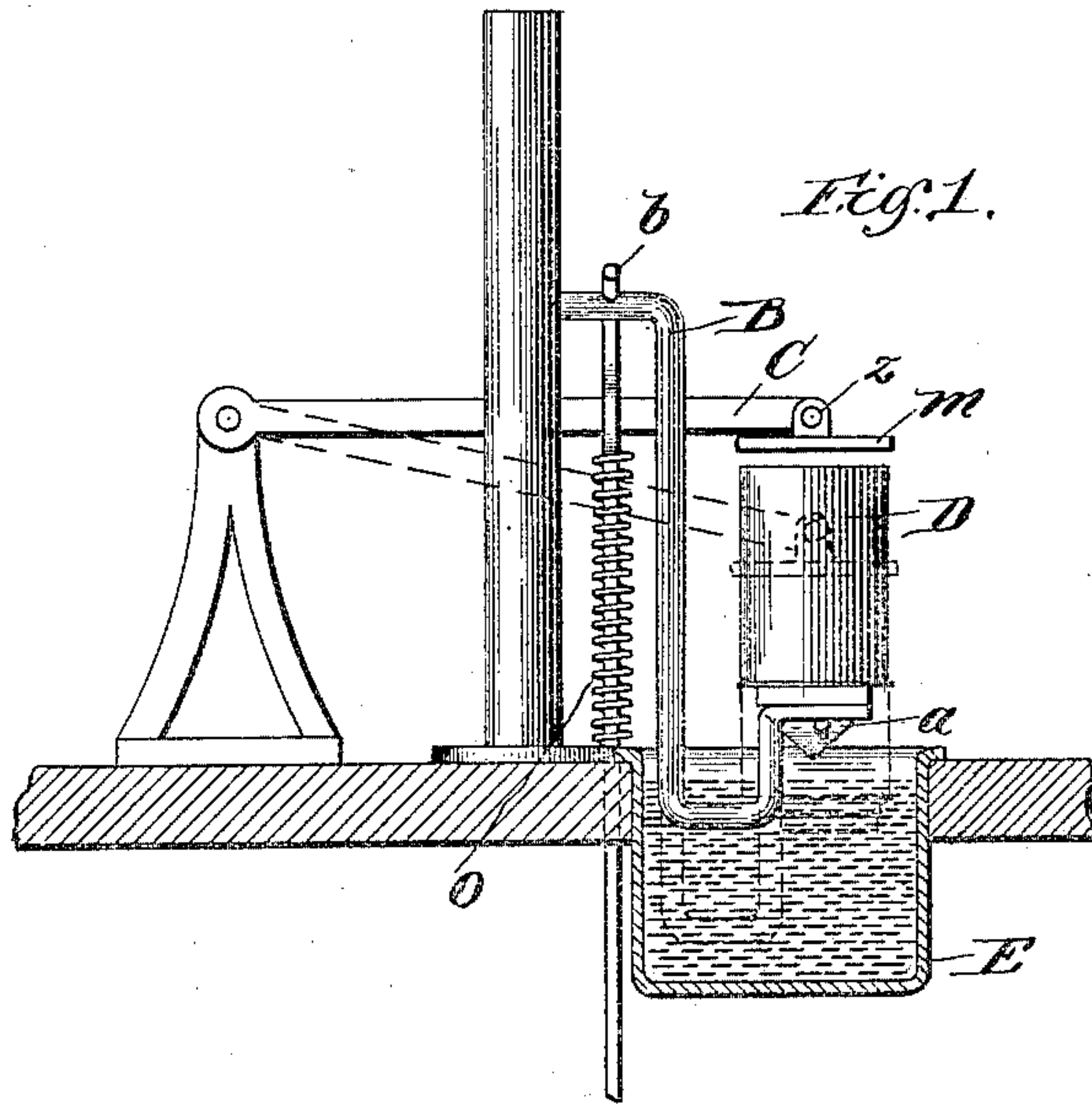


(No Model.)

E. J. BRADLEY & R. C. ALTPETER.  
CAN SOLDERING MACHINE.

No. 461,092.

Patented Oct. 13, 1891.



Witnesses:

Wm. M. Rhems  
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att'y

# UNITED STATES PATENT OFFICE.

EDWARD J. BRADLEY AND ROBERT C. ALTPETER, OF CHICAGO, ILLINOIS.

## CAN-SOLDERING MACHINE.

SPECIFICATION forming part of Letters Patent No. 461,092, dated October 13, 1891.

Application filed June 3, 1891. Serial No. 394,933. (No model.)

*To all whom it may concern:*

Be it known that we, EDWARD J. BRADLEY and ROBERT C. ALTPETER, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Machines for Soldering Tin Cans, of which the following is a specification.

The usual method of soldering the bottoms on cans is by hand and by the use of copper, &c. By our method the copper is not required and the cost of soldering is much reduced. We accomplish this by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of our machine. Fig. 2 is a front view of the same. Fig. 3 is a vertical cross-section of one of the tubes.

Similar letters refer to similar parts throughout the drawings.

A A are vertical tubes.  
B B are projecting arms.  
C is the plunger.  
D is the can.  
E is the soldering-bath.  
a is the beveled iron plate on which the can D rests.

b b are vertical iron posts or standards supporting the springs o o.

m is a plate attached to the plunger C.  
n n are spiral springs in the tubes A A.  
o o are springs on the posts or standards b b.  
x x are the slots in tubes A A.

z is a loose pin in end of plunger C, attaching the plate m.

In the construction of our machine we place the two vertical tubes A A on the edge of a table or other support. The tubes A A, Fig. 2, have slots running nearly their entire length, which permit the spiral springs n n therein to engage with the projecting arms B B, which, emerging from the tubes A A through the slots x x, are bent much like the letter S inverted, and which support at their opposite ends and over the liquid bath E the iron plate

a, on which rests the tin can D. The bottom of the can, having been previously crimped on, is then plunged into the soldering-fluid underneath by means of the plunger C, which may be operated by a treadle or other motor. The spiral springs n n, engaging with the arms B B, elevate them, and consequently the can, from the bath as quickly as the pressure from the plunger C is removed. The springs o o on the vertical bars or standards b b engage with the plunger C, and elevate it when it is released or the pressure upon it is removed, permitting the can to be replaced by another. The plate m on the end of the plunger C is attached to the plunger by means of the loose pin z, so as to produce an even pressure upon the can D.

The bath E is suspended from the table on which the machine rests, so that it is immediately underneath the plate a. The plate a is beveled underneath, so as to present the least possible surface to the bath to avoid splashing the fluid.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

In a can-soldering machine, the combination of the vertical tubes A A, springs n n in said tubes, said tubes provided with slots x x throughout nearly their entire length, bent arms B B, projecting through said slots and engaging with the spiral springs n n, and the horizontal plate a, which is beveled underneath and suspended by the arms B B over the soldering-bath E, with the plunger C, the spring o, supporting said plunger, and the plate m, pivoted to said plunger by the loose pin z, said plate adapted to operate upon the can D, set upon the plate a, as above described.

EDWARD J. BRADLEY.  
ROBERT C. ALTPETER.

Witnesses:

H. C. HUNSBERGER,  
J. I. KOFFERT.