

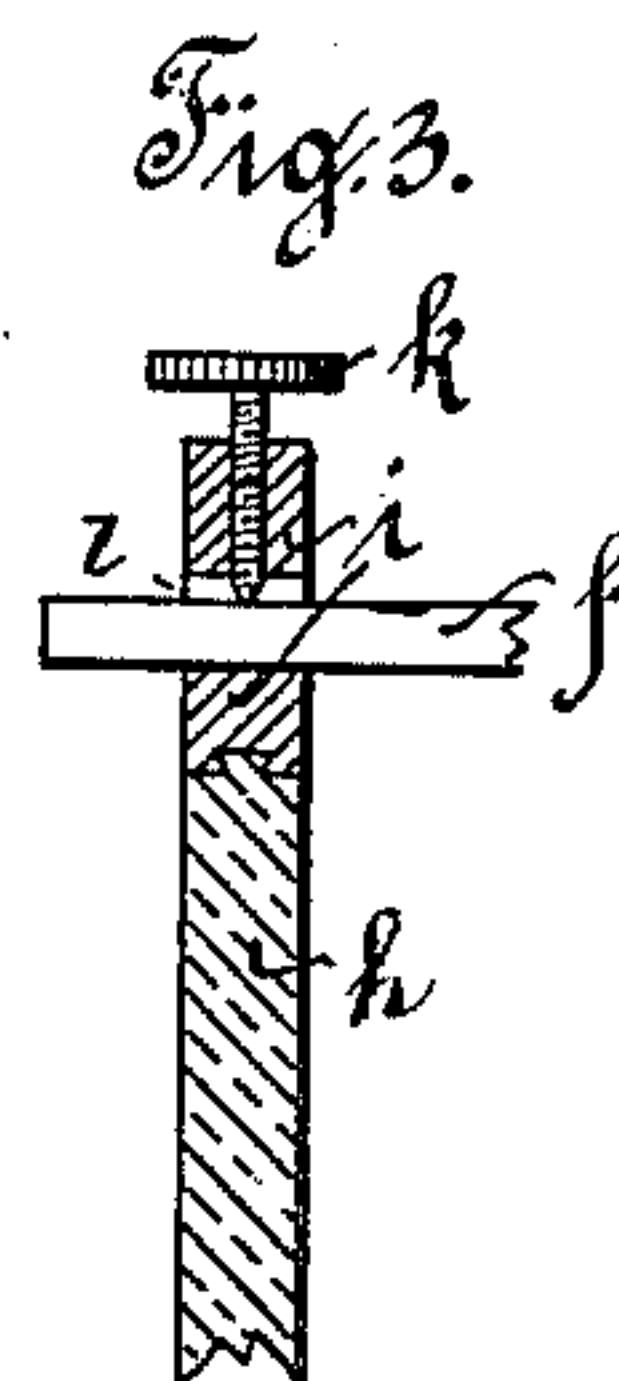
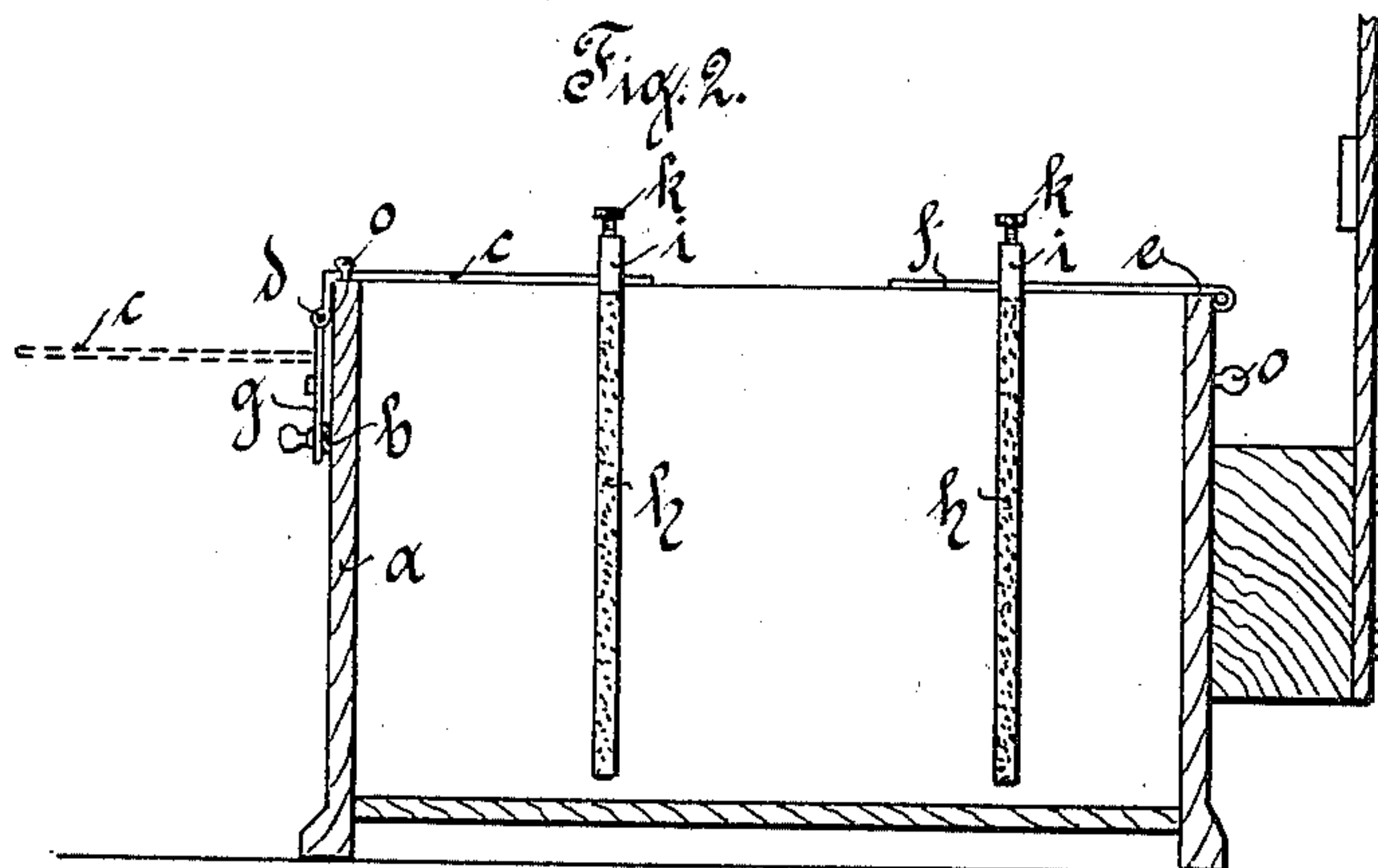
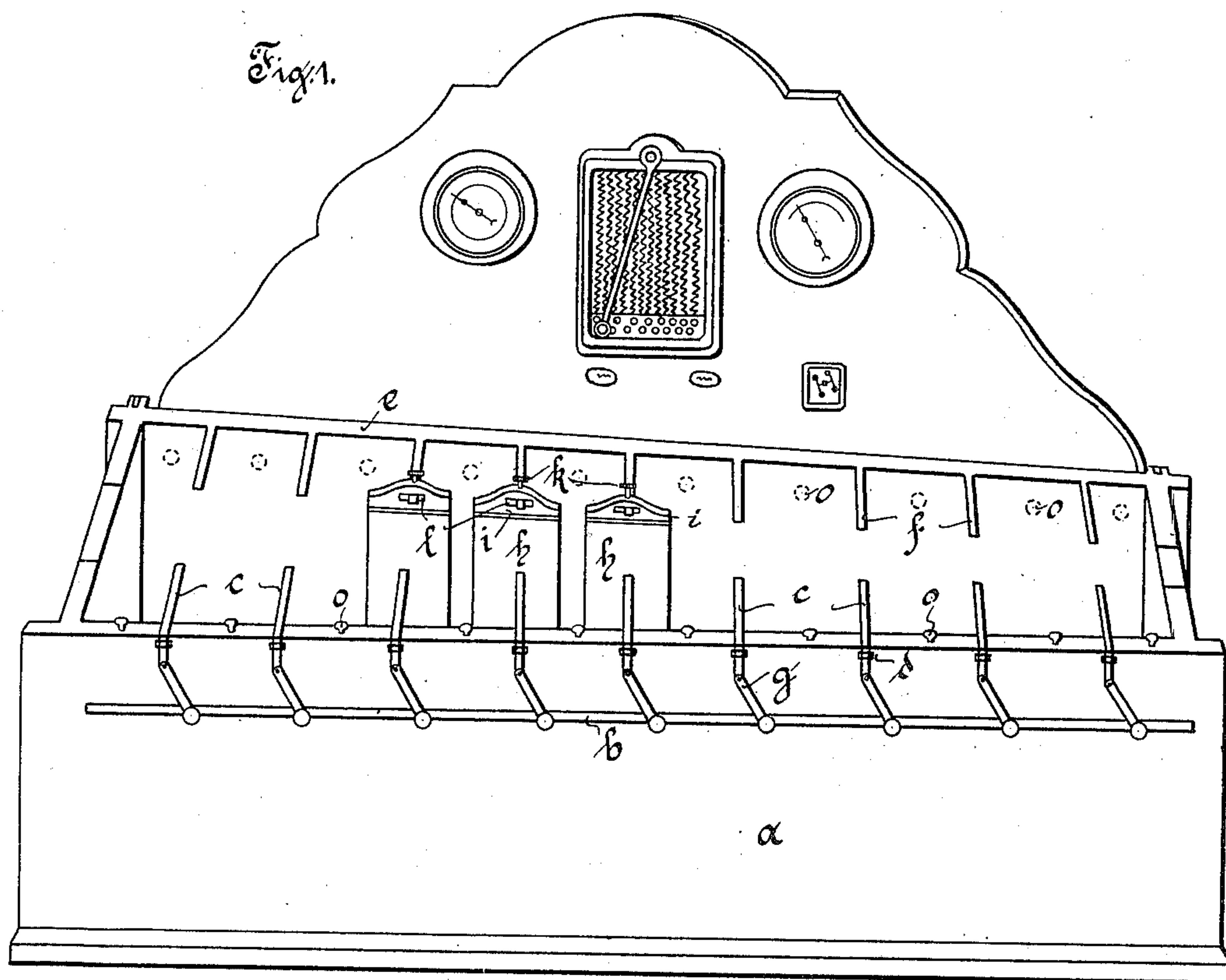
No. 652,446.

Patented June 26, 1900.

J. J. STANGER.  
ELECTROMEDICAL BATH.

(Application filed Apr. 20, 1900.)

(No Model.)



Witnesses:  
William Schulz.  
Thomas Burke.

Inventor:  
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by his attorneys  
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# UNITED STATES PATENT OFFICE.

JOHANN JAKOB STANGER, OF ULM, GERMANY.

## ELECTROMEDICAL BATH.

SPECIFICATION forming part of Letters Patent No. 652,446, dated June 26, 1900.

Application filed April 20, 1900. Serial No. 13,596. (No model.)

*To all whom it may concern:*

Be it known that I, JOHANN JAKOB STANGER, a citizen of Germany, and a resident of Ulm, Württemberg, Germany, have invented  
5 new and useful Improvements in Electrical Medical Baths, of which the following is a specification.

The present invention refers to a special type of an electrical bath in which the electrodes are movably arranged in such a way  
10 that the electric current can be concentrated or distributed in any place of the bath.

In the annexed drawings, Figure 1 is a front view of the bath-tub. Fig. 2 is a cross-section of the same. Fig. 3 shows the manner in  
15 which the electrodes are fastened.

The bath-tub, Fig. 1, is of a trapezoidal shape and consists of wood or other isolating substance. The front wall *a* of the bath-tub  
20 is provided with a metal band *b*, to which one pole of the battery is fixed. A number of metal rods *c* are fixed to the rim of the bath-tub above this metal band *b* in such a way that each can be turned on its hinge *d*. These  
25 metal rods can be switched on the metal band *b* by means of switch-levers *g*. On the opposite side of the bath-tub a metal rake *e*, provided with as many teeth *f* as there are hinge-bars *c*, is also so hinged to the bath-tub that  
30 it can be turned up. To this rake the other pole is fixed.

For the purpose of conducting the current into the bath fluid electrodes *h*, reaching almost to the bottom of the tub, and consequently nearly equal in length to the depth of the tub, are movably arranged on the metal bars *c*, as well as on the metal teeth *f* of the rake *e*. At their upper ends these electrodes are provided with a metal socket *i*, in the  
40 midst of which an oblong opening *l* is arranged, through which the bars *c f* are passed. The metal sockets of the electrodes being provided with these oblong openings *l*, through which bars *c f* may be passed, Fig. 3, the electrodes can be displaced, as well as laterally  
45 turned and fixed, by screw *k* upon the bars. In this way the metal sockets *i* of the electrodes *h* are firmly pressed against the bars

*c f*, thereby insuring a good contact. As the electrodes can be displaced and turned on  
50 the conducting-bars *c f*, the intensity of the current can be changed in every place of the bath. Moreover, further variations in this respect are rendered possible by switching in or cutting out each switch-lever *g*. Thus, for  
55 instance, the current may be conducted obliquely and transversely through the bath by corresponding adjustment and switching in of the electrodes. The advantage of this arrangement is that the intensity of current per  
60 square inch can be regulated everywhere in the bath without it being necessary that the metal parts of the electric equipment come into contact with the bath fluid, whereby decomposition might take place.

The current is conducted to the tub by a switchboard fastened to it. On said switchboard a rheostat, the handle of which can easily be turned by the person in the bath, is provided for regulating and adjusting the  
70 intensity of the current. In like manner a voltmeter and ampere-meter, as well as a current-reverser and electric alarm, are arranged on the switchboard.

I claim—

1. In an electric bath, the combination of a bath-tub with a series of rods arranged on opposite sides thereof, switch-levers for throwing some of said rods in circuit, and electrodes supported upon said rods and projecting into  
80 the tub, substantially as specified.

2. In an electric bath, the combination of a bath-tub with a series of pivotally-movable rods arranged on opposite sides thereof, switch-levers for throwing some of said rods  
85 in circuit, and electrodes adjustably supported by the rods and projecting into the tub, substantially as specified.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

JOHANN JAKOB STANGER.

Witnesses:

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