

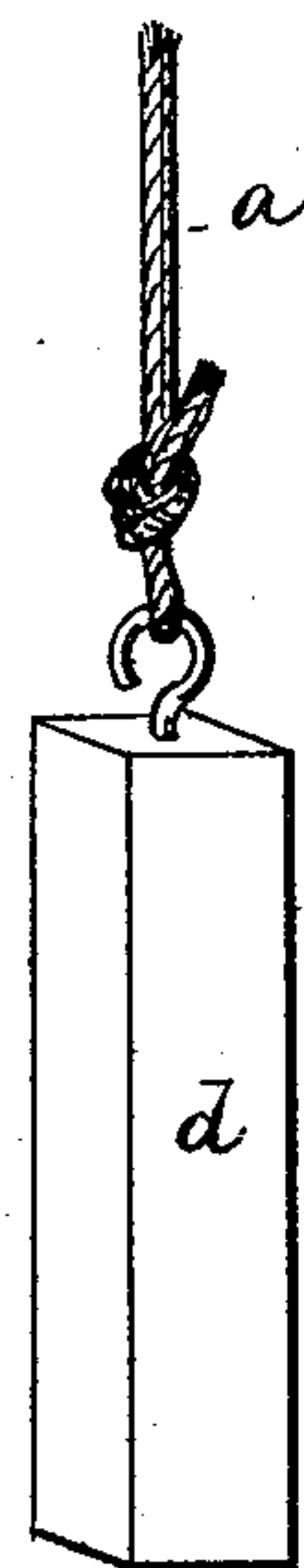
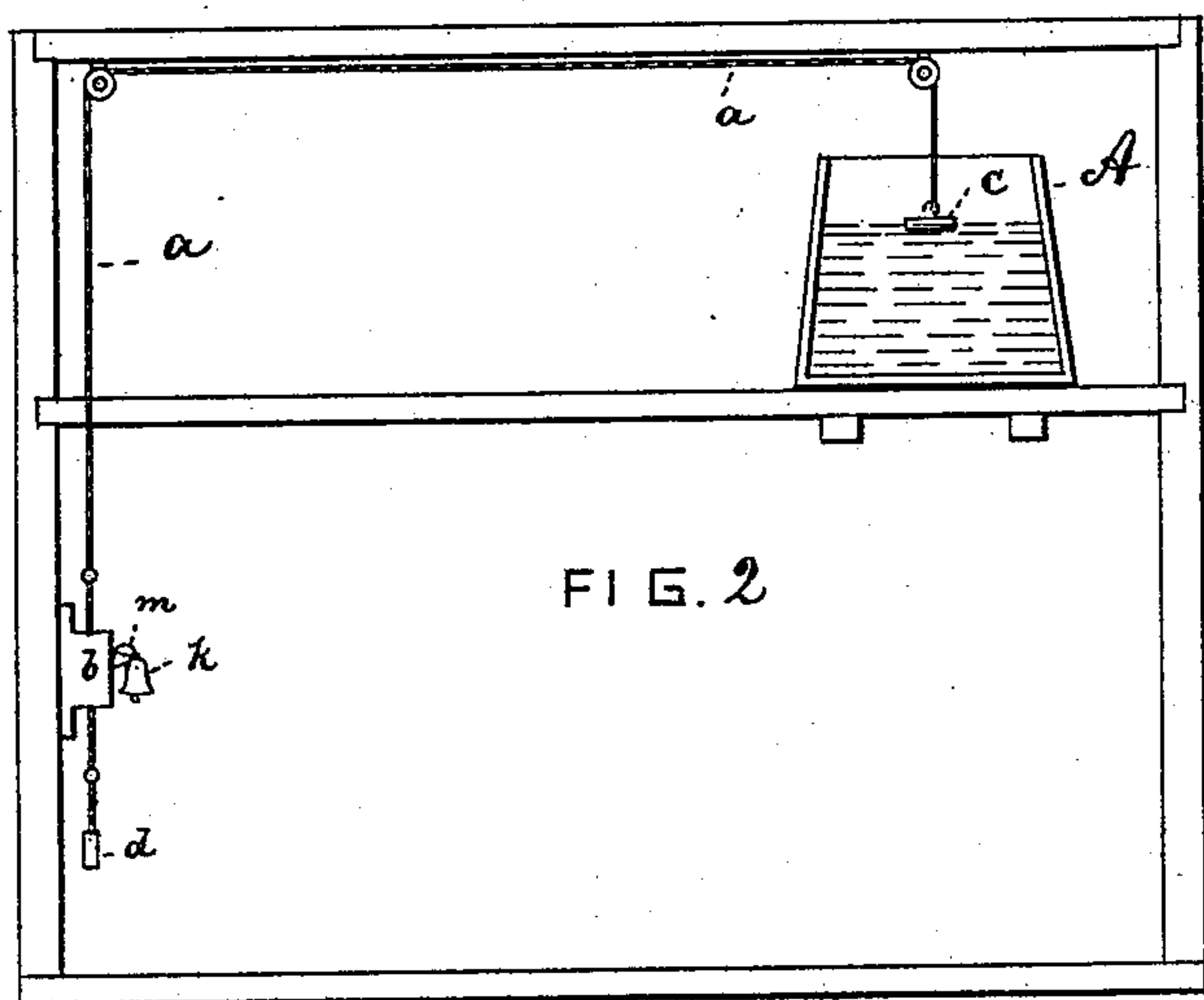
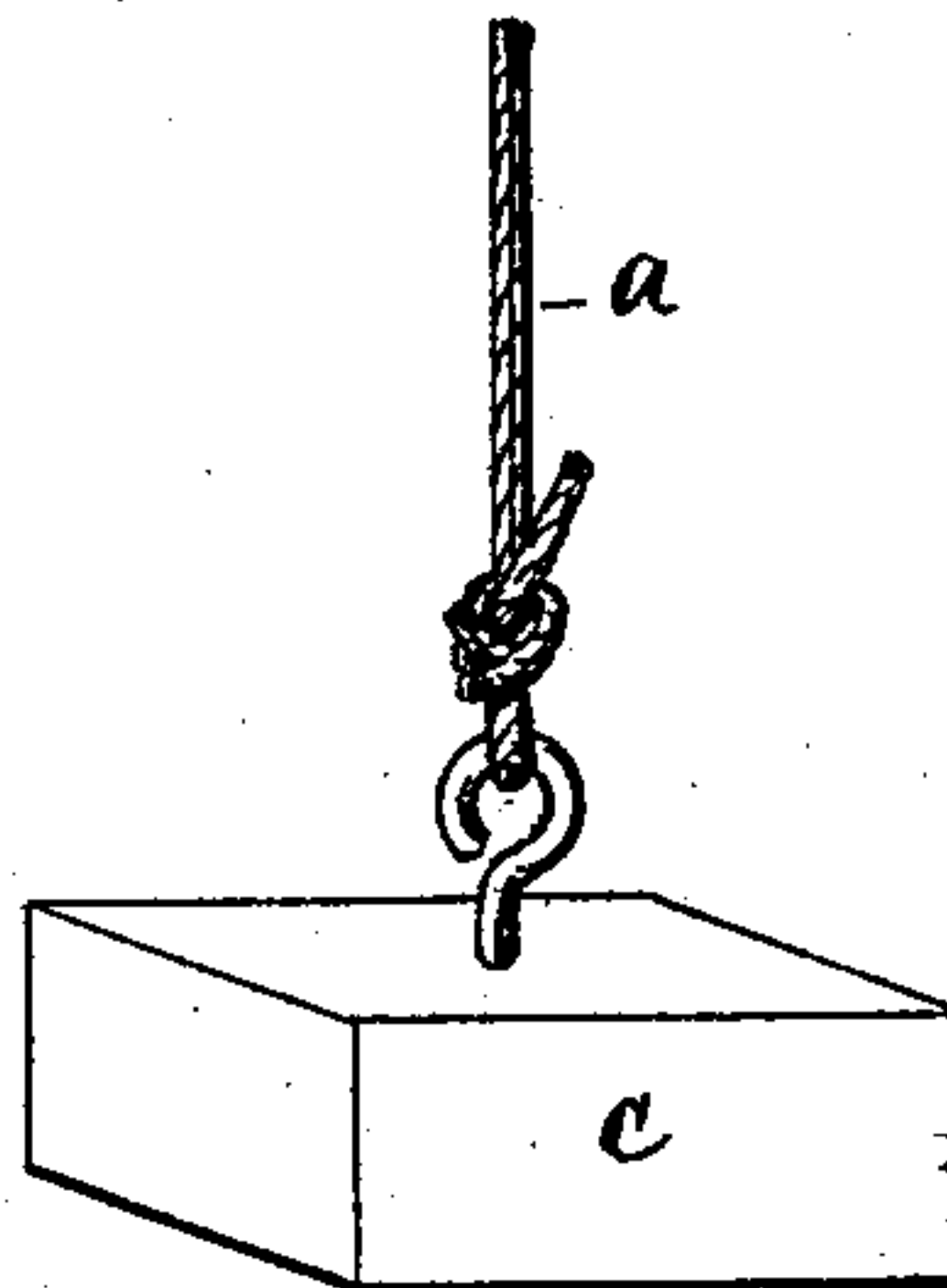
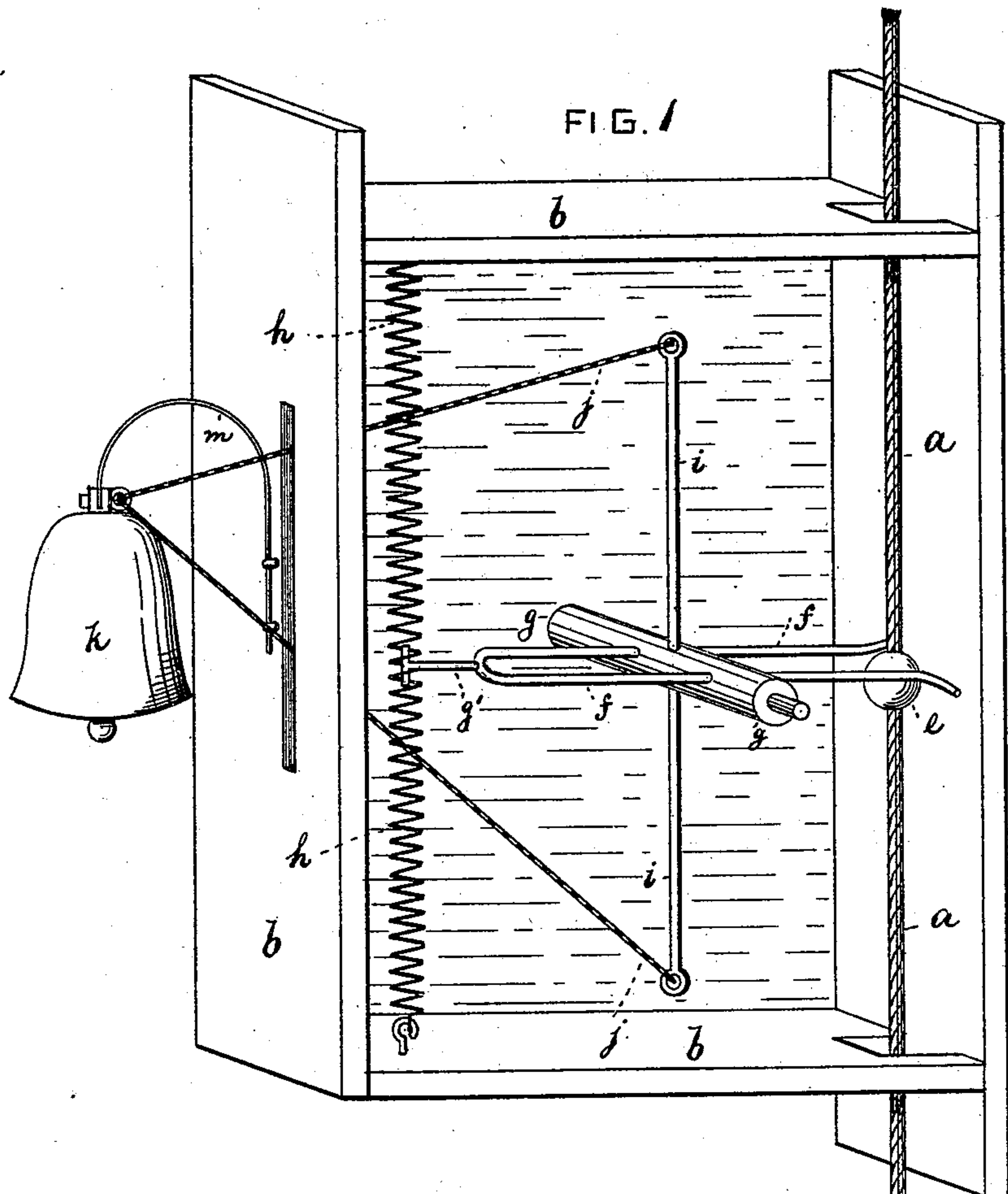
(No Model.)

L. HOFMEISTER & O. E. SCHWABE.

OVERFLOW ALARM.

No. 395,830.

Patented Jan. 8, 1889.



WITNESSES

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UNITED STATES PATENT OFFICE.

LOUIS HOFMEISTER AND OTTO E. SCHWABE, OF NEW YORK, N. Y..

OVERFLOW-ALARM.

SPECIFICATION forming part of Letters Patent No. 395,830, dated January 8, 1889.

Application filed July 31, 1888. Serial No. 281,595. (No model.)

To all whom it may concern:

Be it known that we, LOUIS HOFMEISTER and OTTO E. SCHWABE, both of the city of New York, N. Y., have invented an Improved
5 Overflow-Alarm, of which the following is a specification.

This invention relates to an alarm which sounds automatically if the liquid in a tank is at its maximum or minimum height.

10 The invention consists in the various features of improvement, more fully pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of our improved overflow-
15 alarm. Fig. 2 is a vertical section showing the same in connection with a tank. Fig. 3 is a detail view of the float, and Fig. 4 a detail view of the weight.

The letter *a* represents a rope passing
20 through a casing or box, *b*, and provided on top with a float, *c*, and at the bottom with a weight, *d*, the float being somewhat heavier than the weight. Upon the rope *a* there are
25 affixed two (more or less) balls or projections, *e*.

Across the box *b* there is hung a rock-shaft, *g*, through which extends a U-shaped stop, *f*, the shanks of which are at such a distance
30 apart that the balls *e* can pass through them, but not without first imparting motion to the stop and rocking the shaft.

The shaft *g* is connected by rod *g'* to a spiral spring, *h*. Through shaft *g* there extends also a rod, *i*, secured at the top and bot-
35 tom by wires *j* to a bell, *k*, suspended from a spring, *m*. The operation of the device is as follows: The float *c* is introduced into the tank *A* and will rise with the liquid therein. The weight *d* will, as the tank is filled, draw
40 the rope *a* downward, and when the maximum height of liquid is attained one of the balls *e* will be in line horizontally with the stop *f*. On passing through the fork of the stop the

ball *e* will press the same downward, thus rocking shaft *g*. The motion of shaft *g* will
45 by rod *g'* cause a contraction of upper part of spring *h*. As soon as ball *e* has cleared stop *f*, the spring *h* will be free to suddenly expand. This will cause the rocking of shaft
50 *g*, and by it the rod *i* will be oscillated, thus causing the lower wire, *j*, to ring bell *k*. If the liquid in the tank *A* falls, the float *c*, being heavier than weight *d*, will draw the rope
55 *a* upward. Thus the operation will be repeated, as described, with the exception that the ball *e* passes through the fork *f* from the
60 bottom instead of from the top, and that the upper instead of the lower wire, *j*, will ring the bell.

What we claim is—

1. The combination of a rock-shaft with a bell, a spring, and a stop, all three of which
65 are connected to said rock-shaft, and with a rope having a series of projections that are adapted to engage the stop and rock the shaft against the action of the spring, substantially
as specified.

2. The combination of a rock-shaft with a bell and with a rod *i*, and wires *j*, that connect the bell to the rock-shaft, and with a
70 spring, *h*, and stop *f*, also connected to the rock-shaft, and with a rope, *a*, having projections *e*, that are adapted to engage stop *f*, substantially as specified.

3. The combination of a rock-shaft with a
75 bell, *k*, spring *h*, and U-shaped stop *f*, connected to said rock-shaft, and with a rope having projections *e*, adapted to engage the stop, and having a float and a weight secured to opposite ends, the bell *k* being suspended
80 from spring *m*, substantially as specified.

LOUIS HOFMEISTER.
OTTO E. SCHWABE.

In presence of—

F. V. BRIESEN,
HENRY E. ROEDER.