

(No Model.)

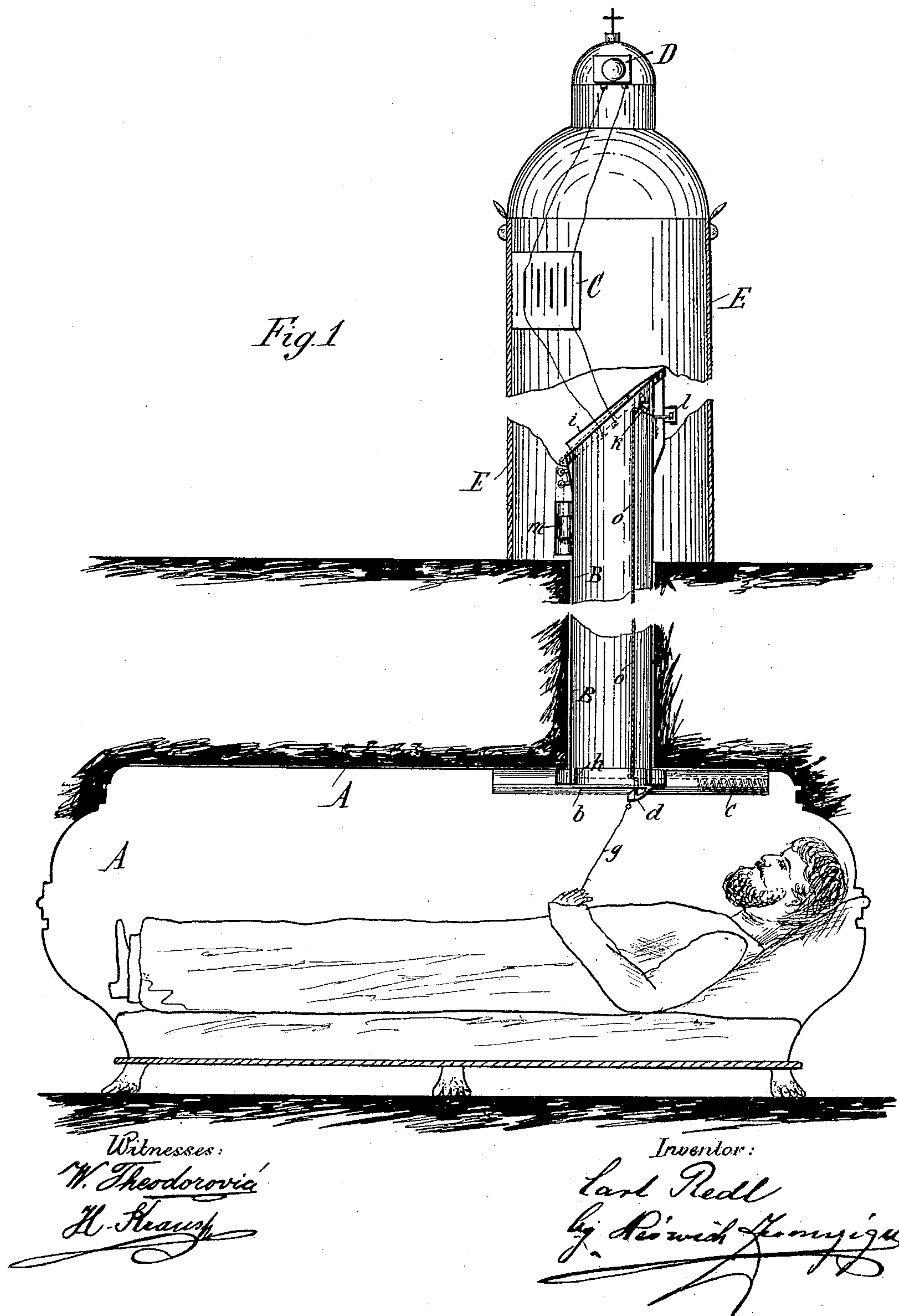
2 Sheets—Sheet 1.

C. REDL.

DEVICE FOR INDICATING LIFE IN BURIED PERSONS.

No. 371,626.

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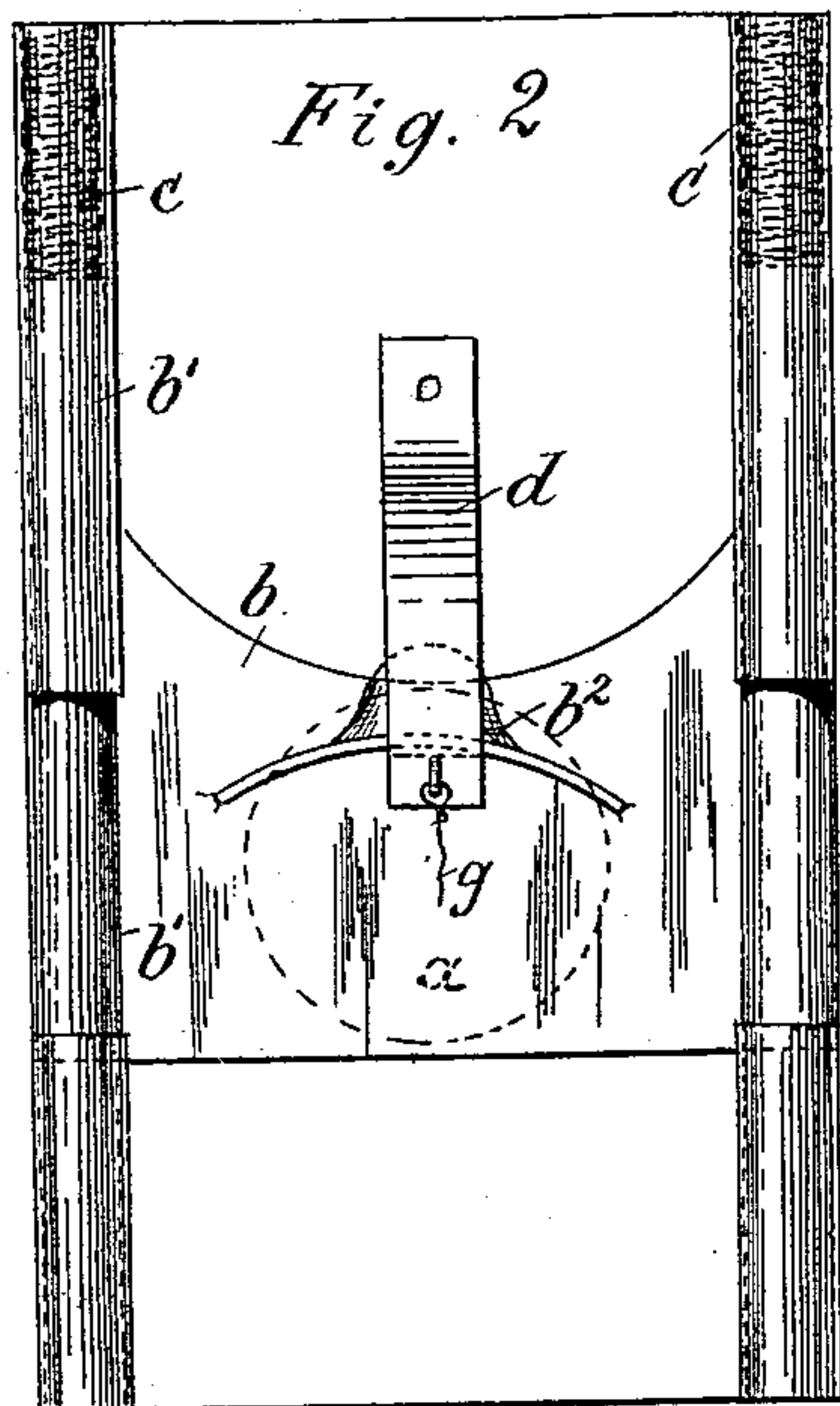
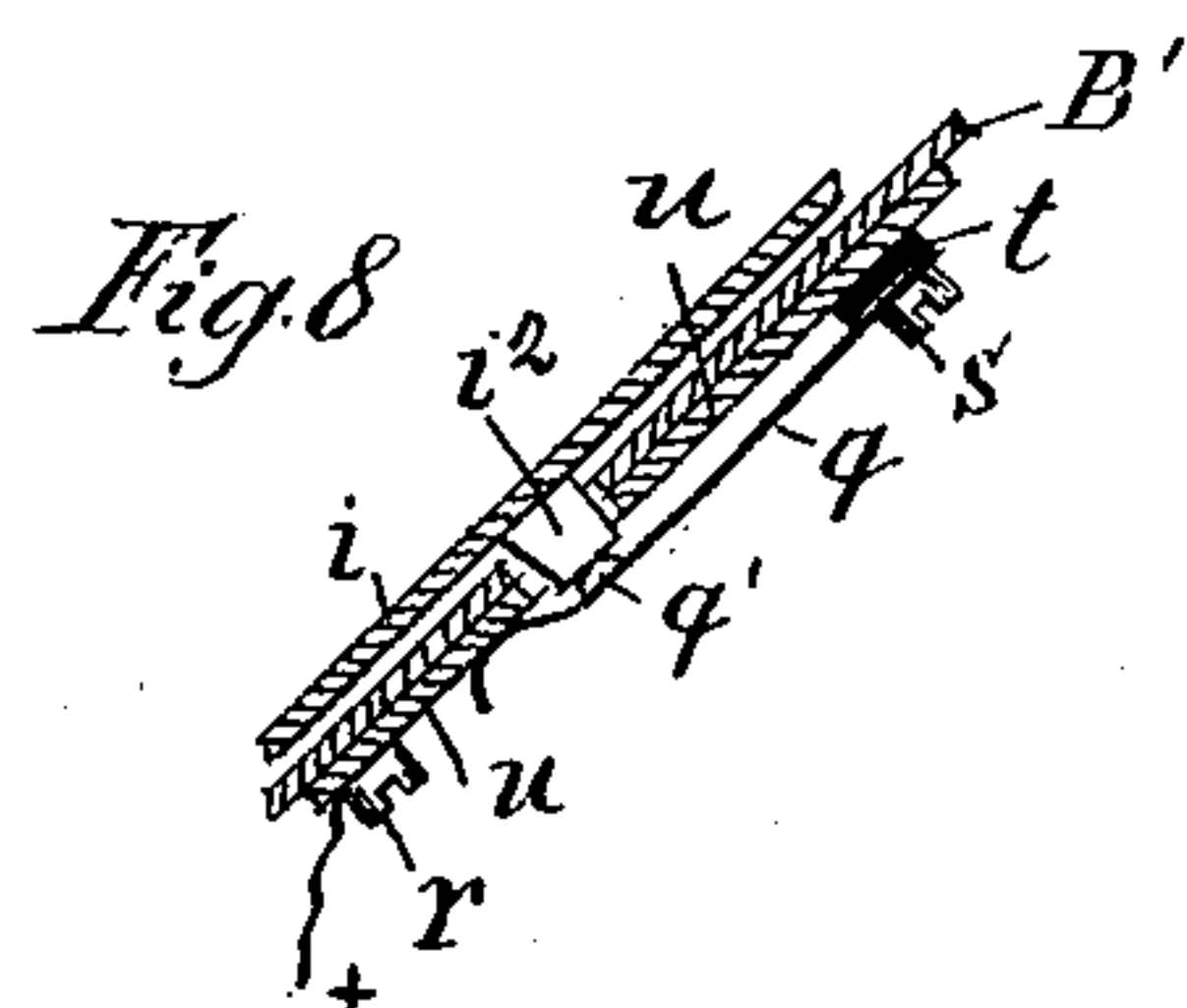
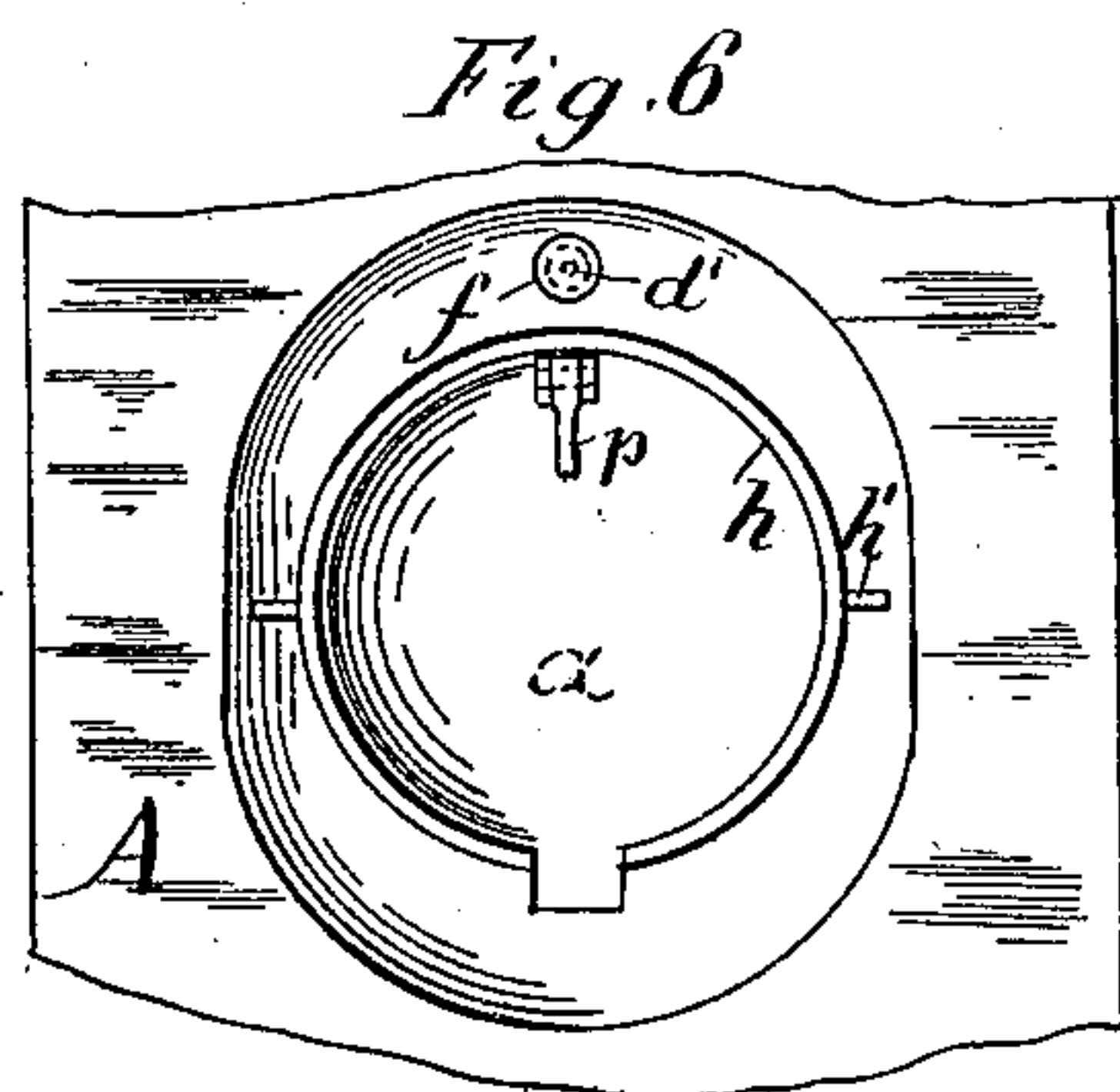
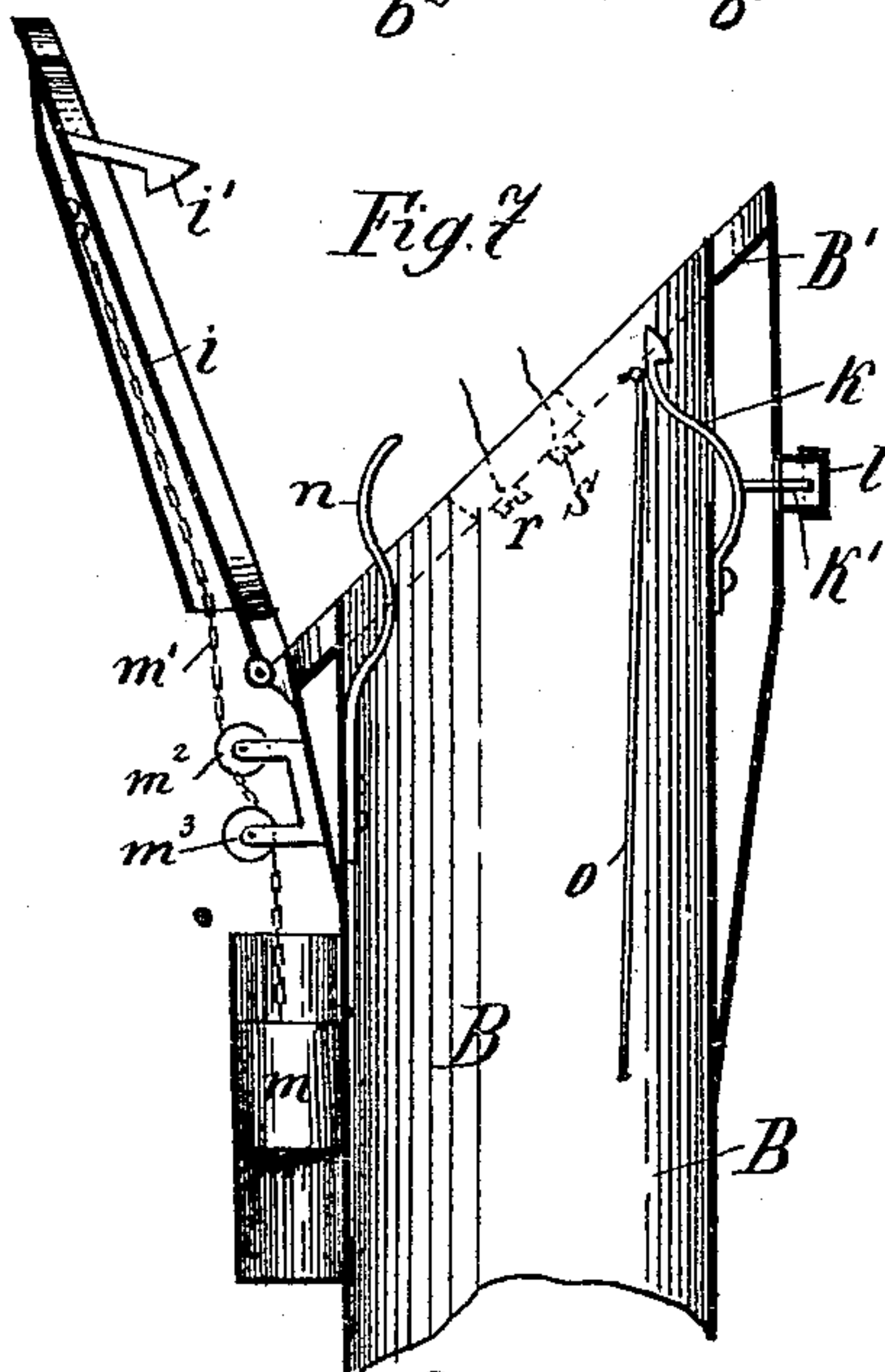
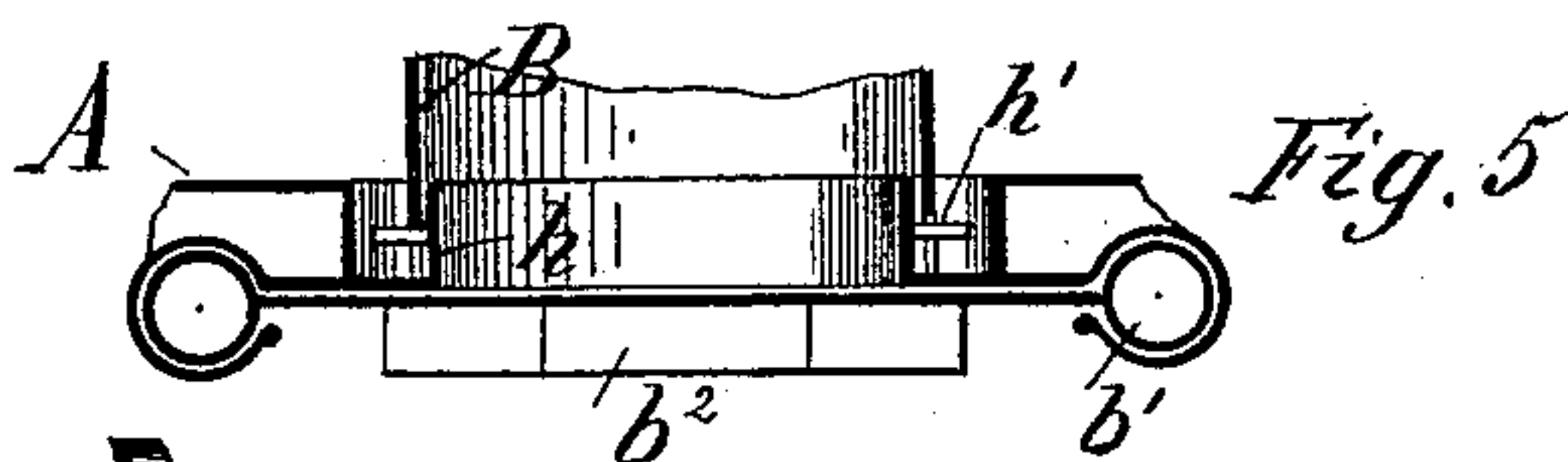
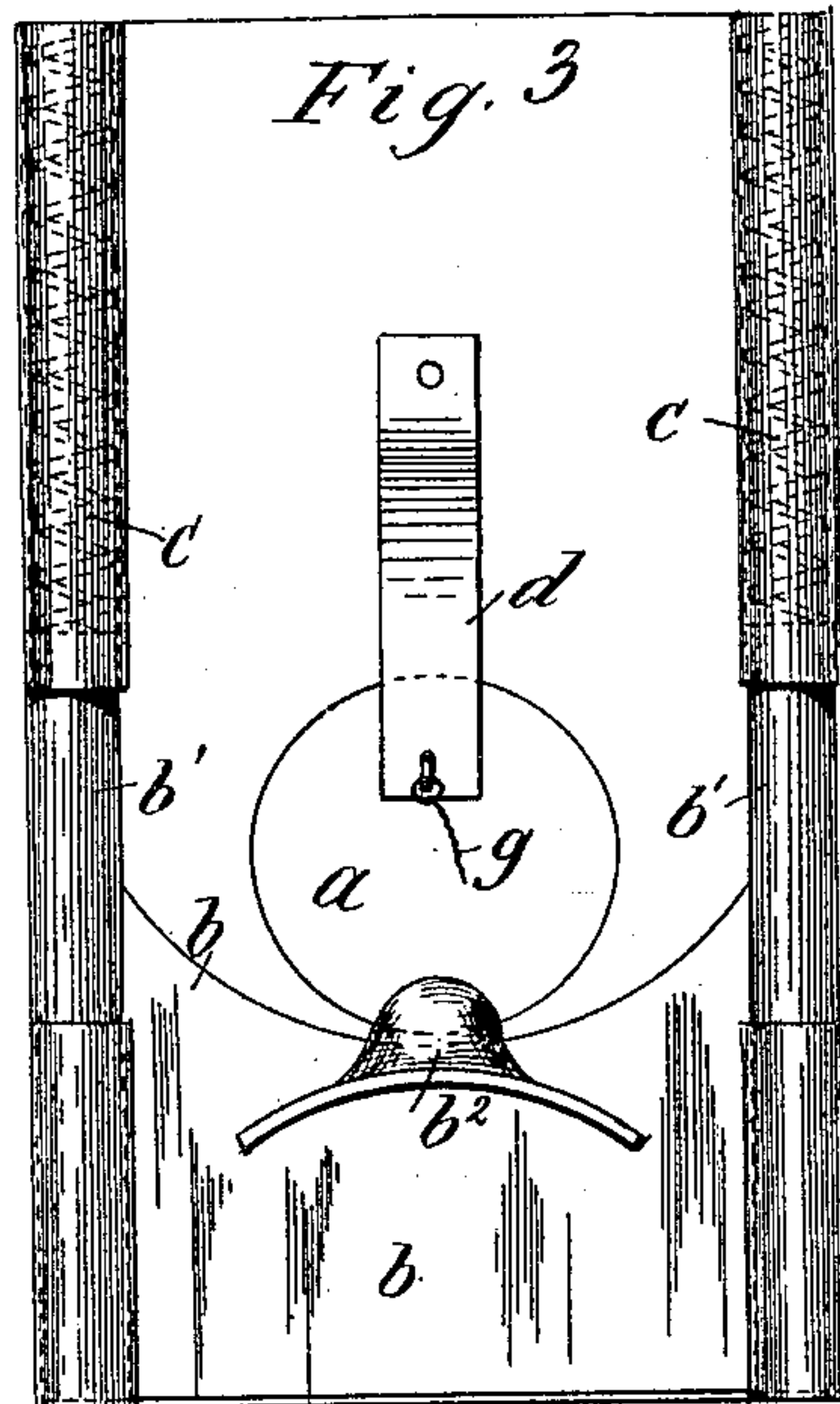
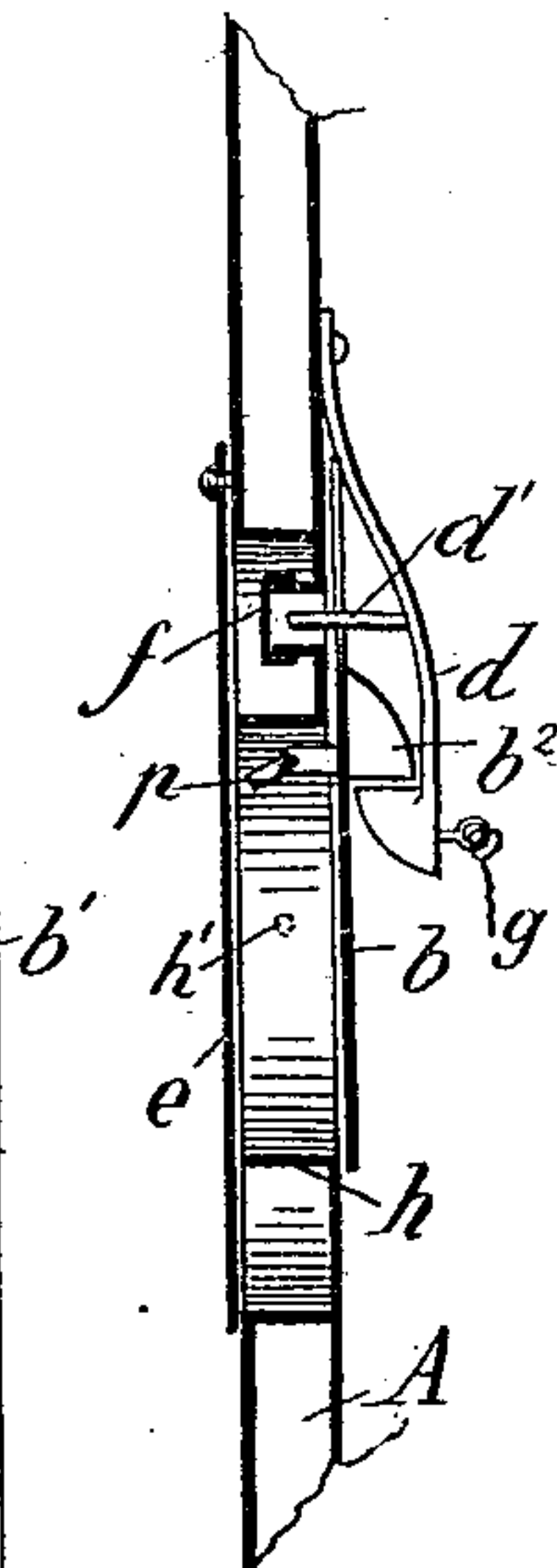


Fig. 4



Witnesses:
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R. Kraus

Inventor:
Carl Redl
by Heinrich J. J. J. J.

UNITED STATES PATENT OFFICE.

CARL REDL, OF VIENNA, AUSTRIA-HUNGARY.

DEVICE FOR INDICATING LIFE IN BURIED PERSONS.

SPECIFICATION forming part of Letters Patent No. 371,626, dated October 18, 1887.

Application filed March 16, 1887. Serial No. 231,212. (No model.)

To all whom it may concern:

Be it known that I, CARL REDL, a subject of the Emperor of Austria-Hungary, and a resident of Vienna, Austria-Hungary, have invented a new and useful Device for Indicating Life in Buried Persons, of which the following is a specification.

This invention relates to a safety device and alarm apparatus applied to coffins for the use and saving of such persons as may be buried while only apparently dead. It may be constructed in two different modifications, accordingly as the coffin is placed under the earth or in a vault. In the first modification the coffin is provided with an opening, over which may be placed an air-pipe. This opening and also that at the upper end of the air-pipe are closed up by a hinged or sliding plate, which may be opened by the movement of the buried person, so that fresh air may enter into the coffin. At the same time an electric current is closed by opening the plates, which current actuates an electric alarm apparatus, (either situated in a casing above the air-pipe or in any other suitable place.) If the coffin is situated in a vault or in a sarcophagus the air-pipe (of much less length) is placed upon an opening in the cover of the same, and a flexible (or articulated) joint is arranged between the closing device of the coffin and that of the air-pipe. The alarm apparatus is in both cases the same.

Figure 1 represents a vertical section of such a safety-coffin. Fig. 2 is a view (from the interior of the coffin) of the shutting device when closed; Fig. 3, when opened. Fig. 4 is a longitudinal section of the same, showing the closed cover and the catch device. Fig. 5 represents a vertical section of the same, showing the guide of the cover. Fig. 6 represents the cover, seen from above. Fig. 7 is a vertical section of the top of the air-pipe, the cover being opened. Fig. 8 represents, in a larger scale, the contact device for the electric alarm apparatus. Figs. 2 to 7 are shown on an enlarged scale.

The coffin A, Fig. 1, is provided with an opening, *a*, which may be closed with a cover or slide-plate, *b*. This cover carries on every side a tube-shaped guide-piece, *b'*, Figs. 2, 3, and 5, which slides in a suitable guide fixed to the coffin. Any ordinary means of guiding

may, however, be employed. A spring, *c*, (spiral spring or volute spring,) inclosed in a casing, presses against each end of the tubular guide-piece *b'* and has the tendency to remove the cover *b* from the opening *a*. This is prevented by a spring-catch, *d*, the nose of which catches behind the projection *b²* on the cover or slide-plate *b*. As can be seen in Fig. 4, after removing the cover *c* the slide-plate *b* (or the opening *a*) is disclosed, and on unscrewing the safety-cap *f* and pressing down the pin *d'* the nose *n²* is disengaged from *d* and the slide-plate *b* is removed by the springs *c* from the opening *a*. The same is effected by pulling at the cord or chain *g*.

The opening *a* is surrounded by a short tubular rim, *h*, Figs. 4, 5, 6, which is provided with two pins, *h'*. The air-pipe B is put upon this tubular rim *h*, so that the two pins *h²* enter into two slots on the lower edge of the same and prevent it from turning.

The air-pipe extends to a suitable height above the tomb and ends in a sloping top piece, which may be closed by a cover, *i*. The cover *i* is provided with a catch-nose, *i'*, which may engage (when the cover is closed) with a catch device, *k*. When the safety-cap *l* is unscrewed, one may press upon the pin *k'* of the spring-catch *k*, whereby the connection between *i'* and *k* is disengaged. The cover is opened by means of a weight, *m*, (or a spring,) which is suspended on a chain or cord, *m'*, passing over pulleys *m²* *m³*.

The opening of the cover may be facilitated by a spring, *n*, which presses against the cover *i*.

The catch device *k* is connected with a rod or wire, *o*, or by any other suitable means, to the pin *p*, Figs. 4 and 6, which is hinged on the cover or slide-plate *b*. When the apparently dead person awakes and pulls the cord *g*, the cover *b* opens, as already stated. By the movement of the plate *b* the wire or rod *o* is drawn downwardly, the catch or trigger *k* is disengaged, and the cover *i* opens, so that fresh air may enter. The flange of the cover may be provided with packing material, such as a rubber ring or the like.

In order to have also an audible signal I employ an electric alarm apparatus. An electric contact is produced at the moment when the cover *i* is opened. Fig. 8 represents this contact device on an enlarged scale. The cover *i* is pro-

vided with a pin or projection, i^2 , which projects through a slit or opening in the flange B' and bears on a knob, q' , of non-conducting material, (ivory, ebonite, &c.,) which is secured to a metal spring, q . The conducting-wires pass to the two terminals r and s . The latter is secured to the metal spring q , which rests upon an insulating-plate, t . When the cover opens, the projection i^2 ceases to press on the knob q' , and the current passes from the terminal r , through the metal plate u and spring q , to the second terminal, s . When the cover is closed the projection i^2 passes on the knob q' , so that the spring q leaves the metal plate u , and the current is interrupted.

The electric circuit comprises a battery, C , of any suitable construction, and also an alarm, D , (also of any suitable construction.) C and D may be situated in a casing, E , over the air-pipe or in the watch-room.

It is understood that the coffin, air-pipe, appurtenances, and casing E may be made of any suitable material in any ornamental decoration. One may also employ several openings in the coffin and several air-pipes. The first cover or slide-plate may be applied to the lower part of the air-pipe instead of on the coffin.

I claim, in an apparatus for the saving of apparently dead and buried persons—

1. The combination, substantially as hereinbefore described, of the air-pipe B , cover i , weight m , chain m' , catch device $i'k$, wire o , slide-plate b , catch device b^2d , springs c , and cord g , substantially as described.

2. The combination, with tube B and cover i , of the wire o , catch device $i'k$, projection i^2 , knob q' , metal spring q , battery C , connectors rs , and insulating-plate u , substantially as and for the purpose set forth.

3. The combination, with the coffin A and slide-plate b , of the springs c , catch device b^2d , cord g , air-pipe B , cover i , weight m , chain m' , catch device $i'k$, and wire o , substantially as described.

4. The combination, with the coffin A , of the slide-plate b , springs c , catch device b^2d , cord g , air-pipe B , cover i , weight m , catch device $i'k$, wire o , a projection, i^2 , knob q' , metal spring q , connectors rs , insulating-plate u , battery C , and alarm D , substantially as and for the purpose set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CARL REDL.

Witnesses:

EDMUND JUSSEN,
OTTO SCHEFFER.