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G. E. DUDLEY.

SURGICAL APPLIANCE.

(Application filed Dec. 7, 1898.)

(No Model.)

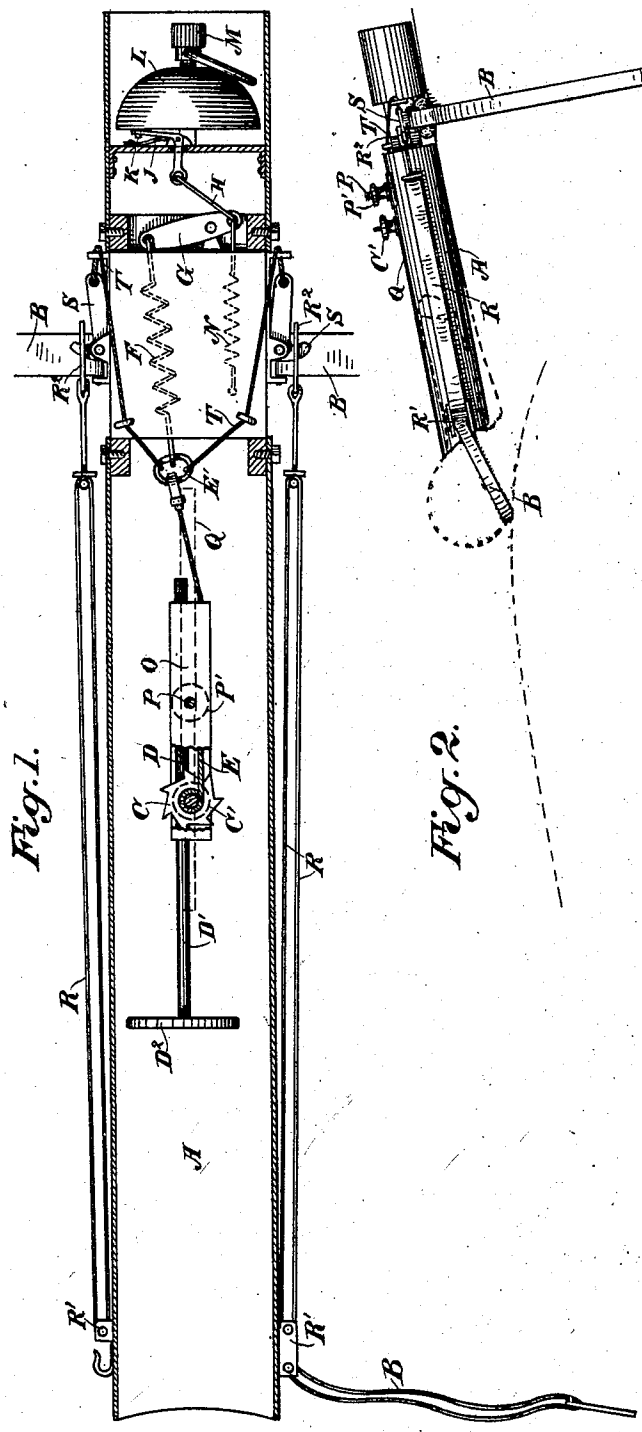

Fig. 1.

Fig. 2.

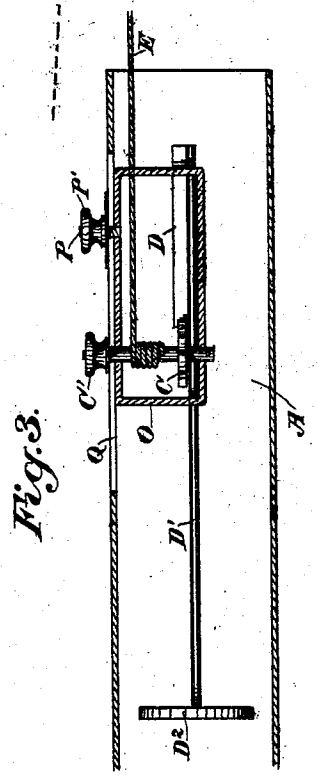

Fig. 3.

Witnesses,
H. T. Sperry
H. F. Ascheck

Inventor,
George E. Dudley
By Dewey Strong & Co.
Attys

UNITED STATES PATENT OFFICE.

GEORGE E. DUDLEY, OF OAKLAND, CALIFORNIA.

SURGICAL APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 622,333, dated April 4, 1899.

Application filed December 7, 1898. Serial No. 698,497. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. DUDLEY, a citizen of the United States, residing in Oakland, county of Alameda, State of California, have invented an Improvement in Surgical Appliances; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to the general class of surgical appliances which are adapted to be fitted to the person of the patient in such a manner as to protect the wearer from the ill effects of seminal weakness.

It consists of a tube so constructed as to receive the organ or member and attachments by which the tube is retained in proper relationship with the body. Within or connected with the tube is an alarm and an intermediate mechanism, with a contact piece or plate which will be pressed upon and the alarm set off whenever an enlargement or erection of the organ takes place.

It also comprises details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a longitudinal section of the tube. Fig. 2 shows its application. Fig. 3 is a section at right angles to Fig. 1.

The object of my invention is to provide a means for giving warning and awakening the person suffering from the peculiar weakness and who is wearing the appliance when asleep.

A is a tube of sufficient size and length to receive the member and having straps B and fastenings by which it may be attached to the person so that it lies along the abdomen, the member being inserted into the open lower end, within which it normally remains. Within the tube is a ratchet-wheel C and a pawl D, adapted to engage the teeth of the ratchet and hold it at any desired point. Around the shaft of the ratchet-wheel is coiled a cord E, which connects at the upper end with any suitable elastic spring F. This spring in turn connects with one arm of a lever G, and the opposite end of this lever is connected by a cord H with a spring-pressed detent or latch J, which is so contrived that when the cord E is wound upon the shaft of the ratchet-wheel C and a tension brought upon the lever G the detent or latch J will engage with a stop K, and thus prevent the vibration of a bell or alarm L, which is fixed in the upper part of or otherwise connected with the tube A. This alarm is of any usual or well-known form and construction, being actuated by a spring, and it may be wound up by a thumb-piece or key M after the other parts have been properly set, as will hereinafter be described, and when thus wound up the detent or latch J will retain it thus set until it is released by the action of the other parts of the mechanism.

The pawl D is fixed to a longitudinally-slidable stem D′, having at the lower end a contact-plate D^2, and this contact-plate stands in line but out of contact with the member in the lower part of the tube A when the member is in its normally-relaxed condition.

When the member becomes rigid or extended by an erection, it will press upon the contact-plate D^2 and will push the stem D′ and disengage the pawl D from its engagement with the ratchet-wheel, thus releasing the latter and allowing the spring connection F to unwind the cord E. This in turn relaxes the pull upon the end of the lever G, and a spring N, connected with the opposite end of this lever, pulls it down, and through the cord H it pulls the detent or latch J out of engagement with the stop K, and thus releases the alarm, which will then be allowed to operate and will awake the sleeper to that self-control which will relieve him from the consequences which would otherwise occur.

The ratchet-wheel C is preferably journaled in a frame O, which is adjustable within the tube A by means of a screw bolt or bolts P and clamping-nut P′. This bolt is fixed to the frame O and extends through a slot Q in the side of the tube. By loosening the nut the frame may be moved within the tube, and with it the ratchet-wheel, the pawl D, and the contact-plate D^2, so that the latter may be adjusted to be within reach of any-sized member when the latter becomes extended by excitation.

In order to increase the action of the movable parts of the apparatus and produce such a shock as will surely awaken the sleeper, elastic straps R have their lower ends fixed to the sides of the tube A, as shown at R′.

The opposite ends have links R^2, which may be hooked upon or engaged with the outer arm of bell-crank levers S, which are fulcrumed to the sides of the tube near the upper end. Cords T extend from the opposite ends of these levers and connect with the cord E or with a ring or fixture E' common to both.

When the apparatus is to be set for use, the ratchet-wheel C is turned by means of a knob C', fixed upon the end of its shaft, where the latter projects through the slot Q in the tube A. This winds the cord E upon the ratchet-wheel shaft and draws the ring or fixture E' down, thus bringing a tension upon the cords T, which will hold the bell-crank levers S with their long arms against the sides of the tube, while the short arms project so that the elastic straps R may be engaged with them and thus exert a pull upon the cords T.

The device being held upright when the ratchet is turned, the pawl D will engage the ratchet by gravitation, and will thus hold it at any point to which it may be turned. The tension upon the spring F, and the consequent pull upon the lever G, overcomes the tension of the spring N and relaxes the pull upon the cord H and relieves the detent or latch J, which then engages the stop K, so that the alarm may be wound up and set.

The device being secured to the person and the member in position within the tube, any extension or enlargement of the member will cause it to press upon the contact-plate D^2 and disengage the pawl D, thus releasing all the acting parts, as previously described.

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

1. In a surgical appliance of the character described a tube adapted to receive the organ or member in the lower end, means for securing it to the body, an alarm and detent therefor, a contact-plate movable by the expansion of the member and mechanism between the contact-plate and alarm whereby the detent is released and the alarm operated.

2. In a surgical appliance of the character described a tube adapted to receive the organ or member within the lower end, an alarm and a detent therefor, a contact-plate movable by the extension of the member, a pawl connected therewith, a ratchet with which it engages, and mechanism intermediate between it and the detent actuated by the release of the ratchet.

3. In an apparatus of the character described a tube adapted to receive the organ or member in the lower end, a ratchet-wheel journaled and turnable within the tube, a pawl engaging the ratchet and a contact-plate connected with the pawl in line of movement of the member so as to disengage the pawl from the ratchet, a cord and means for winding it upon the shaft of the ratchet, an alarm and detent, a spring-pressed holding-latch therefor, an interposed controlling-lever and a spring connecting the lever with the cord which is wound upon the ratchet-shaft.

4. In an apparatus of the character described, a tube adapted to receive the organ or member in the lower end, an alarm and detent therefor, a winding-ratchet and shaft and retaining-pawl, mechanism intermediate between the ratchet and the alarm-detent, a controlling-cord which is wound upon the ratchet-shaft, a contact-plate movable with the pawl, and means for adjusting said plate to different positions within the tube.

5. In an apparatus of the character described, a tube, a winding-ratchet, holding-pawl and contact-piece, with means for adjusting the parts within the tube, an alarm and detent therefor, a tilting lever fulcrumed between the alarm and the pawl and ratchet and a spring acting upon the lever to normally release the detent, a cord connected with the opposite end of the lever with an elastic connection, and means for winding the cord upon the ratchet-wheel shaft, whereby its tension overcomes that of the tilting-lever spring.

6. In an apparatus of the character described, a tube, a winding-ratchet, holding-pawl and contact-plate, an alarm and detent therefor, a spring-pressed tilting lever controlling the detent, and an elastic winding connection between it and the ratchet-shaft, bell-crank levers fulcrumed to the sides of the tube with cords connecting their long arms with the cord which winds upon the ratchet-shaft, and elastic devices with disengaging connections with the short arms of the bell-crank levers, substantially as described.

In witness whereof I have hereunto set my hand.

GEORGE E. DUDLEY.

Witnesses:
S. H. NOURSE,
GEO. H. STRONG.