No. 720,310. PATENTED FEB. 10, 1903.

A. WYSS-BAUMGARTNER.

APPARATUS FOR LOWERING PERSONS OR DEAD-WEIGHTS.

APPLICATION FILED OCT. 27, 1902.

NO MODEL.

FIG. 1

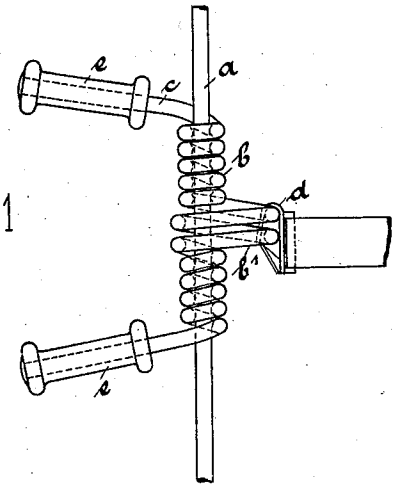
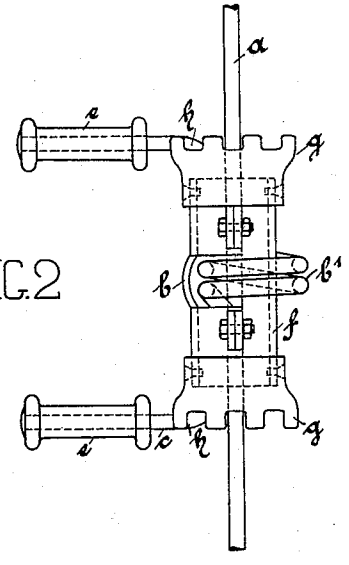


FIG. 2



Witnesses:
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALFRED WYSS-BAUMGARTNER, OF SOLOTHURN, SWITZERLAND.

APPARATUS FOR LOWERING PERSONS OR DEAD-WEIGHTS.

SPECIFICATION forming part of Letters Patent No. 720,310, dated February 10, 1903.

Application filed October 27, 1902. Serial No. 129,025. (No model.)

To all whom it may concern:

Be it known that I, ALFRED WYSS-BAUMGARTNER, a citizen of the Republic of Switzerland, and a resident of Solothurn, Switzerland, have invented certain new and useful Improvements in Apparatus for Lowering Persons or Dead-Weights, of which the following is a specification.

The object of this invention is a device by means of which persons and dead-weights may be lowered from a height in a building or other elevated position, and it provides a means of escape from a building on fire.

The accompanying drawings show two methods of constructing my said apparatus.

Figure 1 is a view of the apparatus in its simplest form. Fig. 2 is a view of the apparatus provided with a casing inclosing a portion thereof.

In the drawings, *a* denotes a wire which is to be considered as attached to, say, the beam of a roof, to a window-sill, or other suitable and secure object. Around this main wire is closely wound several times, as shown at *b*, the wire *c*, so that by friction of the latter on the main wire it will remain fixed at any part of the said main wire. The middle windings *b'* of the wire *c* are, however, made more open or looser around the main wire than the other turns or windings, so that they stand out therefrom instead of fitting closely to it, as do the other turns or windings. A portion of the wire *c* at each end thereof is not wound around the main wire, and these free ends of the wire *c* are each provided with a hand-ring, a cord, or other means which a person may grasp in order to loosen or tighten the hold of the wire *c* on the main wire, thus regulating the friction according to the burden suspended at *d*, as hereinafter explained, and causing the said wire *c* to descend or slide along the main wire or to remain stationary at any point thereon. It is evident that the loosening of the pressure is effected by drawing the ends of the wire *c* away from each other.

The construction shown in Fig. 2 of the drawings is one in which the spiral windings *b* of the wire *c* are inclosed in a case or cylinder made in parts, joined by screws, in such a manner that the looser windings protrude outside the said casing, one part of the said casing being above and the other part below these looser windings at or about the middle of the wire *c*. The unwound end portions of the wire *c* extend outside of the casing, which is provided with a toothed crown *g* at each end, so that the ends of the wire *c* or attachments thereto passing between the teeth of the crown they may be held more or less apart and in the desired position to regulate the friction and control the motion of the said wire on the main wire in the manner hereinbefore described.

The apparatus can be used for saving life or property from a burning building. A fireman or rescuer fastening himself to the sliding wire by means of a swivel spring-hook or other device, as shown at *d*, attached to the wire *c* in the looser windings *b'*, seizes the handles or rings *e*, whereby he can cause himself to be lowered with more or less rapidity and can stay the descent at any moment by regulating the friction, as hereinbefore described.

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

1. An apparatus for lowering persons and dead-weights, the said apparatus consisting of a main wire which is adapted to be made fast at one end to any fixed object and around which another wire is spirally wound, the end portions of the latter wire being left free to be drawn more or less apart from one another and being provided with cords, rings or other attachments to facilitate the drawing of the said end portions more or less widely apart from one another, thereby increasing or lessening the friction, so that the said wire may be caused to remain stationary at any point on the main wire or to slide thereon, substantially as described.

2. An apparatus for lowering persons and dead-weights, said apparatus consisting of a main wire adapted to be fastened at one end to a fixed object, another wire wound thereon with several turns, these spiral windings closely fitting to the main wire, except as regards a few of the turns, about midway, which are loosely wound around the main wire to permit a hook or other suspensory or holding device to be attached thereto, the end portions of the wire thus wound upon the main wire being left free to be drawn more or less apart

from one another and being provided with cords, rings or other attachments to facilitate the drawing of the said end portions more or less widely apart, thereby increasing or lessening the friction so that the said wire may be caused to remain stationary at any point on the main wire, or to slide thereon, substantially as described and as shown in the accompanying drawings.

3. An apparatus for lowering persons or dead-weights, said apparatus consisting of a main wire adapted to be fastened to a fixed object, another wire inclosed partly within a casing made in two parts, the wire, so inclosed, being spirally wound around the main wire, the central windings being of greater circumference than the other windings which fit close to the main wire, the looser windings, namely those of greater circumference, extending outside the casing, that is to say between the upper and lower part of the latter, the said casing being provided, above and below, with toothed or indented crowns, between the teeth of which the ends of the wire, which is wound around the main wire, can be laid and held at desired distances from one another, for the purpose of regulating the tension or friction, substantially as described and as shown in the accompanying drawings.

In testimony whereof I have hereunto set my hand in presence of two witnesses.

ALFRED WYSS-BAUMGARTNER.

Witnesses:
ERNST PFESTROFF,
EDGAR GILLON.