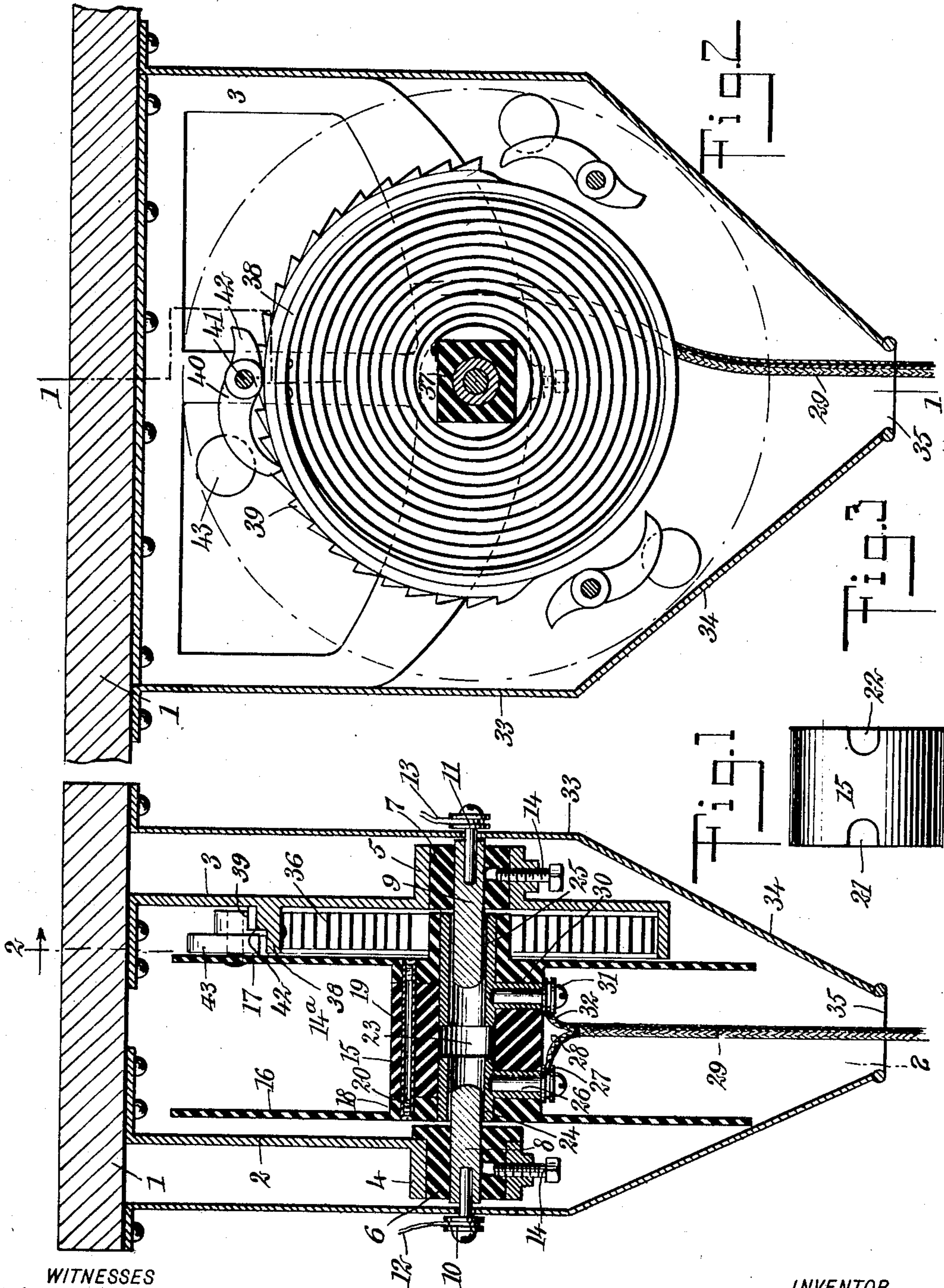


W. O. REW.
ELECTRIC CORD RETRIEVER.
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ELECTRIC-CORD RETRIEVER.

No. 913,432.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM OSBORN REW, a citizen of the United States, and a resident of Eureka, in the county of Humboldt and State of California, have invented a new and Improved Electric-Cord Retriever, of which the following is a full, clear, and exact description.

This invention relates to electric cord retrievers and adjusters, such as used for holding electric light cords and adjusting the length thereof when desired.

The construction comprises a reel or spool upon which the cord is wound, and the invention resides especially in the construction of the reel, which facilitates the attachment of the electric wires and the arrangement for conducting the current to them through the device.

The invention resides also in the mechanism for controlling the rotation of the reel and locking the same so as to adjust the length of the pendent cord.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical section through the device taken on the line 1—1 of Fig. 2; Fig. 2 is a vertical section taken through the device on the line 2—2 of Fig. 1; and Fig. 3 is a side elevation of a sleeve which constitutes a part of the body or hub of the spool or reel.

Referring more particularly to the parts, 1 represents a base plate or block upon which the metal parts of the device are attached. At opposite points on the block I provide hangers 2 and 3, which are provided with feet as indicated, which are fastened to the base as shown. The hanger 2 is formed below into a box or bearing 4; the hanger 3 is similarly formed below into a box or bearing 5, and these bearings are provided respectively with bushings 6 and 7, of fiber or similar non-conducting material. In the bushings 6 and 7 gudgeons 8 and 9 are driven tight, and these gudgeons are formed of metal. In the outer ends of these gudgeons binding posts 10 and 11 are provided, to which the electric wires 12 and 13 are attached. As

indicated most clearly in Fig. 1, the bushings 6 and 7 are held in place by removable set screws or bolts 14 which screw into the lower side of the boxes but do not extend inwardly sufficiently to touch the gudgeons 8 and 9. In this way the gudgeons are effectively insulated from the hangers. The gudgeons project inwardly toward each other in axial alinement, and support between them a spool or reel 14^a. The hub of this reel is formed of a sleeve 15 of insulating material, which sleeve is attached between disks 16 and 17, the said disks having bosses 18 or naves of the same diameter as the sleeve 15, the parts being attached so that the bosses seat against the ends of the sleeve as indicated. These parts are held together by a tubular fastening 19 which extends longitudinally through them, the ends of the tube being provided with machine screws 20 which are countersunk into the disks from the outer side, and which screw into the ends of the tubular member 19 as shown. The sleeve 15 is shown in detail in Fig. 3. At its ends it is provided with recesses 21 and 22 which consist simply of notches disposed in longitudinal alinement with each other.

The reel is formed with a central bore which extends continuously and of the same diameter through the disks 16 and 17 and the sleeve 15. In the ends of this bore I provide metal thimbles 24 and 25 respectively. The thimble 24 is provided with a tubular laterally projecting nipple 26 which is adapted to fit into the notch 21, as indicated in Fig. 1. This nipple is provided with a binding post 27 at which one of the electric wires 28 from the electric cord 29, is attached. The thimble 25 is similarly provided with a tubular nipple 30, which is received in the notch 22, and this nipple is likewise provided with a binding post 31 to which the other electric wire 32 is attached.

The reel and the hangers are completely inclosed in a case 33, which has a reduced lower portion 34 and an opening 35 below, through which the electric cord 29 passes downwardly as shown.

I provide a spring 36 which tends to rotate the reel in a direction to wind the cord 29 thereupon, as will be readily understood. In order to mount this spring, the disk 17 is provided on its outer side with a square hub 37 as indicated in Fig. 2, and to the side of this hub the inner end of the spring is at-

tached, the spring being of spiral form as shown. The outer end of the spring is rigidly attached to a circular rim or flange 38 which is formed on the hanger 3. The portion of this flange or rim 38 which lies near the disk 17, is smooth so as to present a rubbing face when the moving parts exert a braking action upon it, as will be described hereinafter.

The inner portion of the flange or rim, but only on the upper side thereof, is formed with inclined teeth 39, which constitute a ratchet wheel or segment. On the outer face of the disk 17 near the rim 38, a plurality of pawls 40 are attached by pivot bolts 41. The bodies of these pawls are curved outwardly, and are adapted to engage with the teeth 39 as indicated at the upper portion of Fig. 2. They are also provided with rearwardly projecting tails 42 of reduced thickness, and the inner edges of these tails are adapted to come against the rubbing surface of the rim 38, as indicated in Fig. 1. Near their outer ends, the pawls are provided with counterweights 43, which are adapted to fly outwardly when the reel rotates rapidly.

It will be evident from an inspection of Fig. 1, that an insulated electric connection is made from the wire 12 through the gudgeon 8, thimble 24, through the wire 28. A similar insulated electric connection is made from the wire 13 through the gudgeon 9, thimble 25, through the wire 32. It should be understood that in practical use, the cord 29 is coiled about the hub of the reel, and that the spring 36 tends to rotate the reel in the direction which will coil the cord upon it. The spring, however, is prevented from completely coiling the cord upon it by means of the pawls 40 and the teeth 39.

It will be evident from an inspection of Fig. 2 that the teeth 39 present abrupt faces on the right side, which always engage one of the pawls as indicated, when the reel is not in motion.

When it is desired to adjust the cord to a different length, the cord is pulled down and suddenly released, whereupon the spring instantly gives the reel a high velocity of rotation. This velocity acting upon the weights 43 throws the forward ends of the pawls outwardly, and maintains them out of engagement with the teeth 39. In this way they offer no resistance to the rotation of the reel until its motion is checked by one's hand. As soon as this occurs, that one of the pawls which is disposed uppermost, will be forced into engagement with the teeth by gravity acting upon its weight, and the reel will then be checked against further movement.

When the reel is rotating at a high speed, the outward movement of the weights 43 brings the tails 42 of the pawls inwardly, so

that they are forced against the rubbing face of the rim 38, and in this way a desirable braking action or frictional resistance is offered to the rotation of the reel. In this way the tails not only operate as stops to limit the outward movement of the pawls, but they prevent the reel from running away or racing.

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

1. A reel for an electric cord comprising, in combination, a pair of disks, a sleeve connecting said disks, thimbles set in the centers of said disks, and having laterally projecting nipples having means for attaching the electric wires thereto, the body of said reel having recesses formed at the point of junction between said sleeve and said disks through which said nipples pass.

2. A reel for an electric cord comprising, in combination, a sleeve, disks having bosses seating against the ends of said sleeve, a fastening extending longitudinally through said sleeve and said disks and holding the same together, said reel having recesses formed at the meeting surfaces of said bosses with said sleeve, thimbles mounted axially in said reel and adapted to receive gudgeons, said thimbles having nipples projecting laterally through said recesses and having binding posts to receive the electric wires.

3. A reel for an electric cord comprising, in combination, a sleeve having recesses in the ends thereof, disks having bosses seating against the ends of said reel, means for securing said disks to said sleeve, thimbles received in the centers of said disks, said thimbles having nipples projecting laterally through said recesses and having binding posts for attaching the wires thereto.

4. In an electric cord retriever, in combination, a reel adapted to have the electric cord wrapped thereupon, means tending to rotate said reel in a direction to wind up said cord, a fixed rim having circumferentially disposed teeth on a portion of the periphery thereof, pawls pivotally mounted on said reel and adapted to engage said teeth, said pawls having counterweights whereby they become disengaged from said teeth when said reel rotates at a high speed.

5. In an electric cord retriever, in combination, a reel mounted rotatably and adapted to have an electric cord wound thereupon, a spring tending to rotate said reel in a direction to wind up said cord, a rim having ratchet teeth on the upper portion thereof, pawls pivotally mounted on said reel and adapted to engage said teeth, said pawls having tails adapted to engage said rim to offer a frictional resistance when said reel rotates at a high speed.

6. In an electric cord retriever, in combination, a reel adapted to have an electric

cord wound thereupon, a spring tending to rotate said reel to wind up the cord, a fixed rim having teeth on a portion thereof on the upper side and presenting a rubbing
5 face beyond said teeth, pawls pivotally mounted on said reel adapted to engage said teeth, and counterweights carried by said pawls, said pawls having tails opposite said counterweights and adapted to engage said

rubbing face when said weights fly out- 10
wardly under the action of centrifugal force.

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

WILLIAM OSBORN REW.

Witnesses:

E. J. O'NEILL, Jr.,

W. E. STONE.