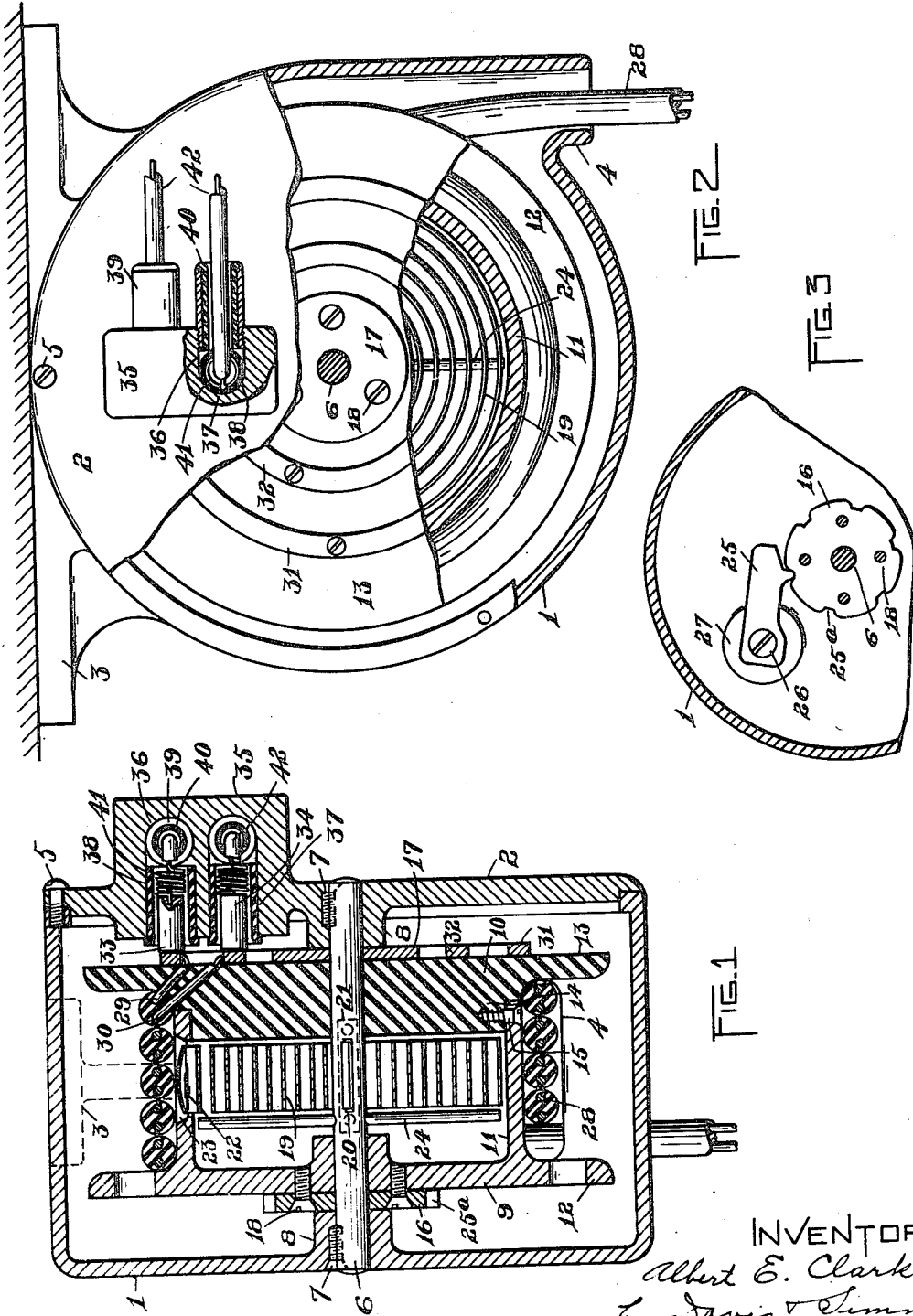


A. E. CLARKE,
REELING DEVICE FOR ELECTRICAL CONDUCTORS.
APPLICATION FILED MAY 10, 1918.

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1,288,511.



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UNITED STATES PATENT OFFICE.

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REELING DEVICE FOR ELECTRICAL CONDUCTORS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALBERT E. CLARKE, a citizen of the United States, and resident of Fairport, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Reeling Devices for Electrical Conductors, of which the following is a specification.

The present invention relates to reeling devices for electrical conductors and more particularly to the type in which the conductor is wound about a spring reel or drum for the purpose of obtaining a length of cord to correspond with the needs of the user, an object of this invention being to provide a compact structure which will be inexpensive to manufacture and will entirely inclose all contacts and operating parts while permitting the contacts to be readily reached without destroying the mounting of the drum or reel and the controlling parts of the latter.

To these and other ends the invention consists of certain parts and combinations of parts all of which will be hereinafter described, the novel features being pointed out in the appended claims.

In the drawings:—

Figure 1 is an axial section through a reeling device constructed in accordance with this invention;

Fig. 2 is a side view with parts in section at right angles to the section shown in Fig. 1; and

Fig. 3 is a detail view of the pawl and ratchet device for holding the reel in the adjusted position.

According to the embodiment of the invention herein illustrated, there is provided an inclosing casing comprising preferably two sections 1 and 2. The section 1 is a cylindrical cupped member and has an attaching plate or flange 3 formed integrally therewith by which the casing is secured to a suitable support. A throat 4 leads tangentially from the section 1 in a downward direction for the passage of the conductor cord as will be explained. The section 2 is in the form of a plate closing the open side of the cupped section and being removably secured to the latter by screws 5. A shaft 6 connects the two sections and is secured to and held against turning in both sections by screws 7 which engage both the shaft and the casing sections and are operable or removable from the exterior of the casing. If

the screw in the section 2 is removed the shaft will be still supported in the section 1 so that the section 2 may be removed without removing the shaft 6 from section 1. The inner faces of the sections are formed with bosses 8 about the shaft 6, and between these bosses the reel or drum is mounted to turn on the shaft.

The reel or drum in this instance is formed of two sections 9 and 10. The section 9 is a casting having a hollow rim portion 11 and a flange portion 12, while the section 10 is formed of non-conducting material such as wood, and has a flange portion 13 and a portion 14 fitting slightly in the hollow rim portion 11 and held therein by screws 15 passing through the rim portion 11 into the portion 14. Two steel disks or plates 16 and 17 are secured to the opposite sides of the reel or drum by screws 18 and act as bearings for the reel. Within the drum or reel a spring 19 is mounted, this spring being volute in form and having one end bent and fitted into a slot 20 in the shaft 6 where it is held by a plate 21 secured at opposite ends to the shaft. The other end of the spring 19 is bent or deflected at 22 and enters a slot 23 in the rim portion 11, the connection being such that, should the spring disengage with the reel, the spring end 22 will readily reënter the slot 23 when said end is opposite the slot. One side of the spring lies close to the portion 14 of the reel while on the other side of the spring two rods 24 are provided to maintain the spring in a flat condition.

A pawl and ratchet may be provided for maintaining the spring drum in its shifted position. In this instance, the pawl 25 is pivoted at 26 to a boss 27 which projects from the inner face of the casing section 1. This pawl coöperates with the walls of notches 25^a formed in the plate 16, the nose of the pawl and the walls of the notches being so formed that a quick action of the reel will cause the pawl to ride over the ratchet plate in either direction, but if the action of the reel is slow the pawl will interlock with the walls of the notches and hold the reel against rotation under the action of the spring in the reel.

About the reel a cord 28 is wound, said cord, in this instance, inclosing two conductors which lead to the terminal of the electric lamp or other device. The two conductors 29 and 30 are passed through

separate openings in the flange portion 13 to two separated annular contacts 31 and 32 which are secured to the non-conducting section 10 of the reel. With these annular contacts, two contacts 33 and 34 cooperate. The latter are mounted on the removable section 2 of the casing and to this end this section may be formed on its outer face with a projection 35 which is provided with two parallel bores 36 in one side intersecting two bores 37 leading from the inner face of the section. Nonconducting tubes or sleeves 38 are fitted in the bores 37, while nipples 39 are fitted in the bores 36 and have nonconducting sleeves 40 therein. Springs 41 press the contacts 33 and 34 against the contacts 31 and 32 and the wires 42 connect with these springs after passing through bores 37.

To lengthen or shorten the conductor cord 28 the latter is pulled to release the reel from the pawl 25 after which the cord is lengthened by pulling thereon, and is shortened by slacking. When the desired length is obtained, a slow movement of the reel will cause the ratchet to lock the reel.

The construction of the reel as a whole is not only durable in use, but it is inexpensive to manufacture, as its parts have been reduced to a minimum. All operating parts are inclosed yet it is possible to open the casing to inspect or repair the electrical contacts without removing the reel or disconnecting the conductor cord, the shaft for the reel being held supported by the cupped casing and the reel being supported on the shaft and held by the ratchet, when the wall or section 2 is removed.

What I claim as my invention and desire to secure by Letters Patent is:—

1. A reeling device comprising a casing

formed of two sections one of which has an attaching bracket, and the other of which is removably secured to the first named section, a shaft extending transversely of the dividing line between the two sections, means securing one end of the shaft to the section having the attaching bracket in order to sustain such shaft in operative position when the removable section is removed, a reel turning on said shaft and sustained thereon when the removable section is removed, two annular contacts on the side face of the reel opposed to the removable section of the casing, and two contacts carried by said removable section and cooperating with the annular contacts on the reel.

2. In a reeling device, a casing formed of two sections, one of which has attaching means and the other of which is removably secured to the first named section, a shaft extending transversely of the dividing line between the two sections, means securing one end of the shaft to the section having the attaching bracket in order to sustain such shaft in operative position when the removable section is removed, a reel turning on such shaft and sustained thereon when the removable section is removed; two annular contacts on the side of the reel opposed to the removable section of the casing, a pair of contacts carried by the removable section of the casing, a spring secured at one end to the shaft and at the other end to the reel, and a pawl and ratchet connection between the reel and the section of the casing with the attaching means so that the tension of the spring is maintained when the removable wall is removed.

ALBERT E. CLARKE.