

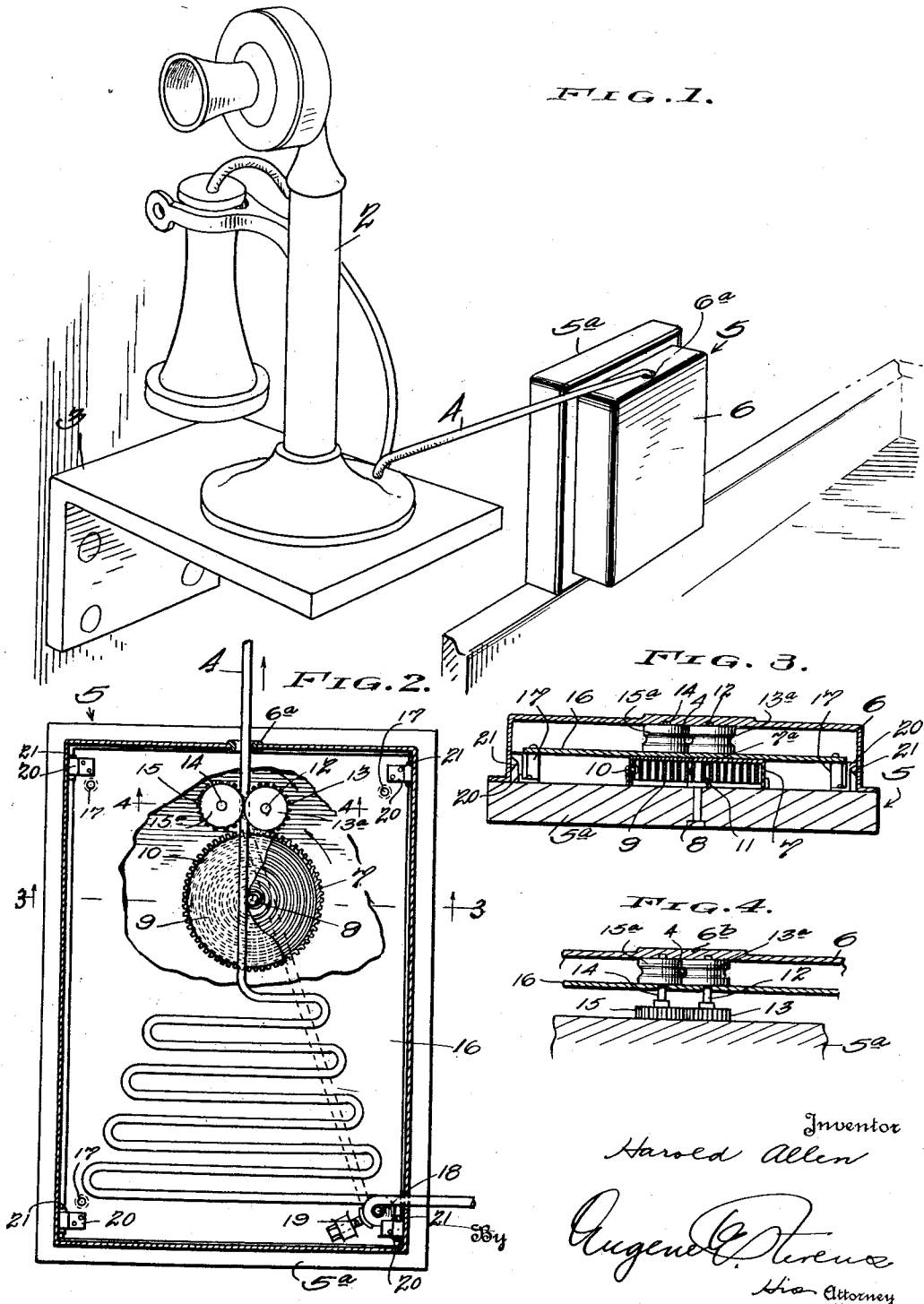
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TAKE-UP DEVICE FOR TELEPHONE, FLOOR LAMP, AND OTHER WIRES

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TAKE-UP DEVICE FOR TELEPHONE, FLOOR LAMP, AND OTHER WIRES

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My invention relates to improvements in take-up devices for telephone, electric lamp and similar wires or cords.

Briefly stated, the invention has for its primary object to provide a novel and improved device of this character which will effectually take up and accommodate the slack wire or cord of a telephone or floor lamp which usually reposes on the floor making an unsightly appearance.

A further object of the invention is to provide a device of this character which will be compact in form, simple in construction and which eliminates the necessity for a reel or spool, thus, effecting a great economy in space and simplifying the attachment of the device for use.

A further object of the invention resides in the provision of a device for the purpose specified which includes what might be termed a mechanism compartment, and another compartment separate therefrom for accommodating the loose wire so as to obviate any likelihood of the latter becoming caught in the actuating mechanism.

The invention also resides in certain novel features of construction, combination and arrangement of the various parts, and in certain modes of operation, all of which will be readily apparent to those skilled in the art upon reference to the accompanying drawing in connection with the detailed descriptive matter which follows.

It is to be understood that the drawing and this specification are directed to what now appears to be a preferred form of the invention. However, it will be obvious that the invention is susceptible of other mechanical expressions within the spirit and scope of the subject matter claimed hereinafter.

In the drawing, wherein the same reference characters have been used to designate the same parts throughout the several views,

Figure 1 is a perspective view illustrating a telephone and the application of my take-up device to the current supply cord,—the telephone shown being an extension form and the bell box being eliminated;

Figure 2 is a horizontal sectional view through the upper closure member, the parti-

tion being broken to expose the mechanism,—and one of the gears being shown partly broken and partly in section;

Figure 3 is a sectional view taken on the line 3—3 of Figure 2, and

Figure 4 is a sectional view taken on the line 4—4 of Figure 2.

Referring specifically to the drawing, numeral 2 denotes a telephone instrument which may be supported upon a shelf 3 and which has the current supply cord or wire 4 leading from a bell box, not shown,—it being understood that in the particular instance the telephone is an extension phone and that the bell box will probably be in another room.

The wire or cord 4 from the bell box, not shown, is lead into the receptacle portion of my take-up device 5 and which portion accommodates the slack wire,—it being noted that the cord leads out of the compartmented or receptacle portion of my take-up device through the eyelet or opening 6a to the telephone instrument.

Referring to Figures 2 and 3, my novel device comprises a base 5a which is adapted to be secured to the wall or any other convenient point adjacent the telephone instrument.

A removable, receptacle-like cover 6 is secured to the base and provides the inlet and outlet eyelets or openings for the wire 4. The openings 6a will preferably be in the form of notches cut in an edge wall of the member 6.

A cup-like gear 7 is journaled as at 7a upon the upper end of a fixed non-rotatable shaft 8, which is carried by the base 5a. A coil spring 9 is anchored to the cup wall, as at 10, and has its other end anchored, as at 11, to the fixed shaft 8,—the function of the spring 9 being to normally resist movement of the gear 7 in the direction of the arrow in Figure 2.

The gear 7 has peripheral gear teeth meshing with the teeth of a pinion 13 on a shaft 12 which is journaled in the base 5a,—such pinion 13 meshing with an adjacent pinion 15 on a shaft 14 likewise carried in the base 5a.

The gearing just referred to is maintained in operative relationship by means of a partition member 16 which is suitably carried and secured upon posts 17 as indicated in Figures 2 and 3,—such partition 16 dividing the space above the base 5 into two compartments of which the lower is the mechanism compartment and the upper the compartment for accommodating the loose wire, as indicated in Figure 2.

The upper ends of the shafts 14, as best shown in Figures 3 and 4, each carry a rubber or other friction roller,—these rollers being designated as at 13a, 15a, respectively.

The rollers are preferably provided with opposed peripheral grooves for impinging the wire 4 which is adapted to be passed therebetween at a point adjacent the outlet notch 6a through which the wire extends to the telephone instrument 2.

As will be noted from an inspection of Figures 3 and 4 the closure member 6 has a thickened portion 6b providing bearings for the upper ends of the shafts 12, 14.

The wire at the point of entry or adjacent thereto is looped around a post 18 carried by the base 5a and which extends up through the partition 16. A clamp member 19 which may partake of any desired form is carried by the partition 16 and adapted to be engaged with the cord about the post 18 to hold the same against shifting. The intermediate length of wire or cord between the post 18 and the cooperating rollers 13a, 15a will assume the approximate sinuous form depicted in Figure 2, but since there is no gearing or other obstructions above the partition 16 the wire may simply lie naturally in any form upon such partition without any likelihood of tangling with operating parts.

The closure member 6 will be detachably maintained upon the base 5 by the cooperating lug and spring latch members 21, 20 of which the latter is carried by the base 5a and the former by the wall portion of the closure 6. Obviously, the latch member 20 will yield under the cam action of the member 21 when the closure is put in place or pulled outwardly.

From the foregoing description taken in connection with the accompanying drawing, the operation of the device, it is believed, will be manifest. For instance when the telephone instrument is lifted from the shelf 3 and pulled outwardly, the coacting rollers 13a, 15a will be caused to rotate by reason of the frictional engagement of the same with the cord 4. Manifestly, such rotation, through the gearings 13, 15, 7 will place the spring 9 under tension. When the instrument is again placed upon the shelf 3 the spring 9 will rotate the gear 7 in a clockwise direction as viewed in Figure 2, driving

the rollers 13a, 15a in a direction to pull the wire 4 inwardly and to the compartment.

The device eliminates entirely the unsightly appearance that loose telephone cords or floor lamp cords create when lying loose upon or dangling above the floor. As stated, the take-up device 5 may be located at any convenient point and may be made in even smaller size than the actual size shown in Figures 2 and 3. Also, it will be evident that the device may have any desired shape being susceptible of incorporation for instance in the base of a lamp or beneath the shelf or table upon which a telephone is mounted.

It is understood, of course, that there is no electrical connection of any kind between the take-up device and the telephone or wire; also that the use of "pig tail" connections is eliminated and the wire prevented from twisting and conforming itself to increase resistance.

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

1. A device of the class described comprising a base, a closure removably supported by said base and cooperating therewith to provide a compartment, anchoring means within said compartment for securing a wire that has been lead thereinto, a pair of opposed rotatable rolls adapted to frictionally engage a wire lead therebetween, a geared connection between said rolls, there being an outlet from said compartment for the wire passing between said rolls, and yielding means associated with one of said rolls and tending to prevent movement of the rolls in a direction to permit the paying out of the wire through said last mentioned opening.

2. A device of the class described comprising a base, a closure removably supported by said base and cooperating therewith to provide a compartment, anchoring means within said compartment for securing a wire that has been lead thereinto, a pair of opposed rotatable rolls adapted to frictionally engage a wire lead therebetween, a geared connection between said rolls, there being an outlet from said compartment for the wire passing between said rolls, yielding means associated with one of said rolls and tending to prevent movement of the rolls in a direction to permit the paying out of the wire through said last mentioned opening, and a partition supported in spaced parallelism to said base for providing a loose wire containing compartment above said geared connection.

3. A device of the class described comprising a casing having an inlet and an outlet for a wire, means for anchoring the wire adjacent said inlet, a pair of rolls in said casing arranged adjacent one another, said wire being adapted to pass between said rolls and in frictional engagement therewith, a driving connection between said rolls, and 13

means having a driving connection with one of said rolls and tending to actuate both rolls in a direction to draw the wire into said casing from said outlet.

5 4. A device of the class described comprising a base member, a casing detachably secured to said base member and cooperating therewith to provide a chamber, posts rising from said base member within said chamber, a partition supported by certain of said posts
10 and extending parallel with said base member whereby to divide said chamber into upper and lower compartments, a pair of adjacent shafts having one end journalled in said base member and projecting through
15 said partition, meshing gears carried by said shafts in said lower chamber beneath said partition, friction rollers carried by said shafts in said upper chamber above said partition, the peripheries of said rollers being
20 in substantial contact, a drive gear operatively engaging one of said aforementioned gears, spring means tending to actuate said drive gear, said upper compartment having
25 an inlet and outlet for a wire which is adapted to be passed through the space between said rolls in frictional engagement with the rolls, and means for anchoring said wire in said upper compartment.

30 5. A device of the class described comprising a base member, a casing secured to said base member and having an inlet and an outlet for a wire, means for anchoring the wire adjacent said inlet, a pair of resilient rolls
35 in said casing arranged adjacent one another, said wire being adapted to pass between said rolls in frictional engagement therewith, and means associated with one of said rolls and tending to actuate both rolls in a direction
40 to draw the wire into said casing from said outlet, and interconnecting means for all of said rolls for positively driving both of said rolls.

In testimony whereof I affix my signature.

HAROLD ALLEN.

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