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J. C. CATLETT ET AL

HOLDING DEVICE FOR COILS

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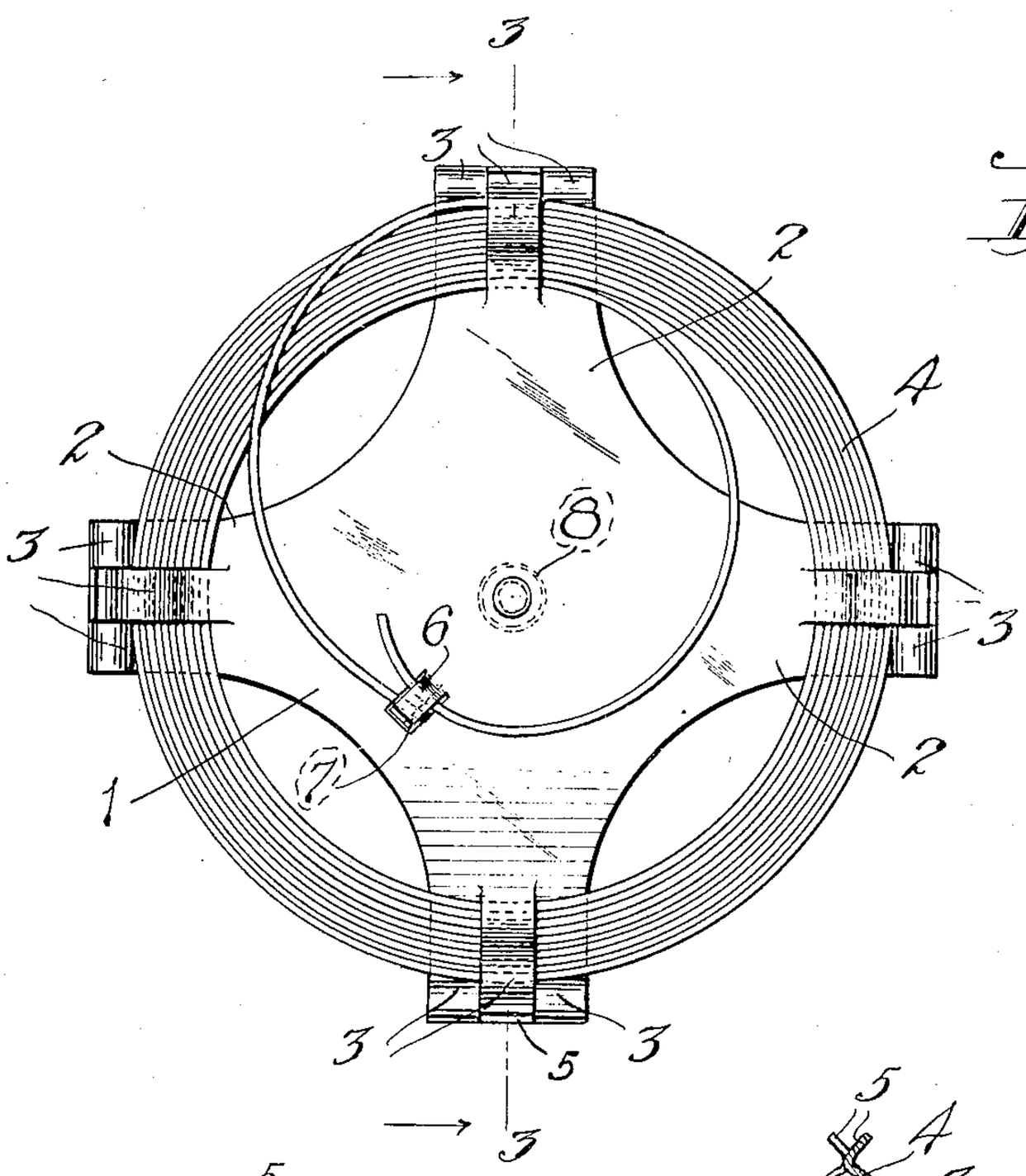

Fig. 1

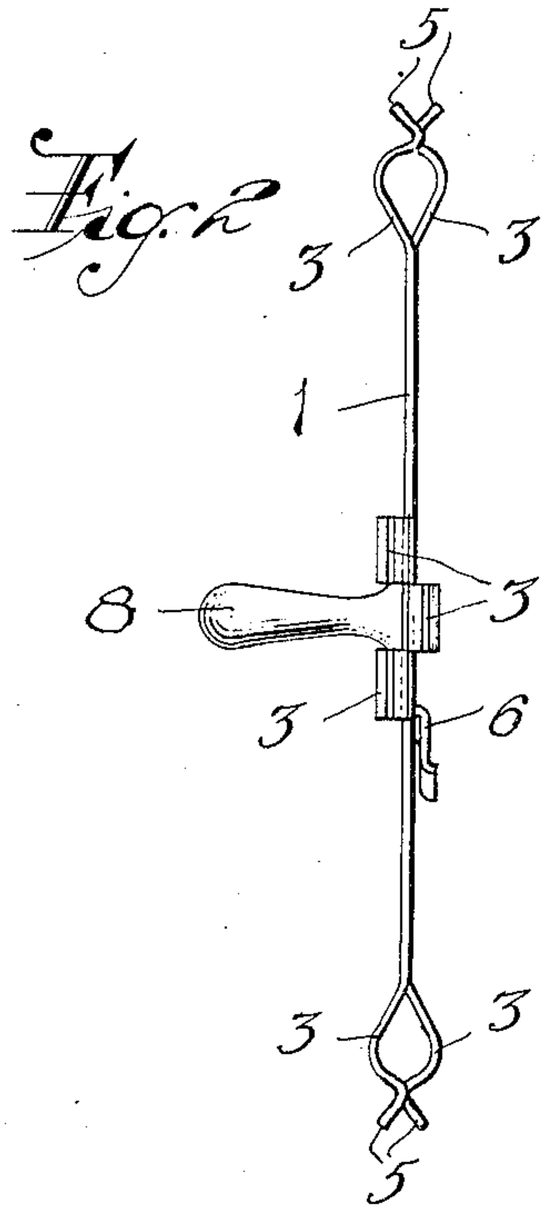

Fig. 2

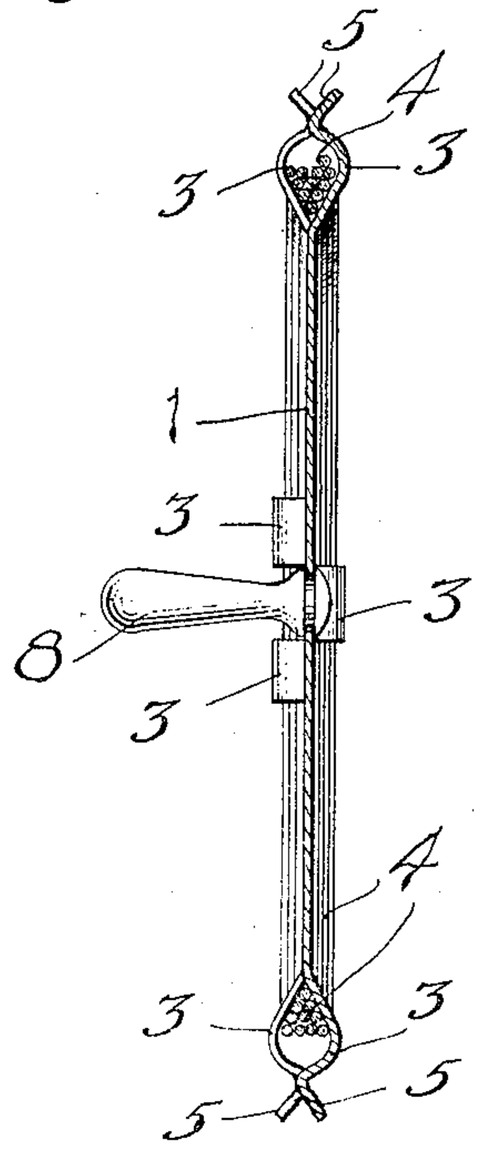

Fig. 3

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UNITED STATES PATENT OFFICE.

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HOLDING DEVICE FOR COILS.

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To all whom it may concern:

Be it known that we, JOSEPH C. CATLETT and EDWARD F. NELSON, both citizens of the United States, and residents of East Orange, in the county of Essex and State of New Jersey, have invented new and useful Improvements in Holding Devices for Coils, of which the following is a specification.

This invention relates to reels or holders for coils of wire, cord or the like, one object of the invention being to provide a device of this character embodying novel and improved features of construction which will prevent accidental unwinding of the wire or cord and from which a desired amount of wire or cord can be unwound without the possibility of the remainder of the same unwinding itself or becoming entangled by springing off the reel when the end is loosened or when the reel is dropped or laid down.

Another object is to provide a device of the character described including a body portion having a plurality of series of fingers projecting from its periphery, each of said series including a plurality of peripherally spaced fingers alternate ones of which are offset from opposite sides of the plane of said body portion, to hold a coil of wire, string or the like between them and permit said wire to be unwound from said coil one strand at a time without disturbing the remainder of the coil.

Further objects are to provide such a device in which said fingers are so arranged as to prevent accidental unwinding of said coil and yet permit easy winding of wire or the like on said body portion between said fingers and unwinding of said wire or the like one strand at a time from said coil between said fingers; to provide such a device formed of one piece of resilient sheet metal and having said fingers integral with said body portion; to provide a device of this character which is simple and inexpensive in construction, and to obtain other results and advantages as may be brought out by the following description.

Referring to the accompanying drawings, in which the same reference characters designate corresponding and like parts,

Figure 1 is a front elevation of a reel or holder for wire or the like embodying our invention;

Figure 2 is a side elevation thereof with the coil removed, and

Figure 3 is a transverse sectional view taken on the line 3—3 of Figure 1 and showing a coil of wire in position on the reel.

In the specific embodiment of the invention shown on the drawings, the reference character 1 designates the body portion of the reel which is preferably formed of resilient sheet metal and provided with a plurality of equidistantly spaced radial arms 2. Each of said arms is formed at its outer end with a plurality of integral fingers 3 alternate ones of which are offset from opposite sides of the plane of the body portion, as clearly shown in Figures 2 and 3, said fingers being preferably longitudinally curved to receive a coil 4 of wire or the like between opposite ones thereof. These fingers may be economically constructed by slitting the arms 2 longitudinally and bending the tongues formed by the slits to the desired shape. The outer extremities of the fingers are preferably formed with curved noses 5, the said noses of the fingers at one side of the plane of the body portion being curved outwardly in opposite directions from the noses on the fingers at the opposite side of the plane of the body portion to provide a mouth or guideway for guiding a strand of wire or the like between the fingers. In the present instance three fingers are shown on each of the arms 2, the two outside ones of said fingers being offset at one side of the body portion and the intermediate finger being offset from the opposite side of the plane of the body portion. The portions of the fingers of each arm at the inner ends of the noses 5 are in substantially the same plane and preferably in the plane of the body portion, so as to normally restrain a single strand of wire or the like from passing outwardly from between the fingers.

The wire, string or the like to be mounted on the coil may be wound thereon in the usual manner, the convolutions of the coil passing between the noses 5 of the fingers of each arm 2 and into the space between the fingers, the fingers springing outwardly to permit the wire to pass therebetween, and this winding is continued until the space between the fingers is substantially filled. The body portion is preferably provided with a tongue 6

stamped from one side thereof to receive the free end of the wire or string between it and the body portion, as clearly shown in Figure 1, and one edge of said tongue may be sharpened to form a knife edge 7 for cutting or breaking a length of wire from the coil. After the coil has once been wound on the body portion between the plurality of series of fingers 3, it will be observed that the coil is positively held in position on the body portion and can be removed only one convolution at a time, the single strand or convolution of the wire or string being forcibly pulled outwardly between the noses 5 of the fingers to unwind the wire from the coil, the opposite fingers springing outwardly in opposite directions to permit the wire to pass therebetween. After a convolution or strand of wire has passed between the fingers of one of said series, the said fingers spring back to their normal positions to prevent the remainder of the coil from becoming accidentally unwound or tangled. After the desired length of wire or string has been removed from the coil, the wire or string is slipped beneath the tongue 7 and the free end forced against the knife edge 7 which simultaneously breaks off the desired length of wire or string and secures the remaining end beneath the tongue 6.

Preferably the body portion is provided with a suitable handle or knob 8 arranged axially of the body portion which facilitates the unwinding of the wire from the coil, the body portion being preferably rotatable on the handle 8.

It will be understood that any number of series of fingers may be utilized on the body portion and that each series may be comprised of any number of fingers. Also, the shape and size of the fingers and the body portion may be varied, and while we have shown the fingers formed integral with the body portion, we also contemplate the formation of the fingers separate from the body portion but rigidly secured thereto. It will therefore be understood that many modifications and changes can be made in the details of construction of the reel or holder without departing from the spirit or scope of the invention, and we do not desire to be understood as limiting ourselves except as required by the following claims when construed in the light of the prior art.

Having thus described the invention, what we claim is:

1. A device of the character described including a body portion having a plurality of series of resilient fingers thereon, each of said series including a plurality of opposed fingers to receive a coil of wire or the like between them and permit said wire or the like to be unwound from said coil without bodily removing said coil.

2. A device of the character described including a body portion having a plurality of fingers on its periphery, certain of which are offset from one side of said body portion and others of which are offset from the opposite side of the body portion, fingers at one side of said body portion being adapted to cooperate with the others of said fingers to receive and support a coil of wire or the like between them.

3. A device of the character described including a body portion having a plurality of fingers on its periphery, certain of which are offset from one side of said body portion and others of which are offset from the opposite side of the body portion, and portions of all of said fingers being disposed in substantially a common plane, whereby said fingers are adapted to receive and support a coil of wire or the like between them and permit said wire or the like to be wound upon or unwound from said coil only one strand at a time.

4. A device of the character described including a body portion having a plurality of fingers on its periphery, alternate ones of which are offset from opposite sides of the plane of said body portion and adapted to cooperate with each other to receive and hold a coil of wire or the like between them.

5. A device of the character described including a body portion formed of resilient sheet metal and having a plurality of integral fingers on its periphery, alternate ones of which are offset from opposite sides of said body portion, corresponding portions of the outer ends of all of said fingers being disposed in substantially a common plane.

6. A device of the character described including a body portion formed of resilient sheet metal and having a plurality of integral fingers on its periphery alternate ones of which are offset from opposite sides of said body portion, corresponding portions of the outer ends of all of said fingers being disposed in substantially a common plane, and alternate ones of said fingers having their outer ends curved outwardly in opposite directions to guide wire or the like into the space between said fingers to wind said wire or the like on said body portion.

7. A device of the character described including a body portion formed of sheet metal and having a plurality of series of integral fingers formed by slitting said body portion inwardly from the periphery thereof, each of said series including two fingers offset from the same side of said body portion and an intermediate finger offset from the other side of said body portion to receive and support a coil of wire or the like between them.

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