

A. E. & B. W. SCHNEIDER.
WIRE HOLDING DEVICE.
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1,228,059.

Patented May 29, 1917.

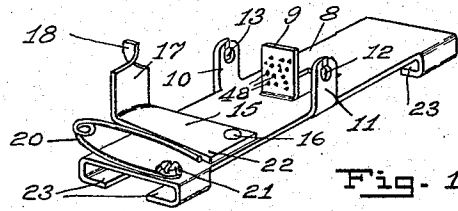


Fig. 1

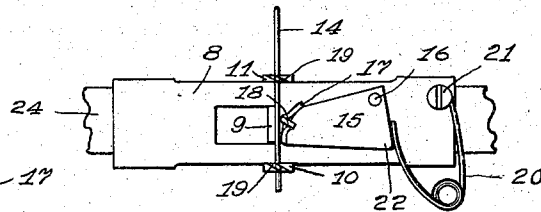


Fig. 2

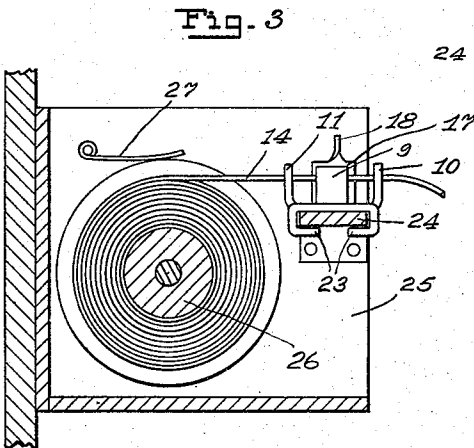


Fig. 3

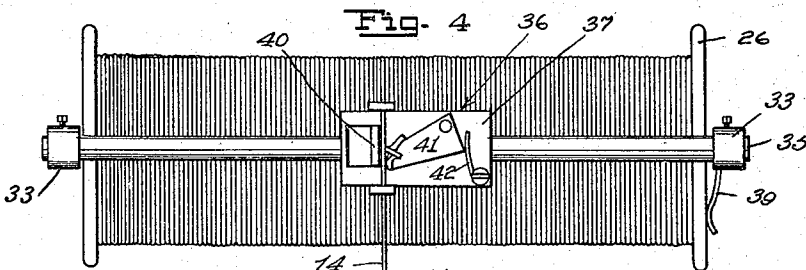


Fig. 4

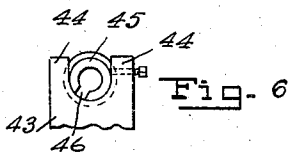


Fig. 6

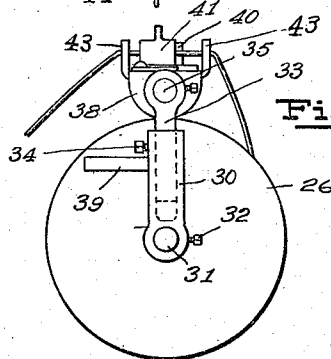


Fig. 5

WITNESS
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ALFRED E. SCHNEIDER AND BRUNO W. SCHNEIDER, OF SEATTLE, WASHINGTON.

WIRE-HOLDING DEVICE.

1,228,059.

Specification of Letters Patent.

Patented May 29, 1917.

Application filed June 7, 1915. Serial No. 32,563.

To all whom it may concern:

Be it known that we, ALFRED E. SCHNEIDER and BRUNO W. SCHNEIDER, citizens of the United States, residing at Seattle, in the county of King and State of Washington, have invented a new and useful Improvement in Wire-Holding Devices, of which the following is a specification.

This invention relates to improvements in wire holding devices and the object of the improvement is to provide a cheap, simple and efficient device that may be associated with a spool or reel whereon wire or cable is wound to render such wire or cable easily accessible to a user and to prevent the same from unrolling on the spool and becoming tangled as stiff wire will do if the end is released without securing it to the spool.

The invention consists in the novel construction, adaptation, and combination of parts as will be more fully described in the following specification, illustrated in the accompanying drawings, and finally pointed out in the appended claims.

In the accompanying drawings Figure 1 is a view in perspective of a device embodying our invention; Fig. 2 is a plan view of the same; Fig. 3 is a view in cross section of a spool of wire and a support therefor as they may appear when our wire clamping device is associated therewith; Fig. 4 is a plan view of a slightly modified form of our device as it may appear when applied to a spool or reel of wire that is not held in a fixed support; Fig. 5 is a view in end elevation of the same and Fig. 6 is a fragmentary view in side elevation of a detail of our invention.

Referring to the several figures of the drawings throughout which like reference numerals indicate like parts the numeral 8 indicates the body portion of a wire clamping device and 9 is an upwardly projecting wire engaging element that is preferably formed by stamping it out of the body portion 8 and bending it upwardly at right angles thereto.

10 and 11 are two wire guides formed on opposite sides of the body portion 8 in substantial alinement with the element 9 and provided with perforations 12 and 13 respectively through which a wire 14 may be passed as more clearly shown in Figs. 2 and

3. To facilitate the insertion of the wire 14 in the perforations 12 and 13 there are provided in the tops of each of the wire guides 10 and 11 an angularly disposed slot 19 that forms a passageway through which the wire may be caused to enter the perforation 12 or 13 when it is turned into an angular position such wire being retained in the guides in an obvious manner when it is again straightened out as more clearly illustrated in Fig. 2.

15 is a wire clamping cam that is secured to the body member 8 by a pivot 16 and is provided with an upright wire engaging element 17 having a curved or cam shaped surface that is adapted to coact with the element 9 and hold a wire.

The top of the element 17 is provided with a finger lug 18 which may be engaged by the fingers of the operator to move the cam 15 and such cam 15 is normally held in engagement with the wire 14 by a spring 20 that is secured to the body member 8 by a screw 21 and is adapted to press against the end of such cam near a corner 22 opposite the pivot 16. When the wire 14 is being inserted in the guides 10 and 11 the cam 15 may be turned outwardly into the position shown in Fig. 1 the corner 22 in this position being moved past the end of the spring 20 whereby such spring will press upon the side instead of upon the end of the cam 15 and will hold the cam in an out turned position.

The member 8 is provided near each end with engaging arms 23 that are turned downwardly and inwardly to adapt such member to be supported by and slide endwise upon a transverse bar 24 that is secured to a casing 25 within which is disposed a spool or reel 26 upon which the wire 14 is wound as more clearly shown in Fig. 3, the spool 26 being frictionally held by a brake spring 27 to prevent the wire from unreeling too easily, and the wire 14 being passed outwardly through the guides 10 and 11 and between the wire engaging elements 9 and 17 whereby it may be easily pulled outward when a piece of such wire is to be used but will be clamped and held by the elements 9 and 17 when it is pulled in an opposite direction by the natural tendency of the wire to unwind on the spool.

In Figs. 4 and 5 we have shown a frame

for associating our wire holding device with a spool 26 when the spool is not held in a rigid support, such frame consisting in tubular supporting arms 30 that are secured to the ends of a spindle 31 by set screws 32 and have extension rods 33 telescopically disposed therein and adapted to be supported in adjusted positions by set screws 34.

The top ends of the rods 33 are connected with the ends of a transverse bar 35 upon which is slidably disposed a wire gripping device 36 embodying substantially the same elements as the device illustrated in Figs. 1, 2 and 3 but of a slightly different form of construction, the device 36 consisting in a body member 37 having downturned ends 38 provided with suitable perforations (not shown) by which the device is slidably and rotatably mounted on the bar 35.

A brake spring 39 is secured to one of the arms 30 and adapted to bear against the end of the spool to prevent the spool from turning easily and unwinding the wire thereon.

The body member 37 is provided with an upright wire engaging element 40 and with a pivotally mounted wire gripping cam 41 similar to the cam 15. The cam 41 is normally held in position by a spring 42 corresponding in purpose and function to spring 20 and the body member 37 is provided with wire guides 43 which may be identical with the guides 10 and 11 or may be constructed with bifurcated top ends 44 adapted to receive a bushing 45 as more clearly shown in Fig. 6, the bushing 45 being slotted as at 46 and held in position by a set screw 47 whereby it may be inserted between the lugs 44 with the slot 46 uppermost and then the wire 14 may be passed through the slot and the bushing turned until the slot is closed and the set screw 47 tightened to hold the bushing in place.

When the device is applied to a spool of wire as shown in Figs. 3 or 4 the gripping cams 15 or 41 permit the wire 14 to be pulled outward but automatically grip the wire and prevent it from unreeling itself on the spool. Thus the wire cannot become tangled and the end of such wire is always easily accessible.

The coacting faces of the wire gripping elements may be provided with small teeth 48 to assist in gripping the wire if desired as shown on the element 9.

The rods 33 are adapted to be moved telescopically within the arms 30 to vary the length of the connection between the spindle 31 and the transverse bar 35 whereby the device may be adapted for use on spools of different size.

It is obvious that, by slight mechanical changes, the device herein shown and described may be adapted for use on any ordi-

nary type of spool or reel upon which wire or cable of any form is wound and it is further obvious that changes in the form of construction and arrangement of parts embodied in this device may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What we claim is:—

1. A wire holding device comprising a supporting bar, a body plate slidable lengthwise of said bar, wire guides on said body plate, and means on said body plate for engaging a wire to permit it to be moved in one direction only.

2. A wire holding device of the class described comprising a body plate, perforated wire guides provided on said body plate, said wire guides having inclined slots that communicate with said perforations, to permit the insertion of a wire therein, an upwardly projecting wire engaging element in alinement with said wire guides, and a spring pressed cam to coact with said wire engaging element to hold a wire.

3. A wire holding device of the class described comprising a body plate, a supporting bar, means for slidably engaging said body plate with said supporting bar, wire guides provided on said supporting plate, an upwardly projecting wire engaging element, and a spring pressed cam to coact with said wire engaging element to hold a wire.

4. A device of the class described comprising a frame having a spool of wire associated therewith, of brake devices yieldably engaging said spool, a bar disposed lengthwise of said spool, and a wire holding device slidably mounted on said bar said wire holding device having means for guiding a wire and means for engaging a wire to permit said wire to be moved through said guides in one direction and to prevent movement of said wire in an opposite direction.

5. A device of the class described comprising a frame having a spool of wire cable associated therewith, brake devices yieldingly engaging said spool, a bar disposed lengthwise of said spool, a wire holding device slidably mounted on said bar, wire guides associated with said wire holding device, an upwardly projecting wire engaging member in alinement with said wire guides and a spring pressed cam to coact with said wire engaging member to hold a wire.

6. In a structure of the class described the combination with a spool having wire wound thereon and a spindle upon which it may rotate, of arms connected with said spindle, means for varying the lengths of said arms, a brake spring secured to said arms and engageable with said spool, a bar

secured to the outer ends of said arms to
extend lengthwise of said spool, a wire hold-
ing device slidably mounted on said bar,
wire guides provided on said wire holding
5 device, a wire engaging element in align-
ment with said wire guides and a spring
pressed cam to coact with said wire engag-
ing element to hold a wire.

Signed by us at Seattle, Washington, this
28th day of May, 1915.

ALFRED E. SCHNEIDER.
BRUNO W. SCHNEIDER.

Witnesses:

C. M. MEIGS,
J. G. FITCH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."