

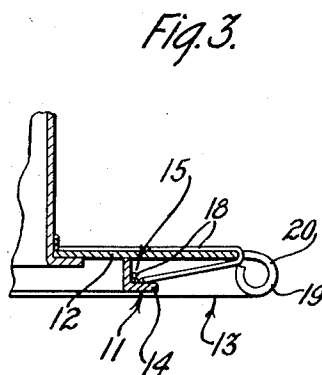
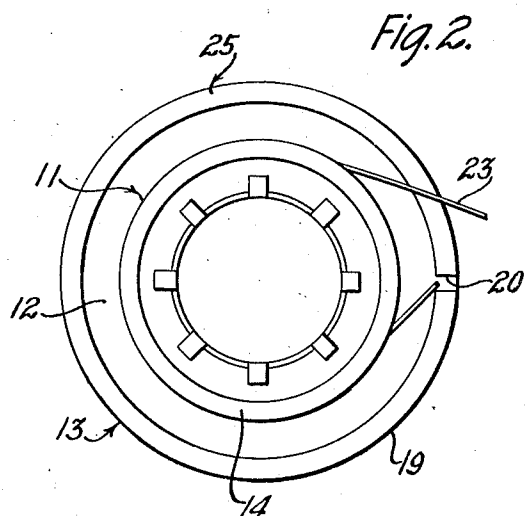
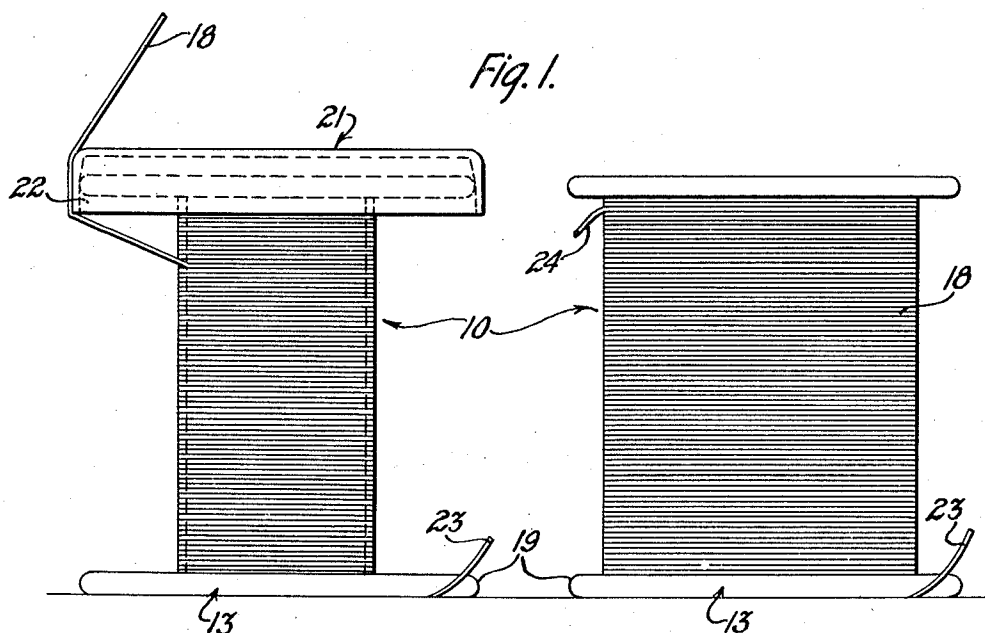
Oct. 16, 1928.

S. McMULLAN

1,687,579

MATERIAL HOLDER

Original Filed Oct. 22, 1924



Inventor
Samuel McMullan
by *Attorney* Att'y.

UNITED STATES PATENT OFFICE.

SAMUEL McMULLAN, OF DOWNERS GROVE, ILLINOIS, ASSIGNOR TO WESTERN ELECTRIC COMPANY, INCORPORATED, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

MATERIAL HOLDER.

Original application filed October 22, 1924, Serial No. 745,090. Divided and this application filed January 28, 1927. Serial No. 164,185.

This invention relates to material holders and has as its object the provision of inexpensive and efficient strand material holders designed to permit the uninterrupted supply of material when withdrawing material from a plurality of sources of supply successively.

This application is a division of my co-pending application Serial No. 745,090, filed October 22, 1924.

In accordance with the general features of this invention as applied to a plurality of spools carrying wire, the spools are provided with members for storing or supporting sufficient lengths of the inner ends of the spooled wire separate from the main portions, whereby while the wire is being supplied from one spool the inner end thereof may be unwound and connected to the outer end of a wire wound on another spool without disturbing the main winding on the first spool or interfering with the withdrawal thereof.

Other objects and advantages of this invention will more fully appear from the following detailed description taken in connection with the accompanying drawing illustrating one embodiment thereof, in which

Fig. 1 is a side elevation of a pair of spools embodying the features of this invention;

Fig. 2 is a bottom plan view of a spool illustrating the auxiliary wire storage means, and

Fig. 3 is an enlarged fragmentary detail vertical section through the lower flange of the spool.

Referring now to the drawing in detail in which like reference numerals designate similar parts throughout the several views, a spool 10 of a usual body construction is provided with an annular or endless member 11 of angle iron formation, the member being secured to an outer face 12 of one head 13 and arranged concentric with the axis thereof. The endless member 11 may be secured in any suitable manner, preferably by welding to the head 13 so that one arm 14 of the angle is spaced from the outer face of the head and directed outwardly toward the periphery thereof to form a circular shelf 15 upon which a few turns of the inner end of a wire 18 are first wound before filling the space between the heads of the spool. The spool heads 13 are preferably provided at their peripheries with a rolled bead 19 of such depth that when the spool is placed in its normal position, as il-

lustrated in the drawing, the bottom face of the shelf 15 is spaced from the floor or support upon which the spool is mounted, thereby protecting the shelf from injury if the spool should be dropped upon the floor or support. A slot 20 is provided in the rolled bead 19 whereby after winding several turns of wire upon the shelf 15, the wire may be passed through the slot 20 and then wound upon the spool between the heads 13. In use a spool 10 wound in the manner hereinbefore described is placed in an unreeling position as illustrated in Fig. 1, with the head 13 carrying the shelf 15 facing downwardly, and a cap-like member 21 of steel is fitted over the periphery of the upper head of the spool.

The cap member 21 is provided with a polished peripheral surface 22, around which the wire being unwound freely travels, due to the pull thereon from the apparatus to which the wire is being supplied. Before the spool is completely unwound the inner end of the wire indicated at 23, which has been looped around the shelf 15, is unwound by tilting the spool upon its head, the wire still being drawn therefrom by the apparatus to which the wire is being supplied. The end of the wire is then suitably connected, preferably by brazing, to the outer end of the wire indicated at 24, wound on another spool 10 which has been wound in a similar manner. When the last coil of wire on the spool 10 supplying the wire to the apparatus is unwound, the cap 21 is placed upon the second spool 10 which has been connected as described to the first spool and thereafter continues to supply wire to the apparatus, the empty spool being removed and the second spool being placed in the position formerly occupied by the first spool.

This operation of replacing exhausted spools with filled ones and connecting them to the feeding spool as described may be continued as long as desired, so that the wire may be fed continuously without interruption to the apparatus being supplied.

Since the joint in the wire is made while it is being fed, this operation does not interfere with the activity of the apparatus being supplied with the wire. The improved spool, as hereinbefore described for continuously feeding wire sequentially from a plurality of supply spools to an apparatus, may be constructed at a very low cost, since in most cases spools

in present use may be used by simply mounting the shelf 15 in position upon the outer face of one head and slotting the periphery of the head as described.

5 What is claimed is:

10 1. In a strand material holder, a body portion for receiving strand material, another portion of a character and size different from the body portion on which an auxiliary portion of the strand material is wound, and separating means for the strand supporting portion of the body having a slot to permit the strand material to pass therethrough from one portion to the other.

15 2. In a strand material holder, a body portion adapted to receive material, a head therefor, and an endless member secured to the outer end face of the head thereof upon which the inner end of the material wound on the holder is coiled so that it may be unwound therefrom independently of the main winding and joined to the outer end of a strand similarly wound on another holder.

20 3. In a spool for supporting a coil of strand material, a pair of heads, a body portion secured to the heads, and a circular member associated with a head supporting in coiled form the inner end of the strand material wound on the body portion so that
25 it may be unwound therefrom without disturbing the main winding and joined to the outer end of another strand on another spool, the head to which the circular member is secured having a slot at its periphery to permit
30 the strand to pass from the circular member to the main winding portion of the spool without extending outside the periphery of the head.

35 4. In a spool for supporting a coil of strand material, an auxiliary support for the inner end of the strand material wound on the spool so that it may be unwound therefrom without disturbing the main winding and joined to the outer end of a strand wound on
40 a similar spool, the support comprising a ring-like member substantially L-shape in cross-section secured along the end face of

one arm thereof to the outer end face of a head of the spool, the end face of the other arm being directed toward the periphery of
50 the spool, the head provided with a slot at its periphery to permit the strand to pass from the auxiliary support to the main winding portion of the spool without extending outside the periphery of the head.

55 5. In a spool, a pair of heads, a body portion secured to the heads on which the material is wound, and a circular member secured to one of the heads and providing a channel portion for supporting in coiled
60 formation a length of material extending to the interior portion of the coil wound on the body portion, whereby the outer end of one spool may be interconnected with the inner end of another spool without disturbing the
65 main portion of the spool.

6. In a spool for supporting a coil of strand material, a pair of heads, a body portion secured to the heads, an auxiliary support for the inner end of the strand material wound
70 on the body portion so that it may be unwound therefrom without disturbing the main winding and joined to the outer end of a strand wound on a similar spool; the support comprising a member having two endless strand supporting arms disposed substantially at right angles to each other, the
75 end face of one arm thereof being secured to the outer end face of a head of the spool, the end face of the other arm being directed toward the periphery of the spool, and a peripheral flange on the head which serves
80 when the head is placed face down to prevent the support from contacting with the surface upon which the spool is supported, and which
85 has a slot to permit the strand to pass from the auxiliary support to the main winding portion of the spool without extending outside the periphery of the head.

In witness whereof, I hereunto subscribe
90 my name this 14th day of January, A. D. 1927.

SAMUEL McMULLAN.