July 24, 1934. M. L. BROCK 1,967,763

WINDING DRUM

Original Filed Oct. 17, 1929

Fig. 1.

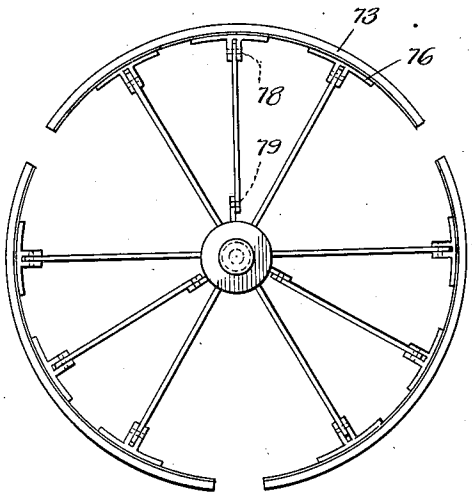
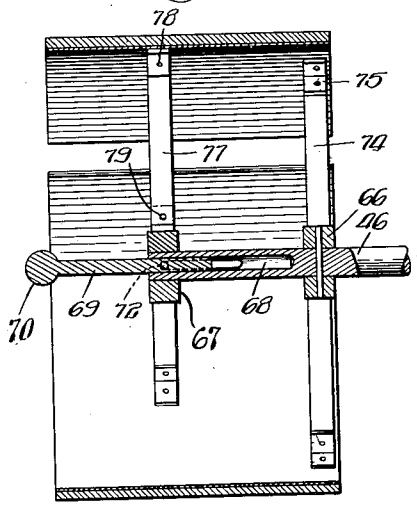



Fig. 2.




Inventor:-
Melville L. Brock,
By Wilkinson, Huxley, Byron & Knight. attys.

Patented July 24, 1934 1,967,763

# UNITED STATES PATENT OFFICE

1,967,763

## WINDING DRUM

Melville Llewellyn Brock, Chicago, Ill., assignor to Swift & Company, Chicago, Ill., a corporation of Illinois

Original application October 17, 1929, Serial No. 400,430. Divided and this application January 26, 1931, Serial No. 511,301

1 Claim. (Cl. 242—111)

This application is a division of applicant's co-pending application Serial Number 400,430, filed October 17th, 1929, for which Patent No. 1,913,829 issued June 13, 1933, and which is directed to the entire mechanism in combination.

The present invention is directed to the construction of the winding drum employed as an element of the combination described and claimed in my co-pending application and it is an object of this invention to provide an improved construction of drum, upon which strings of casings may be readily wound and one which is collapsible to permit an easy removal of the casings from the drum.

It is a further object of this invention to provide a novel drum construction whereby the drum is collapsible by simple operation without involving complicated and expensive mechanism.

Since the present invention is confined to the drum construction, it is deemed unnecessary to describe the entire mechanism which is described in applicant's aforesaid Patent No. 1,913,829.

Additional advantages of the improved construction will be more readily apparent from the appended drawing, in which:—

Figure 1 is a detail end view of the winding drum.

Figure 2 is a longitudinal section through the winding drum shown in Figure 1.

The construction of the winding drum will now be described particularly having reference to the drawing in which appears a driving shaft 46 having pinned thereto a fixed collar 66 and slidably mounted on the shaft 46 at the outer end thereof is a collar 67. An axial opening 68 is provided in the shaft 46 and receives a rod 69 carrying an operating handle 70. Slots 71 are formed in the shaft 46 and receive pins 72 which connect the operating rod 70 to the sliding collar 67. The drum itself comprises a plurality of sections and in the described embodiment there are shown three sections 73 each being of identical construction. Each section is carried at its inner end by a pair of supporting arms 74 which are fixedly secured to the collar 66 but are pivotally attached to the sections by means of pins 75 which fasten the arms 74 to the brackets 76. Thus each section may swing inwardly toward the axis of the drive shaft by pivoting about the pins 75. The drum is normally held with the sections in the outer positions forming a cylinder by means of levers 77. Each of the levers 77 is pivotally attached to one of the sections 73 by the pin 78 and is also pivotally attached to the sliding collar 67 by a pin 79. It will be apparent that an inward movement of the operating rod 69 will cause the sections to move inwardly and thus collapse the drum. This construction is especially desirable since it enables a quick and efficient removal of the casings after they have been wound on the drum.

Although I have described a preferred embodiment of the apparatus, it will be apparent that many changes and modifications may be made without departing from the spirit of my invention as expressed in the claim.

I claim:

A collapsible drum of the character described comprising a rotary shaft having a pair of spaced hubs thereon, one of which is fixed and the other of which is axially slidable but rotatable with said shaft, a plurality of segmental plate-like members collectively forming a sectional peripheral surface for said drum, means for forming a three point support for each of the segmental peripheral members comprising a pair of circumferentially spaced arms rigid with the fixed hub and supporting one end of the associated segmental member at laterally spaced points and pivotally connected with the same, and a single lever supporting the other end of the associated segmental member at a point opposite the space between the said arms and pivotally connected at its outer end to the said member and at its inner end to the slidable hub, whereby said drum is collapsible in one direction upon sliding movement of said slidable hub, and means mounted within the rotary shaft and attached to the slidable hub for convenient manual movement of the slidable hub for collapsing and restoring the shape of the drum.

MELVILLE LLEWELLYN BROCK.