

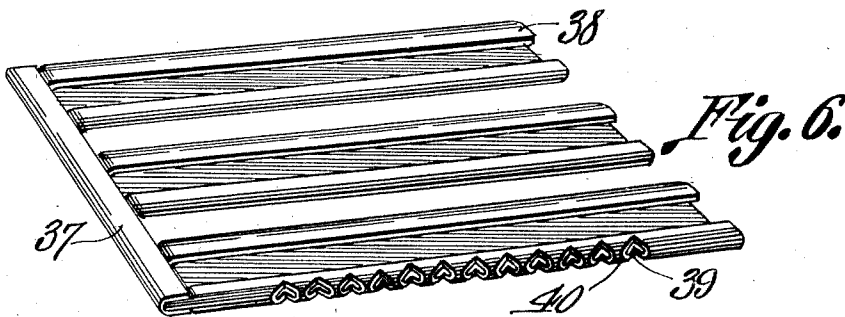
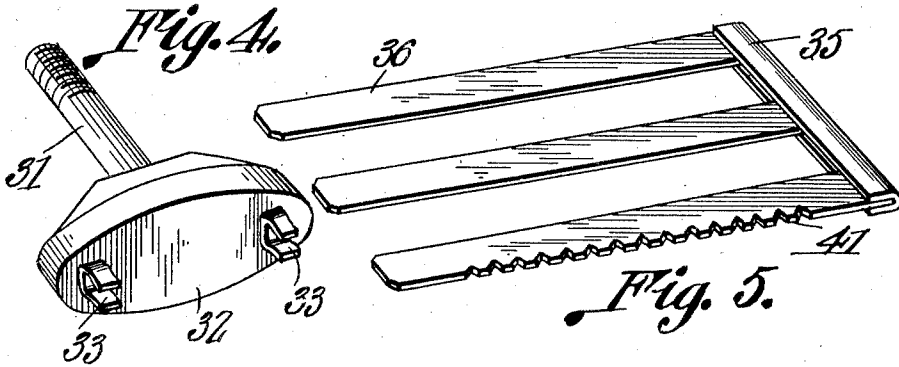
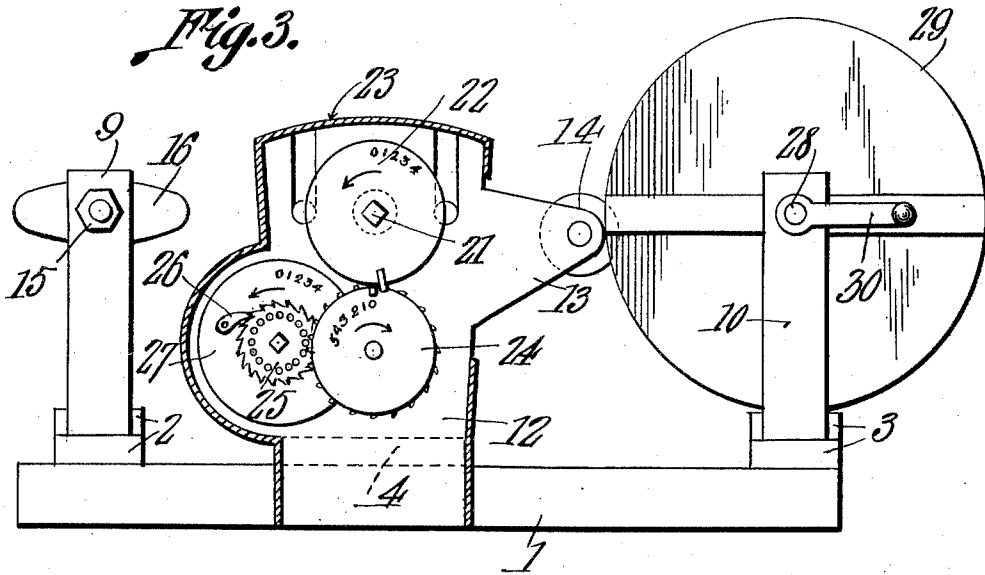


S. J. FISH.  
CLOTH ROLLING AND MEASURING APPARATUS.  
APPLICATION FILED APR. 29, 1910.

1,009,730.

Patented Nov. 28, 1911.

2 SHEETS—SHEET 2.



Witnesses

*J. H. Smith*  
*Herbert A. Lawson*

*Squire J. Fish,* Inventor  
by *C. A. Snow & Co.* Attorneys

# UNITED STATES PATENT OFFICE.

SQUIRE J. FISH, OF BROOKLYN, MICHIGAN.

CLOTH ROLLING AND MEASURING APPARATUS.

1,009,730.

Specification of Letters Patent.

Patented Nov. 28, 1911.

Application filed April 29, 1910. Serial No. 558,341.

*To all whom it may concern:*

Be it known that I, SQUIRE J. FISH, a citizen of the United States, residing at Brooklyn, in the county of Jackson and State of Michigan, have invented a new and useful Cloth Rolling and Measuring Apparatus, of which the following is a specification.

This invention relates to apparatus for winding cloth and for measuring the same as it is unwound from the bolt.

One of the objects of the invention is to provide apparatus of this character which is simple in construction, can be readily operated, and which is adjustable to fabrics of different widths.

A further object is to provide improved means for attaching the free end of the fabric to the apparatus.

Another object is to provide an indicator whereby the amount measured off during each operation and the total amount removed from the bolt, can be readily determined at any time.

With these and other objects in view the invention consists in certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claim.

In the accompanying drawings, the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a plan view of the apparatus. Fig. 2 is a section on line A—B Fig. 1, the position of the fabric in the device being indicated by dotted lines. Fig. 3 is a side elevation of the apparatus, the casing of the indicator being shown in section. Fig. 4 is a perspective view of one of the bolt engaging heads. Fig. 5 is a perspective view of one of the sections of the winding core. Fig. 6 is a perspective view of the other core section.

Referring to the figures by characters of reference 1 designates side strips connected by end cross strips 2 and 3 and an intermediate cross strip 4, these strips all projecting beyond one of the side strips 1 as clearly indicated in Fig. 1. The projecting end portions of the strips 2 and 3 are formed with dove-tailed grooves 5 within which are mounted slides 6, said slides carrying movable standards 7 and 8 respectively. Each of these slides frictionally engages the walls of the groove 5 and is thus held against displacement. A stationary standard 9 projects upwardly from the opposite end por-

tion of the strip 2 and another stationary standard 10 projects upwardly from the strip 3 at that end thereof farthest removed from the standard 8. Fixed uprights 11 and 12 are arranged on the ends of the intermediate strip 4 and these uprights have arms 13 supporting an idler roller 14. Each of the standards 7 and 9 has a shaft 15 journaled within it, there being a head 16 secured to each end of the shaft and provided with inwardly extending pins 17. These heads 16 contact with the inner faces of the standards 7 and 9 and the pins 17 are adapted to project into engagement with the board or core on which the bolt of cloth to be unwound, is wrapped. Inasmuch as the standard 7 is mounted on the slide 6 it will be apparent that said standard and the head 16 carried thereby can be adjusted toward or from the opposed head 16 so as to receive between the two heads a bolt of any length.

Parallel spaced guide rollers 18 are journaled at their ends between the uprights 11 and interposed between these guide rollers is a measuring roller 19 which is also journaled within the uprights 11. Teeth or projections 20 extend from one end portion of the measuring roller and are so located as to bite into the fabric at a point close to one edge thereof. One of the trunnions 21 of the measuring roller 19, has a disk 22 thereon provided with numerals for indicating inches from 1 to 36. These numerals are adapted to be successively displayed within apertures not shown, within one wall of a casing or housing 23. The disk 22 is adapted, upon the completion of each revolution thereof, to partly rotate a second disk 24 which is provided with numerals indicating yards and this last mentioned disk is adapted to transmit motion to a ratchet wheel 25 from which motion is transmitted through a pawl 26 to a third disk 27. This last mentioned disk is adapted to be rotated one point upon the completion of each rotation of the disk 22 and is designed to indicate the total number of yards measured by successive operations. Obviously the disks 22 and 24 can be turned back to their starting point upon the completion of each measuring operation without, however, returning the disk 27.

A shaft 28 is journaled within the standard 10 and has a disk 29 secured to its inner end, while a crank 30 or other suitable device is secured to the outer end thereof to

facilitate the rotation of the shaft and the disk. Another shaft 31 is journaled within the standard 8 and carries a head 32. Spring clips 33 are secured upon the inner face of the head 32 and similar clips 34 are secured upon the inner face of the disk 29. These two sets of clips are adapted to engage the opposite ends of an extensible winding core which has been shown in detail in Figs. 5 and 6. Said core consists of two sections, one of which is made of an end strip 35 having parallel slats 36 extending therefrom. The other section of the core is made up of an end strip 37 having parallel longitudinally channeled members 38 extending therefrom, the channels in these members being of such size as to permit the slats 36 to slide within them. One of the side channeled members has notches 39 cut thereinto to form teeth 40 and the slat 36 which is movably mounted within this notched channel member, is similarly notched to form teeth 41. The teeth 40 are adapted at all times to engage the fabric to prevent it from slipping upon the winding cloth. When it is found necessary to extend the core so as to support a fabric which is of greater width than the channeled members 38, the slats 36 are drawn out of the channeled members so as to expose some of the teeth 41 which are thus permitted to also engage with the fabric to be wound.

When it is desired to use the apparatus which has been described, the indicator is first set so as to indicate zero, and the standards 7 and 8 are adjusted toward or from the opposed standards 9 and 10 so as to properly engage the bolt of cloth to be unwound, measured, and rewound. The prongs or pins 17 upon the heads 16 are adapted to bite into the ends of the wooden core or board about which the fabric is ordinarily wrapped. After the bolt has been positioned between the heads 16, the free end of the fabric is threaded between the rollers 18 and 19 and under said roller 19 with the pins or projections 20 engaging the marginal portion of the fabric. Said fabric is then extended over the idler roller 14 and is wrapped about the notched or toothed member 38 of the adjustable wind-

ing core. By turning the crank 30 the winding core will wind the fabric upon the core and will, at the same time, pull the fabric between the measuring and guide rollers and off of the core engaged by the pins 17. The moving fabric will cause the roller 19 to rotate and this roller will actuate the indicator which, in turn, will accurately disclose the amount of fabric wound upon the winding core. It will be apparent of course that the said winding core can be readily adjusted to hold fabrics of different widths and, by providing the notched members, the fabric will be firmly engaged by the said core and prevented from slipping thereon while the core is being rotated. Moreover by forming slots within the winding core, the end of the ribbon or other article to be wound can be inserted into the core so that, when the core is rotated, the said ribbon or the like will be positively wound thereon.

Various changes can of course be made in the construction and arrangement of the parts without departing from the spirit or sacrificing any of the advantages of the invention as defined in the appended claim.

What is claimed is:—

Apparatus of the class described including a member mounted for rotation, a second revoluble member adjustable toward or away from the first mentioned member, spring clips upon the inner faces of and revoluble with said members, and a winding core detachably engaged and supported by the clips, said core consisting of end strips engaging the clips, parallel central and side slats extending from one of said end strips, parallel longitudinally channeled middle and side members extending from the other end strip, said slats being slidable within the channeled members, there being notches in the outer edge portion of one of the channeled members and the slat therein, said notches being adapted to register.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

SQUIRE J. FISH.

Witnesses:

JOHN P. KLINE,  
FAY. A. DU BOIS.