

July 31, 1934.

R. N. CORTHELL

1,968,478

THREAD COP

Filed Nov. 7, 1931

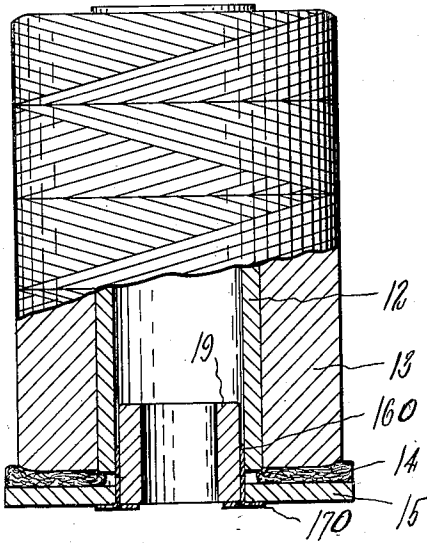


Fig. 1.

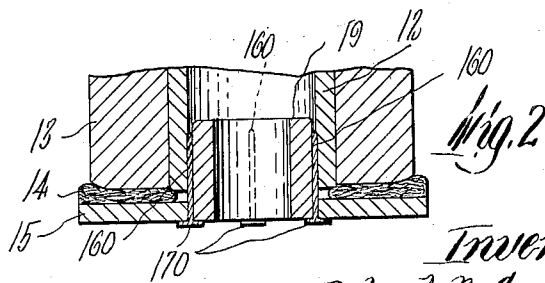


Fig. 2.

Inventor
Robert N. Corthell
by Wright Brown Limby May
Attys.

UNITED STATES PATENT OFFICE

1,968,478

THREAD COP

Robert N. Corthell, Auburn, Maine

Application November 7, 1931, Serial No. 573,562

2 Claims. (Cl. 242—118)

This invention relates to a thread cop comprising a tubular core usually a relatively thick paper tube, a thread body usually universally or cross wound on the core, an annular cushion of
 5 felt or other compressible material bearing on the lower end of the thread body and an annular base, usually cut from stiff paper board, secured to the core in such manner as to press the cushion closely against the end of the thread body on
 10 which it bears, and a tubular hub of compressible material inserted in an end portion of the core and adapted to rotate on the spindle of a cop-supporting stand to permit free rotation and prevent lateral displacement of the cop, the cushion
 15 being intended to prevent loose convolutions of the thread which drop from the periphery of the thread body from being drawn under the thread body and caught or gripped thereby, and broken by strain exerted thereon by the stitch-forming
 20 mechanism of a sewing machine.

The object of the invention is to provide improved means rigidly securing the base to the core so that the base cannot rotate independently of the core and thread body, and is not liable
 25 to be accidentally detached from the cop, said means confining the cushion compressed against an end of the thread body, and positively preventing accidental removal of the hub from the core.

30 Of the accompanying drawing forming a part of this specification,

Figure 1 shows in section a portion of a thread cop, the cushion, the base, the hub, and means securing the base and the hub to the cop and
 35 confining the cushion compressed against the thread body, said means positively preventing removal of the hub from the cop.

Figure 2 is a fragmentary view similar to a portion of Figure 1.

40 The same reference characters indicate the same parts in all of the figures.

12 designates the tubular core, and 13 the thread body of a well known thread cop.

45 14 designates an annular compressible cushion formed to cover one end of the thread body and preferably of somewhat larger diameter than said end.

15 designates an annular base of any suitable stiff material such as paper board.

50 19 designates a tubular bushing preferably of somewhat compressible material such as wood, inserted in an end portion of the core and proportioned to permit the interposition of tongues 160 between the internal surface of the core and
 55 the external surface of the bushing, said tongues

being backed by the bushing and forced thereby into gripping engagement with the internal surface of the core, the latter being somewhat compressible. The bushing being also somewhat compressible, the tongues are in gripping engagement also with the bushing. 60

The bushing and tongues are therefore firmly secured in the core.

In this instance the tongues 160 are the shanks of slender nails driven between the core 12 and bushing 19, and so proportioned that when driven they have a gripping engagement with the internal surface of the core and the external surface of the bushing. 65

Each nail has a thin flat head 170 projecting both outwardly and inwardly from the shank, the outer portion bearing on the bottom of the base 15. The inner portion bears on the lower end of the hub 19, and constitutes a stop positively preventing downward movement of the hub
 70 from its operative position. 75

The nails are preferably made of copper or galvanized iron.

I claim:

1. A thread cop comprising a tubular core of compressible material, a thread body wound thereon, an annular compressible cushion covering the base end of the thread body, an annular base bearing on the cushion, a tubular hub of compressible material inserted in an end portion
 85 of the core and adapted to rotate on the spindle of a cop-supporting stand, and means separably securing the base to the core to prevent independent rotation of the base, confine the cushion compressed against the thread body, and positively
 90 confine the hub in the core, said means including a plurality of tongues interposed between the internal surface of the core and the external surface of the hub in indenting engagement with
 95 said surfaces, so that the hub is engaged with the core to rotate therewith, said tongues having stops bearing on the under surface of the base and on the lower end of the hub to confine the base
 100 against the cushion and positively oppose removal of the hub from the core.

2. A thread cop as specified by claim 1, said tongues being the shanks of nails interposed between the hub and core, said stops being nail heads projecting laterally outward and inward from the shanks and bearing on the bottom surface of the base, and on the lower end of the hub. 105

ROBERT N. CORTHELL.