

No. 704,435.

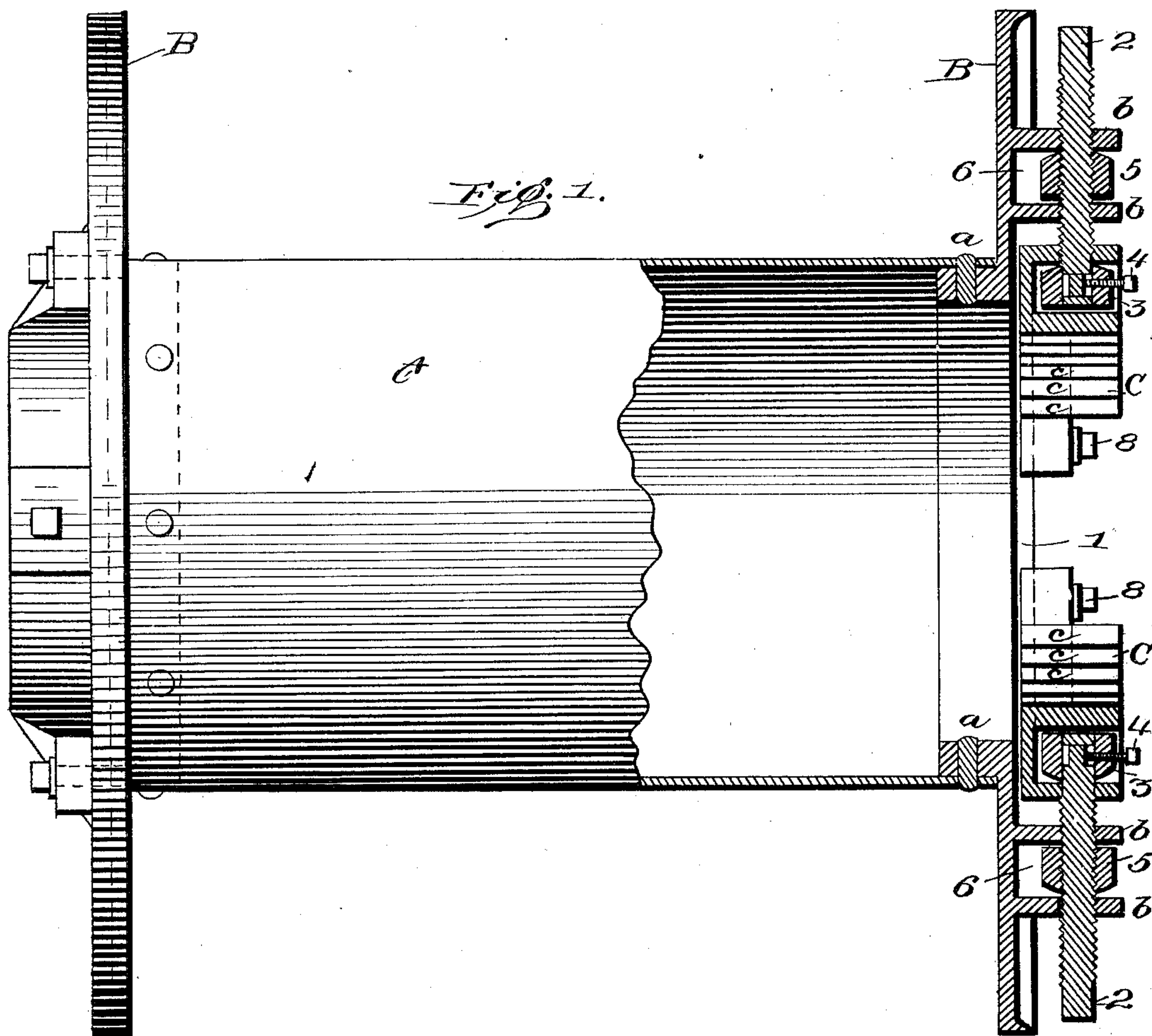
Patented July 8, 1902.

K. CHICKERING.
SPOOL FOR SAND REELS, &c.

(Application filed Jan. 8, 1902.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
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J. M. Dwyer.

Inventor:
Kenton Chickering
by J. W. Ritter, Jr. Atty.

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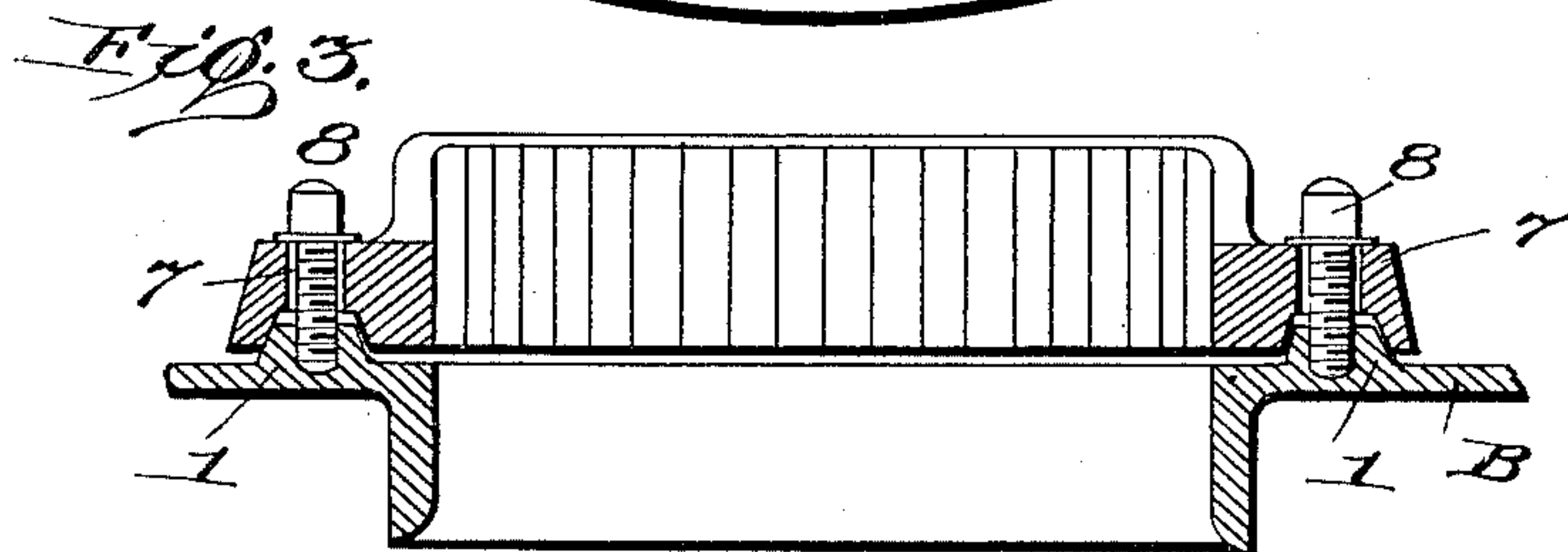
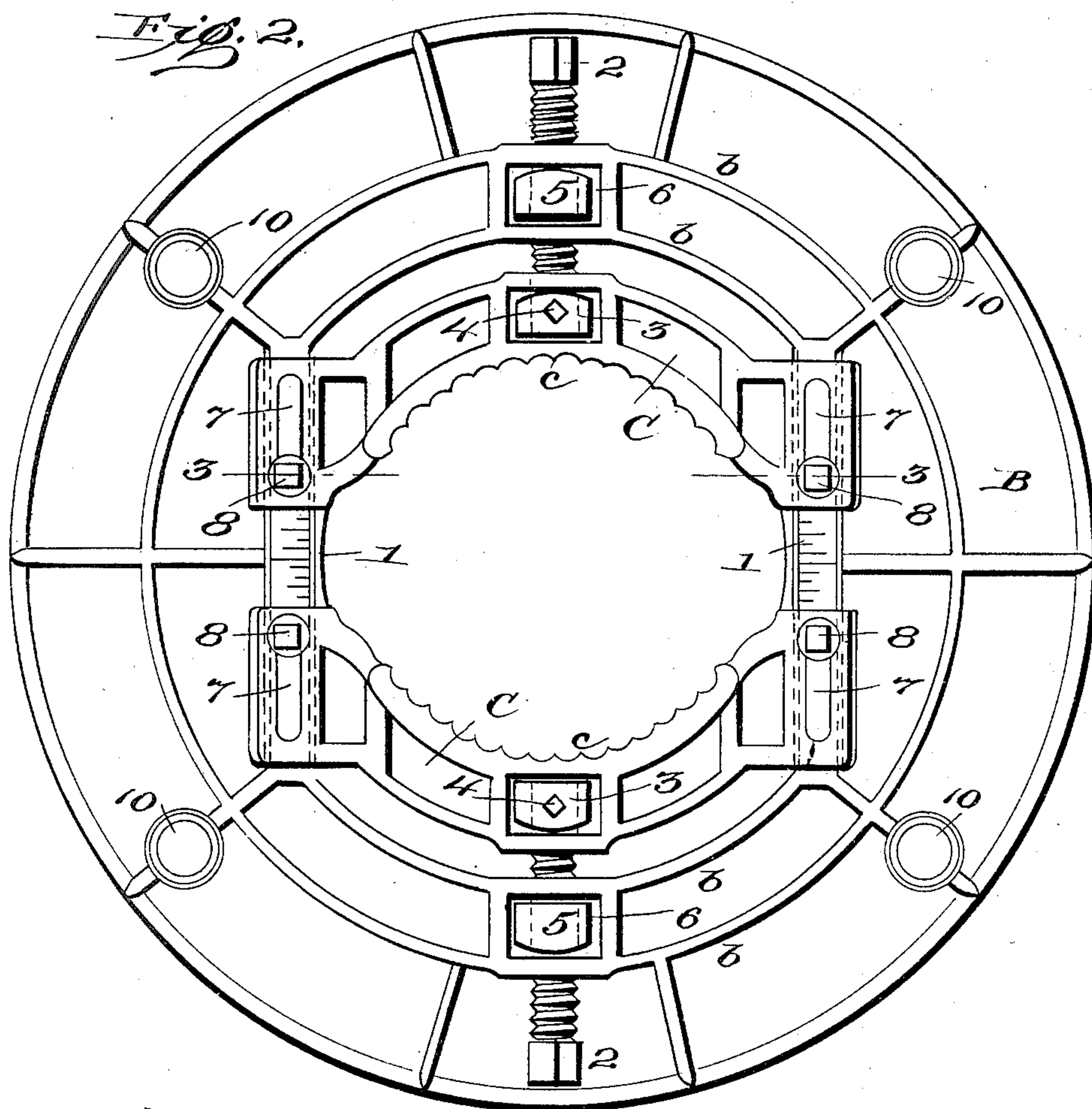
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UNITED STATES PATENT OFFICE.

KENTON CHICKERING, OF OIL CITY, PENNSYLVANIA.

SPOOL FOR SAND-REELS, &c.

SPECIFICATION forming part of Letters Patent No. 704,435, dated July 8, 1902.

Application filed January 8, 1902. Serial No. 88,912. (No model.)

To all whom it may concern:

Be it known that I, KENTON CHICKERING, a citizen of the United States, residing at Oil City, in the county of Venango, State of Pennsylvania, have invented certain new and useful Improvements in Spools for Sand-Reels, &c.; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, of a sand-reel spool embodying my invention. Fig. 2 is an end view showing one head and its clamps; and Fig. 3 is a transverse section of so much of the head, its clamp-guides, and a clamp, taken on the line 3 3, Fig. 2, as will show how any lateral movement of the clamps on the spool-heads is prevented.

Like symbols refer to like parts wherever they occur.

My invention relates generally to spools for wire-lines, but more especially to detachable spools for sand-pump reels and like purposes, and has for its object the production of a light or portable, strong, and readily-adjustable spool which may be quickly attached to and detached from any suitable shaft, whether of wood or metal.

To this end the main features of my invention consist, first, in the combination, with the spool-heads of a suitable drum or spool, of a plurality of shaft-clamps adjustable to and from the axis of the drum, and means for fixing the clamps to the spool-heads after adjustment, whereby the spool may be applied to or removed from any shaft at the will of the user; second, in the combination, with the head of a drum or spool, of a plurality of shaft-clamps adjustable to and from the axis of the drum and parallel graduated clamp-guides whereby the spool may be centered with relation to the reel-shaft, and, third, the combination, with the spool-head and shaft-clamps, of parallel clamp-guides having beveled sides and suitable means for confining the clamps to the guides whereby any lateral movement between the clamps and the spool-head is prevented.

There are other minor features of invention, all as will hereinafter more fully appear.

I will now proceed to describe my invention more fully, so that others skilled in the art to which it appertains may apply the same.

In the drawings, A indicates a drum of such inner diameter as will permit the introduction of a suitable shaft, and B B annular flanges or heads having central openings, said drum A and heads B B constituting a reel or spool.

The drum A may be of sheet or cast metal, and the heads B B are preferably of malleable iron or steel, the heads being riveted to the drum, as at *a*, or otherwise connected thereto in a strong and rigid manner.

The outer faces of the heads B B are each provided with concentric flanges *b b*, whereby the strength of the heads is augmented and whereby also means is provided for the adjusting-screws of the shaft-clamps and the ends of said flanges *b b*, which flanges are oppositely placed, and equal arcs are connected by parallel clamp-guides 1 1, upon each of which guides a scale is marked to facilitate the equal adjustment of the clamps to and from the axial center of the drum. The edges of said clamp-guides 1 1 are preferably beveled for purposes which will hereinafter appear.

C C indicate shaft-clamps of curved form and preferably roughened or serrated, as at *c*, to bite the reel-shaft. At least two of said clamps are applied to the outer face of each head of the spool, and they are made adjustable to and from each other and from the axis of the drum by means of adjusting-screws 2 2 or in other suitable manner.

In the present instance the adjustments are made by means of the screws 2 2, which pass through holes in the flanges *b b* and which are connected with the clamps by detachable button or swivel heads 3 and set-screws 4 or in other suitable manner, said screws 2 2 being passed through nuts 5 5, held against turning in boxes 6 6, located diametrically opposite each other and between the arc-flanges *b b* of the head B.

The ends of the clamps C C are slotted, as

at 7 7, for the passage of clamp-screws 8 8, which screw into the clamp-guides 1 1 of the head B, so as to bind the clamps C C firmly and fixedly to the head after the clamps have

5 been properly adjusted to grip the reel-shaft.

The parallel clamp-guides 1 1 are beveled, as hereinbefore noted, and the under faces of said clamps C C have parallel guide-grooves correspondingly inclined, (see Fig. 3,) so that

10 when the clamp-screws 8 8 are operated to secure the clamps to the head the clamps will seat and bind on the clamp-guides and prevent any lateral movement between the clamps and head.

15 The heads B B are each provided with holes or openings 10 near their peripheries to permit the introduction of bars, levers, or handles when the spool (either with or without the line) is to be removed from the shaft or

20 moved from place to place.

The construction of the spool being substantially as hereinbefore pointed out, it may be secured to any suitable reel-shaft by first slipping the spool on the shaft, then by

25 means of adjusting-screws 2 2 causing the clamps c c to approach equally the axis of the drum until the reel-shaft is gripped, the scale on the clamp-guides 1 1 being used to insure the centering of the spool, and finally the

30 clamp-screws 8 8 are turned home to fix the clamps C C immovably to the head B and prevent any lateral play between the clamps and the head.

The spool can be readily removed from the

35 shaft at any time by first loosening the clamp-screws 8 and then withdrawing the clamps C C from the shaft by turning the adjusting-screws 2 2.

A construction such as hereinbefore pointed out or its equivalent will insure an extremely strong and durable, as well as a light and portable, reeling-spool, which can be readily removed from shaft to shaft and from place to place as required.

45 Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with a sand-reel spool having suitable heads, one of said heads provided with a clamp-guide, of clamps movable

50 on said guide to and from the axis of the spool, means for adjusting said clamps along said guide to and from the axis of the spool, and means for binding said clamps on the guide

55 after adjustment thereon, substantially as and for the purposes specified.

2. The combination with a sand-reel spool having suitable heads, one of said heads provided with parallel clamp-guides oppositely

60 disposed with relation to the axis of the spool, of oppositely-disposed adjustable clamps which travel on said parallel clamp-guides, and a screw for each of said clamps centrally

disposed with relation to its clamp for adjusting said clamps on the guides to and from the axis of the spool, substantially as and for the purposes specified. 65

3. The combination with a sand-reel spool having suitable heads, one of said heads provided with parallel clamp-guides having scales marked thereon, of a plurality of clamps, and means for adjusting said clamps on the clamp-guides to and from the axis of the spool, substantially as and for the purposes specified. 70

4. The combination with a sand-reel spool having suitable heads, one of said heads provided with parallel beveled clamp-guides, of a plurality of adjustable clamps having guide-ways which correspond with and engage said beveled clamp-guides said clamps slotted for the reception of set-screws, and set-screws for confining said clamps to said beveled guides after adjustment thereon, substantially as and for the purposes specified. 75

5. In a sand-reel spool, the combination with a suitable drum of a head having oppositely-disposed arc-shaped flanges, oppositely-disposed parallel clamp-guides connecting said arc-shaped flanges, adjustable clamps movable on said parallel clamp-guides, means for adjusting said clamps on said guides to and from the axis of the spool, and means for binding said clamps to the clamp-guides of the head after adjustment, substantially as and for the purposes specified. 85

6. In a sand-reel spool, the combination with the head thereof provided with oppositely-disposed flanges and oppositely-disposed parallel clamp-guides, said flanges and guides arranged around the axis of the spool, of oppositely-disposed clamps movable on said guides to and from the axis of the spool, adjusting-screws which pass through the concentric flanges, and nuts for said screws between said concentric flanges, substantially as and for the purposes specified. 95

7. In a sand-reel spool, the combination with the head thereof provided with oppositely-disposed concentric flanges, of parallel slotted clamp-guides arranged on opposite sides of the axis of the spool, clamps movable on said clamp-guides to and from the axis of the spool, screws for adjusting said clamps, nuts for said screws arranged between the concentric flanges, and set-screws which pass through the slots of the clamps and into the clamp-guides, substantially as and for the purposes specified. 100

In testimony whereof I affix my signature, in presence of two witnesses, this 8th day of January, 1902. 105

KENTON CHICKERING.

Witnesses:

F. W. RITTER, Jr.,
HUGH M. STERLING.