

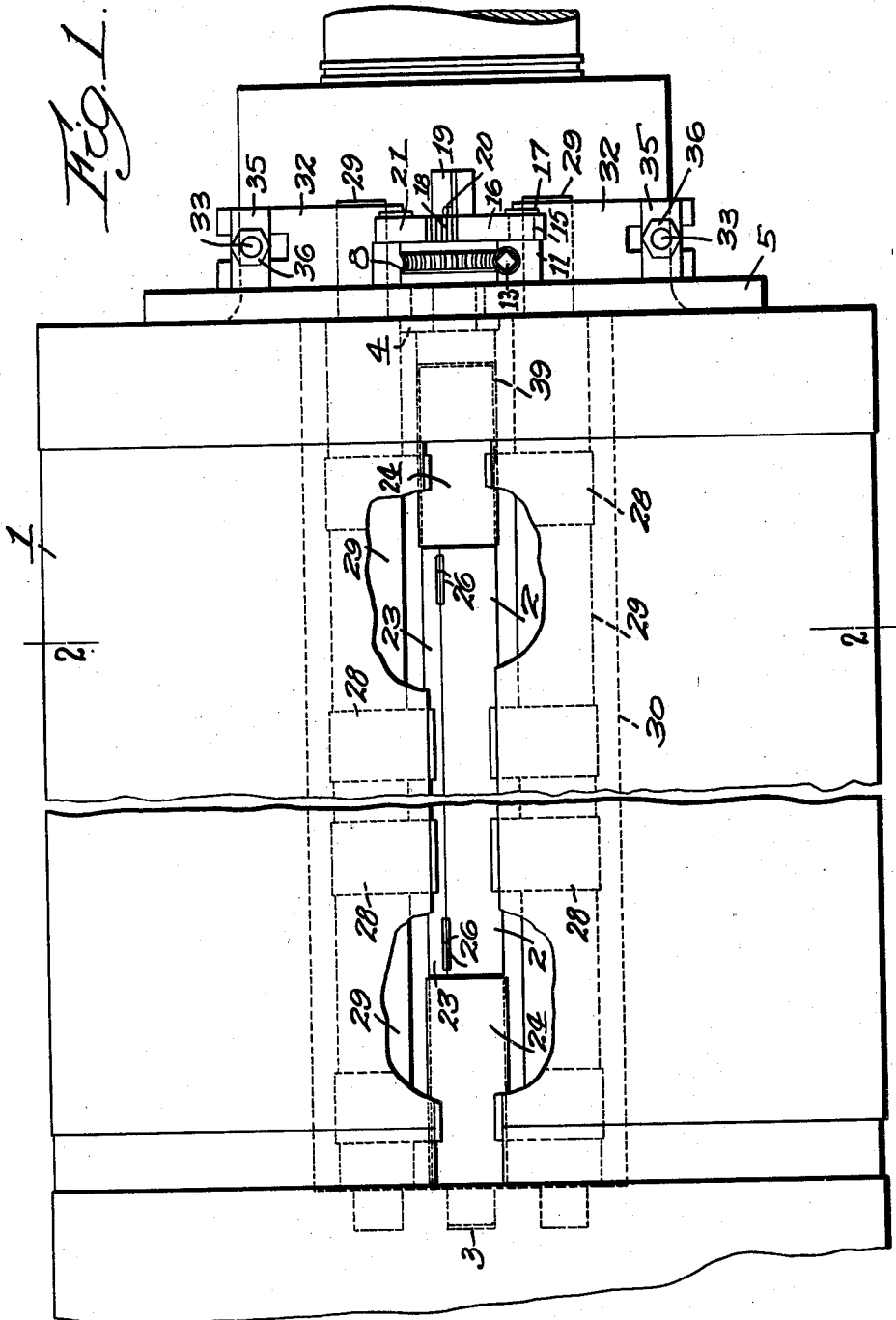
July 4, 1939.

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BLANKET WINDING FOR A PRINTING CYLINDER

Original Filed May 18, 1936 2 Sheets-Sheet 1



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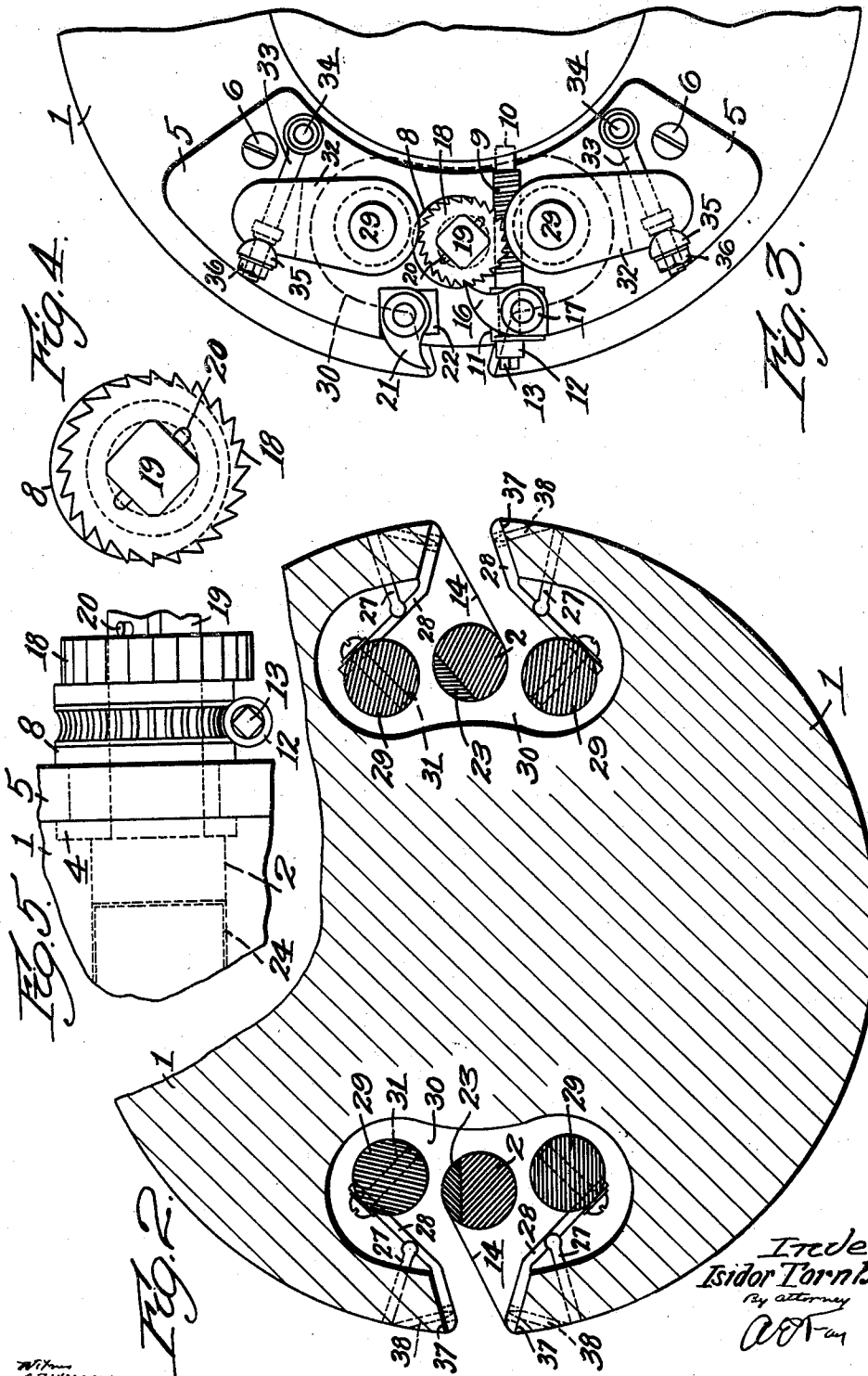
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## UNITED STATES PATENT OFFICE

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## BLANKET WINDING FOR A PRINTING CYLINDER

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Original application May 18, 1936, Serial No. 80,295. Divided and this application December 31, 1936, Serial No. 118,520. Renewed November 25, 1938

## 5. Claims. (Cl. 101—415.1)

This is a division of my application for patent on Reel-rod for a printing cylinder, filed May 18, 1936, Serial No. 80,295.

The principal objects of this invention are to provide a reel rod for an impression cylinder, or the like, which can be manipulated to enable it to grasp the end of the blanket or draw sheet in a very simple manner; to provide means whereby the blanket or draw sheet can be reeled in either direction, and to provide means whereby the blanket, if wound in a skewed position, can be rendered straight by moving one end of the reel rod in whatever direction is required by means, preferably, of an eccentric adjustable bushing in one end of the rod.

Other objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings which show a preferred embodiment of this invention.

Fig. 1 is a side elevation of part of an impression cylinder of a printing press with a preferred embodiment of this invention applied thereto;

Fig. 2 is a sectional view on the line 2—2 of Fig. 1;

Fig. 3 is an end view of the operating mechanism; and

Figs. 4 and 5 are details of the eccentric bushing.

The impression cylinder of a printing press is commonly covered with packing in order that the printing may be made clear and distinct. The usual type of packing or covering is applied by hanging one end of the covering over pins or clamping means and reeling up the other end on a reel rod.

It is difficult to place the reeled up end of a blanket or draw sheet squarely so that it will be drawn up with equal tightness on both edges; moreover, sometimes the blanket itself is not entirely symmetrical and, in any case, it is difficult to attach the blanket or draw sheet to the reel rod in a sufficiently square manner to enable the sheet or blanket, when drawn firmly over the surfaces of the cylinder, to lie firmly at all points against the impression cylinder. If it does not it will cause defects in printing. This invention is designed to overcome these difficulties by changing the position of the end of the forward operating reel rod to take out the skew of the blanket.

The printing cylinder 1 carries a reel rod 2, loosely mounted at one end, in a hole 3, the other end being mounted in a rotatable eccentric bushing 4. The eccentric bushing 4 has a flange on its left hand end, as viewed in Fig. 1, and is mount-

ed in an end-plate 5 which latter is secured to this cylinder 1 by screws 6. A worm wheel 8 is secured to the bushing 4 and, in cooperation with the flange mentioned above, holds the bushing 4 against end motion. The worm wheel 8 is secured to the eccentric bushing 4 and meshes with a worm 9 carried in a hole 10 of the cylinder 1 and a poppet 11 secured to the end plate 5. A collar 12 is pinned to the worm 9. As viewed in Fig. 3 a non-circular member 13 is provided for rotating the worm 9.

It is apparent that, by rotation of this worm, the eccentric bushing 4 may be rotated to throw the end of the reel rod 2 out of alignment with the axis of the cylinder 1. This action may be used to correct any looseness in the draw sheet 14 which is wrapped around the reel rod 2.

A hub 15 of the poppet 11 is provided for the mounting of a pawl 16, a washer 17 and appropriate screw holding the pawl in place. The pawl 16 cooperates with a ratchet wheel 18 carried on a non-circular member 19 of the reel rod 2. A pin 20 serves to keep the ratchet wheel 18 in place on the non-circular member.

An oppositely disposed pawl 21 mounted by a poppet 22 on the end plate 5 is furnished to permit the draw sheet 14 to be operated in a counterclockwise direction as viewed in Fig. 3. When this action is desired the pin 20 is removed and the ratchet 18 reversed so that it will cooperate with the pawl 21.

The other end of the draw sheet or blanket can be placed over blanket pins 27 or be held by tympan clamp fingers 28 carried on a tympan rod 29 journaled in a hole 30 of the cylinder 1 and end plate 5. These tympan clamp fingers 28 are riveted to the tympan rod 29 by rivets 31. An arm 32 is secured to the end of the tympan rod 29 and has its free end bifurcated to accommodate an eye-bolt 33. One end of the eye-bolt is pivoted by a stud 34 on the end plate 5, and the other end carries a half round pin 35 cooperating with a complementary surface of the arm 32. A nut 36, in cooperation with the half round pin 35, can be used to force the arm 32 and tympan rod 29 in a clockwise direction, as shown in Fig. 3. This presses the tympan clamp fingers 28 against a surface 37 of the cylinder 1 to thereby clamp the draw sheet or blanket. Tympan clamp pins 38 are provided, entering holes in the tympan clamping fingers 28, to assist in holding the draw sheet or blanket.

It is thus apparent that a new and useful device is provided for throwing the reel rod out of alignment with the axis of the printing cylinder

to insure the draw sheet or blanket being held firmly against the surface of the impression cylinder.

5 Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed, otherwise than as set forth in the claims, but what I claim is:

10 1. A reel rod for a printing cylinder, capable of winding up thereon a blanket or draw-sheet, and having one end loosely supported and the other end eccentrically mounted, and means for rotating said rod.

15 2. In a printing cylinder, the combination of an eccentrically mounted worm wheel, a reel rod carried at one end on said cylinder and loosely mounted at the other end on said cylinder, and a hand operated worm for turning the worm wheel to skew the position of the reel rod.

20 3. In a device for winding up a blanket or draw sheet on a printing cylinder, the combination of a reel rod having means for holding the end of the flexible blanket or draw sheet, a movable support for one end of the reel rod, and means

for moving said reel rod support to throw the reel rod out of alignment with the printing cylinder.

4. The combination of an eccentrically mounted worm wheel, a rotatable reel rod carried at one end thereby and loosely mounted at the other end, a hand operated worm for turning the worm wheel to skew the position of the reel rod, and means whereby the reel rod is capable of being turned in either direction. 5

10 5. In an operating device for a reel rod, the combination with the reel rod, of a ratchet on its end, a non-circular member, a pawl engaging the ratchet for holding the reel rod against turning backwardly in one direction when the blanket is being wound thereon, a pin by which the ratchet is connected to the non-circular member, means for throwing the reel rod out of alignment with the printing cylinder, and a second pawl for holding the ratchet against moving in the opposite 15 20 direction.

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