

No. 717,139.

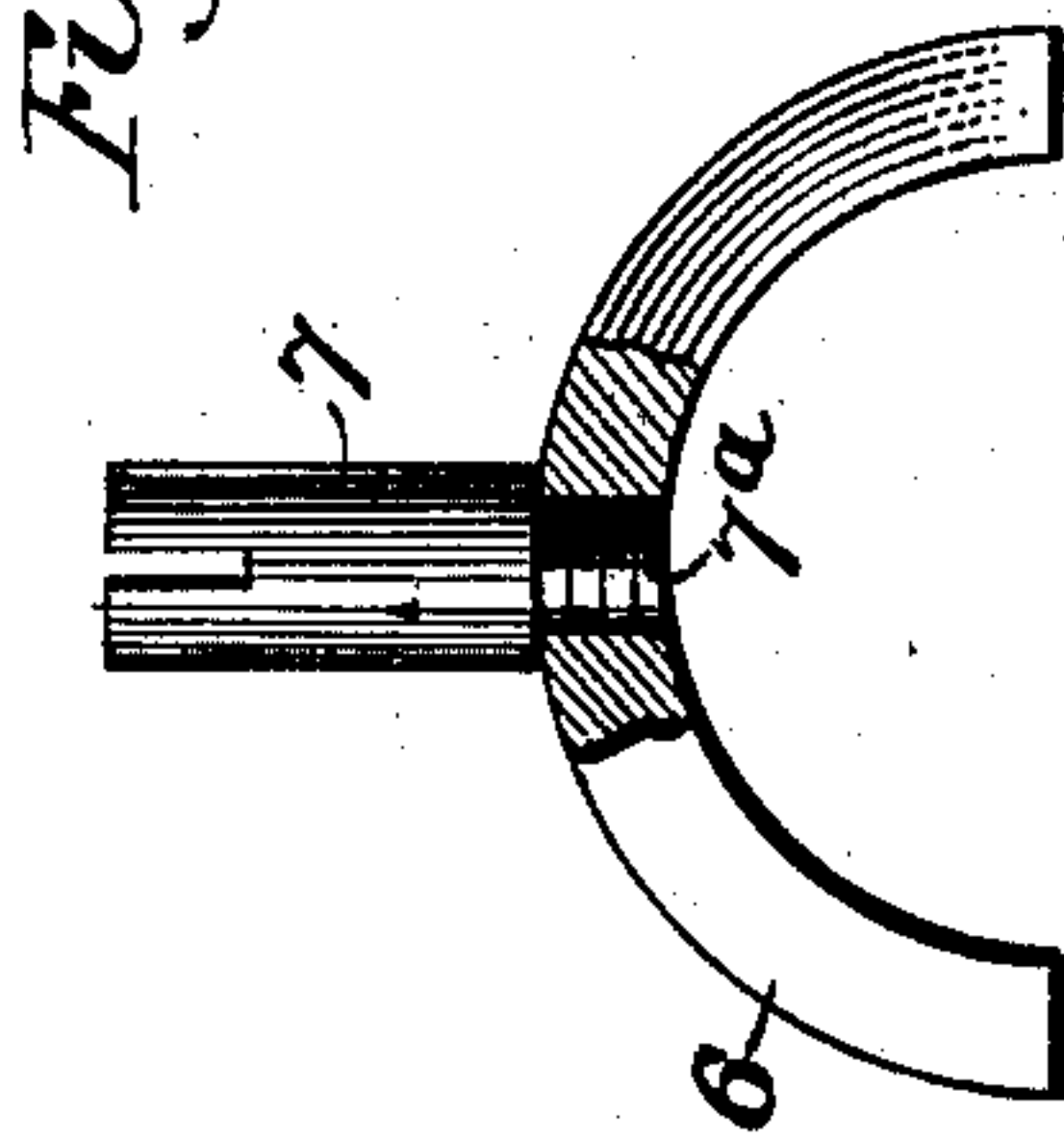
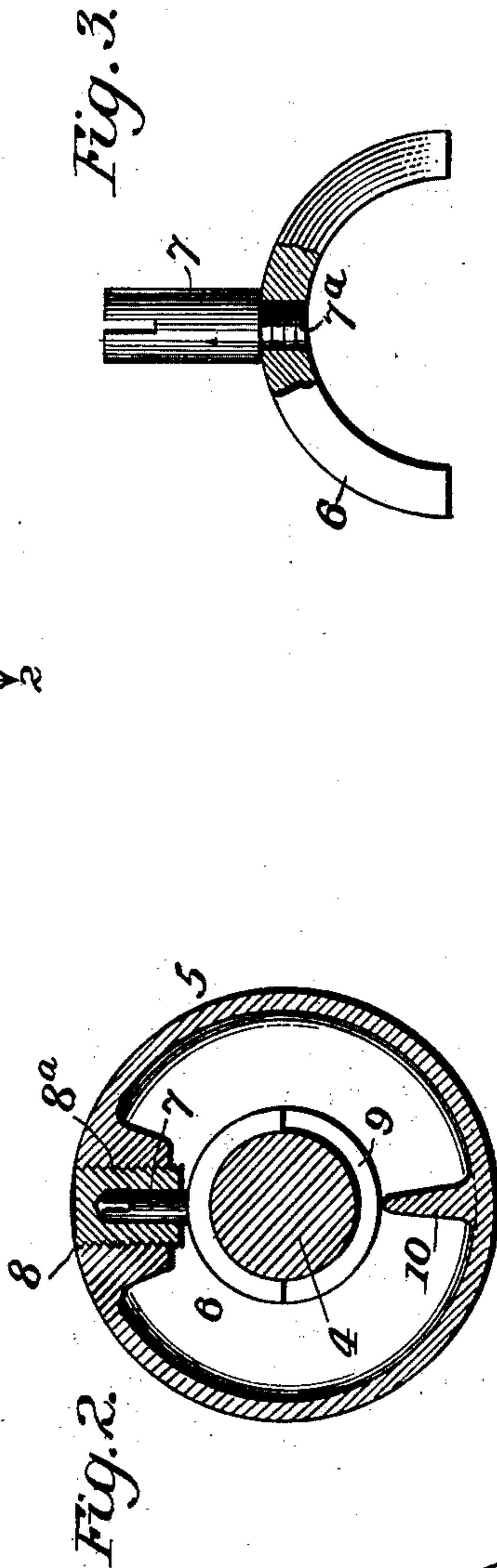
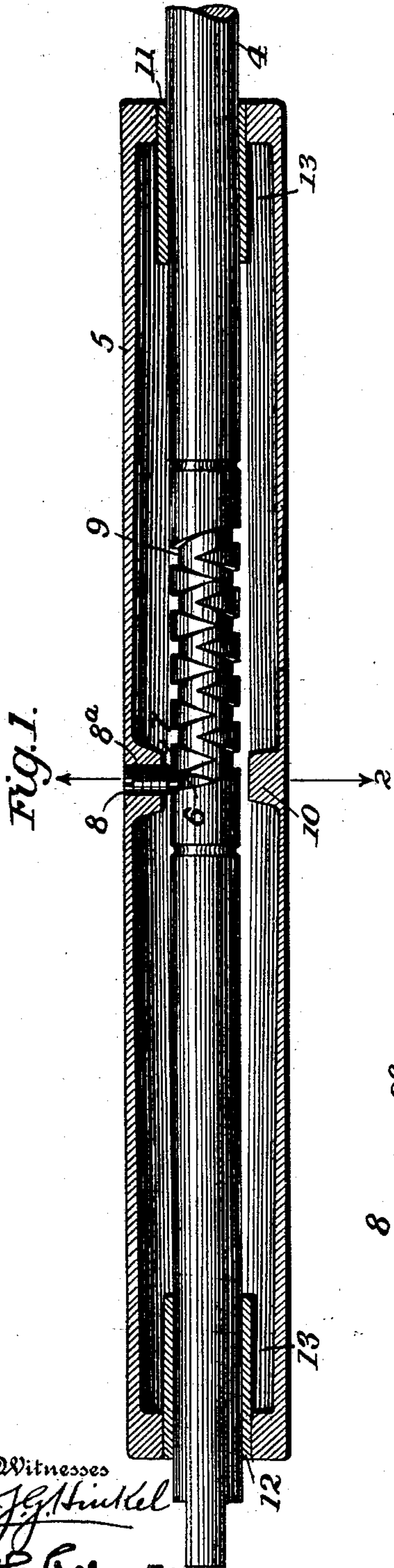
Patented Dec. 30, 1902.

J. THOMSON.

CHANGER FOR INKING APPARATUS FOR PRINTING PRESSES.

(Application filed Feb. 14, 1902. Renewed Oct. 13, 1902.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN THOMSON, OF BROOKLYN, NEW YORK, ASSIGNOR TO JOHN THOMSON PRESS COMPANY, OF JERSEY CITY, NEW JERSEY, AND NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

CHANGER FOR INKING APPARATUS FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 717,139, dated December 30, 1902.

Application filed February 14, 1902. Renewed October 13, 1902. Serial No. 127,185. (No. model.)

To all whom it may concern:

Be it known that I, JOHN THOMSON, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Changers for Inking Apparatus for Printing-Presses, of which the following is a specification.

My invention relates to ink-distributing devices for printing-presses, and more particularly to the self-contained type of distributing-rollers known as "changers;" and it has for its object to improve the construction thereof with the view of obtaining greater durability, facility of manufacture, and ample lubrication; and to these ends the invention consists in a changer embodying the various features of construction and arrangement of parts, substantially as hereinafter more particularly set forth.

In the accompanying drawings, Figure 1 is a longitudinal section of a changer embodying my invention. Fig. 2 is an enlarged transverse section on the line 2 2, Fig. 1; and Fig. 3 is an enlarged detail view, partly in section, of the crescent and spindle.

It is well known to those skilled in the art that the changer of an inking apparatus is subject to excessive wear of the parts, and constructions have been proposed for the purpose of improving the operation of such changers and overcoming the known difficulties to which their use is subject, and in my prior application, Serial No. 88,764, filed January 7, 1902, I have shown and claimed one means of attaining these objects, and in my present construction I have provided other means for obtaining improved results.

Referring to the accompanying drawings, 5 represents a changer-sleeve, which is made in one piece and is provided with proper bearings for the changer-shaft 4, which, as is well known, is usually secured to some portion of the inking apparatus, and the sleeve rotates thereon and at the same time travels back and forth to a greater or less extent on the shaft to produce the well-known distributing effect of the ink. The shaft 4 in this instance is provided with a duplex or cross screw-thread 9, with which a switch or pivoted cres-

cent 6 engages to cause the reciprocation of the sleeve in a well-known way. It is desirable that the sleeve be integral, and when this is the case it is necessary to provide a construction by which the switch or crescent can be secured in place and can be properly adjusted in the screw-thread. In order to accomplish this in the present instance, I make the switch in two parts, one being the crescent-shaped portion 6 and the other a bearing-spindle 7, and these are detachably connected together in some suitable way, preferably by providing the spindle 7 with an extended screw-threaded portion 7^a, adapted to fit a corresponding screw-threaded opening in the body of the crescent portion 6. The sleeve 5 is provided with an opening 8^a, through which the spindle 7 can be introduced and secured to the crescent 6, and this opening is provided with a bearing for the spindle shown in the form of a hollow screw 8, fitting the opening 8^a and adjustable therein.

As set forth in my former application above referred to, it is desirable in order to secure copious lubrication of the crescent and the thread of the shaft to utilize the sleeve as an oil-reservoir, and in the present construction the sleeve is shown as forming a chamber which is larger at its center and tapers to a reduced diameter at the ends of the sleeve, so that when the oil-supply is reduced it will tend to concentrate toward the longitudinal center of the chamber. In order to aid in the distribution of the oil, the sleeve is provided with a rib or projection 10, preferably arranged opposite the opening 8^a, so that upon each rotation of the sleeve 5 the rib is more or less immersed in the oil and acts practically as a bucket to carry the oil up, so that it will drip from the rib directly upon the screw-thread at a point substantially diametrically opposite the point of engagement of the crescent therewith, so that the screw-thread will be progressively lubricated to insure the practically frictionless movement of the crescent therein. To prevent the oil in the chamber from escaping, as when handling the chamber or when it is at an angle or on its end, I provide tubular bushings 11 12, which are inserted in the ends of the

sleeve and which preferably extend inward to a considerable distance, forming closed pockets 13 at the ends of the sleeve from which the oil cannot escape, and these bushings also form extended bearings for the shaft 4.

With this construction it will be seen that the parts can readily be assembled by placing the crescent 6 in the thread upon the shaft 4 and introducing the shaft through one of the bushings, as 11, and then the spindle 7 is introduced through the opening 8^a and secured to the crescent, when the hollow screw 8 of the spindle is applied and adjusted, and the sleeve forms a practically-closed chamber for the oil or lubricant, which of course can be introduced therein through the openings at the end or through the opening 8^a for the hollow screw. When the changer is in position, the bulk of the oil or lubricant will tend to accumulate toward the central portion of the sleeve, and even when there is a relatively small quantity therein it will be concentrated to the position desired to be applied to the thread and crescent or switch.

What I claim is—

1. The combination with a changer-shaft having a screw-thread, of a sleeve mounted thereon forming a chamber and carrying a switch engaging the screw-thread on the shaft, and a projection on the sleeve extending into the chamber adjacent the switch, substantially as described.

2. The combination with a changer-shaft

having a screw-thread, of a sleeve mounted thereon forming a chamber and carrying a switch engaging the screw-thread on the shaft, the chamber being enlarged at or near its center and tapering toward the ends, and an inward projection arranged adjacent the switch, substantially as described.

3. The combination with a changer-shaft having a screw-thread, of a sleeve mounted thereon forming a chamber, a switch comprising a crescent and a separable spindle, and means for securing the switch to the sleeve, substantially as described.

4. The combination with a changer-shaft having a screw-thread, of a sleeve mounted thereon forming a chamber, a switch comprising a crescent and a separable spindle, and a hollow screw secured in the sleeve and forming a bearing for the switch, substantially as described.

5. A changer comprising a shaft having a screw-thread, a hollow sleeve having tubular bushings at its ends, a two-part switch, a hollow screw for the switch, and an internal projection arranged adjacent to the switch, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN THOMSON.

Witnesses:

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