

No. 729,097.

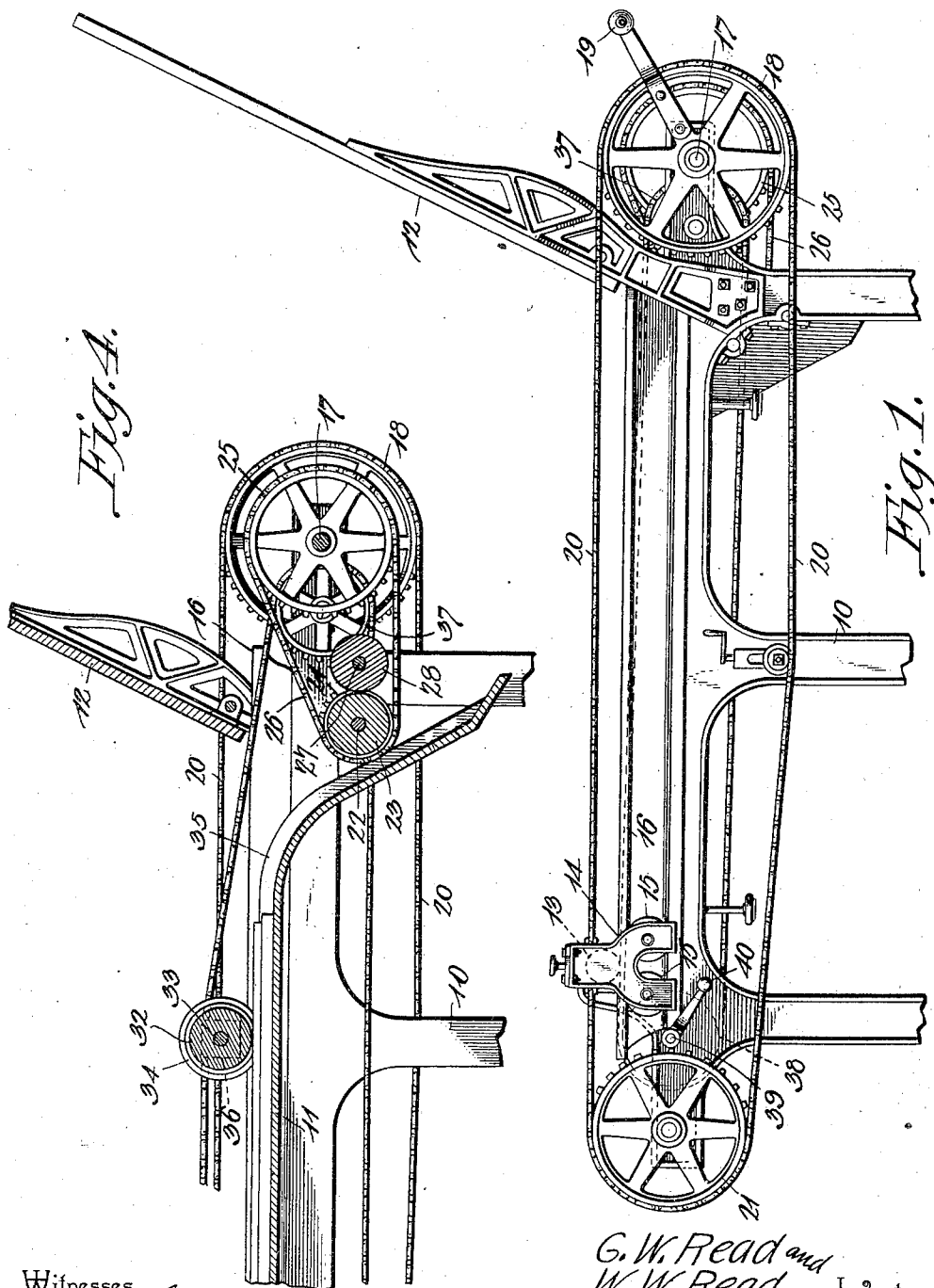
PATENTED MAY 26, 1903.

G. W. & W. W. READ.
INKING ATTACHMENT FOR PRINTING PRESSES.

APPLICATION FILED OCT. 21, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
E. F. Stewart
J. M. E. Parker

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W. W. Read, Inventors.
by *C. A. Snow & Co.*
Attorneys

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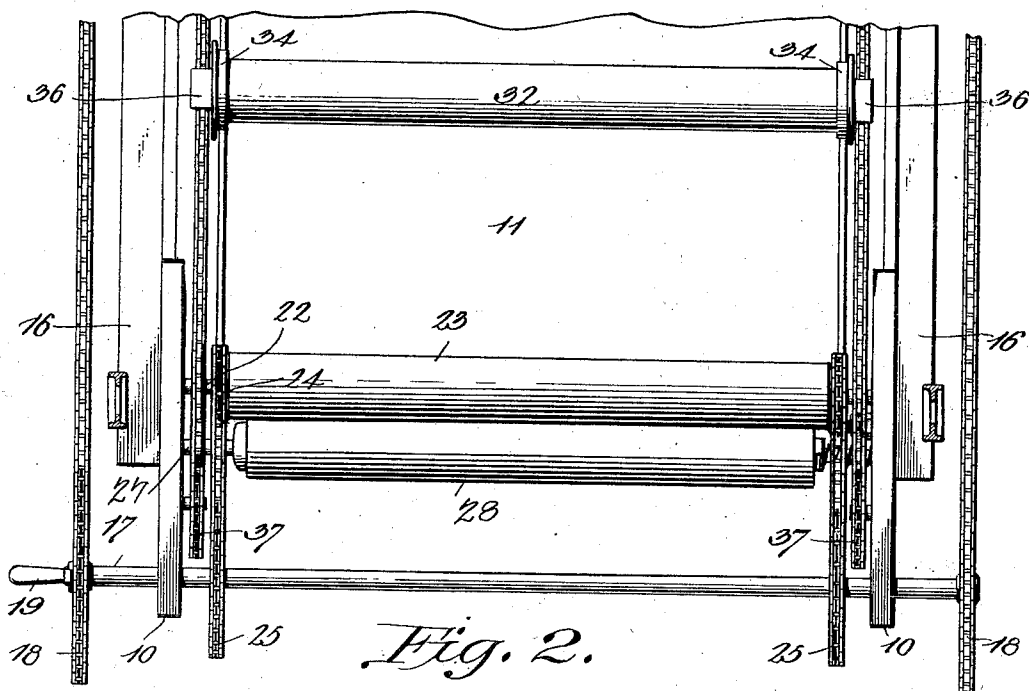


Fig. 2.

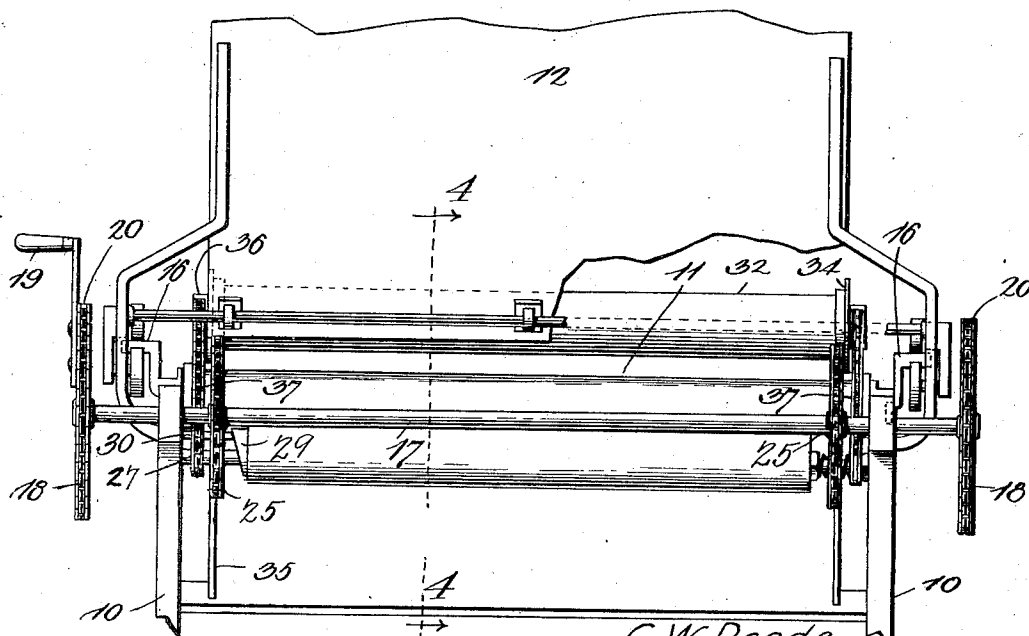


Fig. 3.

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UNITED STATES PATENT OFFICE.

GEORGE W. READ AND WILLIAM W. READ, OF AMITE CITY, LOUISIANA.

INKING ATTACHMENT FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 729,097, dated May 26, 1903.

Application filed October 21, 1902. Serial No. 128,198. (No model.)

To all whom it may concern:

Be it known that we, GEORGE W. READ and WILLIAM W. READ, citizens of the United States, residing at Amite City, in the parish of Tangipahoa and State of Louisiana, have invented a new and useful Inking Attachment for Printing-Presses, of which the following is a specification.

This invention relates to certain improvements in the construction of printing-presses of that type known as the "hand cylinder-press" and in which the operation of printing is effected by moving a revoluble pressure-roller over a tympan carrying a sheet of paper and resting on the type-form.

The principal object of the invention is to provide a simple and economical form of inking device by which the ink may be distributed in an even and regular manner to an inking-roller having a reciprocating movement over the type-form.

A still further object of the invention is to provide for the operation of the distributing-roller during the movement of the pressure-cylinder over the tympan in order that the type-inking roller may receive a fresh supply of ink after the completion of each imprinting operation.

With these and other objects in view the invention consists in the novel construction and arrangement of parts hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a side elevation of a hand cylinder-press illustrating the application thereto of an inking mechanism constructed in accordance with our invention. Fig. 2 is a plan view of a portion of the press, illustrating the inking-rollers and their operating mechanism. Fig. 3 is an elevation of that end of the press at which the inking mechanism is located. Fig. 4 is a detail sectional view of the same on the line 4 4 of Fig. 3.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

The framework of the press comprises opposite side members 10, forming a support for a bed 11, on which the chase and type-form are situated.

Near one end of the press is hinged a tympan 12, provided with the usual paper-holding clips, the tympan being lowered over the type and being pressed into contact with the type by the pressure-cylinder 13. The ends of the cylinder are reduced in diameter and fit in suitable boxes carried by trucks 14, disposed one at each side of the press, and provided with wheels 15, adapted to the usual supporting-tracks 16, the tracks being vertically adjustable in order to increase or decrease the pressure exerted by the cylinder on the upper surface of the tympan. At one end of the frame are bearings for the support of a shaft 17, carrying a pair of sprocket-wheels 18, to one of which is secured a hand-crank 19, and over these sprocket-wheels run link belts 20, the ends of the belts being secured to the trucks 14. The link belts are guided by sprocket-wheels 21, disposed at the opposite ends of the press, and are operated by the crank in the usual manner for effecting a reciprocating movement of the cylinder.

At one end of the machine are bearings for the support of a transversely-disposed shaft 22, carrying an ink-distributing roller 23, provided at one end with a sprocket-wheel 24, driven by a sprocket-wheel 25, secured to the shaft 17 through the medium of a link belt 26, the roller being turned during the reciprocating movement of the pressure-cylinder. To the rear of shaft 22 is a second shaft 27, carrying an ink-roller 28, which is revolved by frictional contact with the roller 23, and in order to more effectually distribute the ink this lower roller 28 is provided at one end with a cam 29, adapted to engage a stationary pin or lug 30, projecting from the frame, in order to impart a longitudinal reciprocating movement to said roller, although the lower roller may be reciprocated by any of the ordinary mechanisms employed for the purpose and may be positively driven from any movable part of the press.

The inking-roller 32 is carried by a spindle 33, having at each end a small disk or roller 34, adapted to a guiding-track 35, one of such tracks being located at each side of the press in order to properly support the roller when a small chase is used or where there is but little type in the form. Where a large form is used, these tracks are not necessary and may

readily be removed from position. The track-ways are arranged on lines parallel with the type-form and at each end of the press are downwardly inclined to follow the contour of the bed of the press, the inclined portions serving to permit the lowering of the inking-roller for contact with the roller 23, from which it receives a fresh supply of ink, and to permit the same to pass below and out of the path of movement of the pressure-cylinder at the opposite end of the press. The ends of the roller-spindle are adapted to bearings in plates 36, to which are connected the opposite ends of a link belt, one of such belts being arranged at each side of the press and passing at one end over sprocket-wheels 37, mounted on studs carried by the frame, and at the opposite end engaging sprocket-gears 38, mounted on a shaft 39, which is provided with a hand-crank 40, the crank being turned to impart reciprocating movement to the roller.

In the operation of the device, the tympan being elevated, the crank 40 is turned to move the inking-roller from contact with the roller 23 and travel the same up the incline at the end of the press-bed and thence over the type-form to the opposite end of the bed, where the roller runs down the inclined portion out of the way of the pressure-cylinder. The tympan is then lowered, the sheet of paper carried thereby being moved into contact with the type, and then the pressure-cylinder is forced over the tympan and the latter passes to the direction of the type. The inking-roller may rest during the printing operation at that end of the press opposite the inking-rollers 23 and 28, but must be returned thereto in order to receive a fresh supply of ink.

The device is of simple and economical construction and of such character that it may be readily applied to presses in ordinary use.

While the construction herein described, and illustrated in the accompanying drawings, is the preferred form of the device, it is obvious that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus described our invention, what we claim is—

1. The combination with a hand cylinder-press, of a tympan pivoted near one end of the press, a plurality of movable distributing-rollers arranged at the tympan end of the press, a type-inking roller adapted for contact with said rollers, and means for reciprocating said roller over the type-form.

2. The combination with a hand cylinder-press, of a tympan pivoted near one end of the press, distributing-rollers disposed at the

tympan end of the press, a type-inking roller adapted for contact with said distributing-rollers, and means for reciprocating said roller over the type-form.

3. The combination with a hand cylinder-press, of the bed having inclined portions at each end, distributing-rollers disposed at one end of the press, an inking-roller adapted to travel over the type-bed, means for operating the inking-roller, an impression-cylinder, and means independent of the inking-roller mechanism for actuating said impression-cylinder.

4. The combination with a hand cylinder-press, of the bed having inclined portions at each end, distributing-rollers disposed at one end of the press, an inking-roller adapted for contact with the distributing-rollers, means for traveling the inking-roller over the bed and the inclined portions thereof to points below the horizontal plane of the bed to thereby permit free movement of the impression-cylinder.

5. The combination with a hand cylinder-press, of the distributing-rollers, an inking-roller, an impression-cylinder, and independent operating means disposed respectively at opposite ends of the press for independently actuating the inking-roller and the impression-roller.

6. The combination in a hand cylinder-press, of the type-bed, a tympan, an impression-roller adapted for movement in a horizontal plane over the tympan, an inking-roller adapted to travel from end to end of the bed of the press, and means disposed at opposite ends of the bed for effecting a downward movement of the inking-roller out of the path of movement of the impression-roller.

7. The combination with a hand cylinder-press, of the distributing-rollers disposed at one end of the press, link belts and sprocket-gear connections between one of said rollers and the main shaft of the impression-cylinder-actuating mechanism, means for longitudinally reciprocating said distributing-rollers, a bed having inclined portions at each end, an inking-roller adapted to travel over the surface of the bed and the inclined portions of each end thereof, link belts connected to the inking-roller, a cranked shaft, sprocket-gears thereon connected to said link belts, and idler-sprockets at the opposite end of the press for receiving and guiding said link belts.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

GEORGE W. READ.
WILLIAM W. READ.

Witnesses:

LOUIS F. LEFEVRE,
BOLIVAR EDWARDS.