

O. S. BEYER.
 INKING MECHANISM FOR PLATEN PRESSES.
 APPLICATION FILED AUG. 17, 1908.

993,572.

Patented May 30, 1911.

2 SHEETS—SHEET 1.

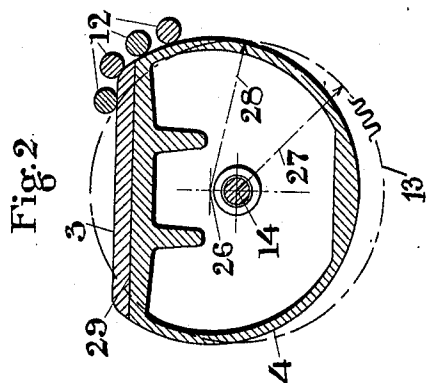
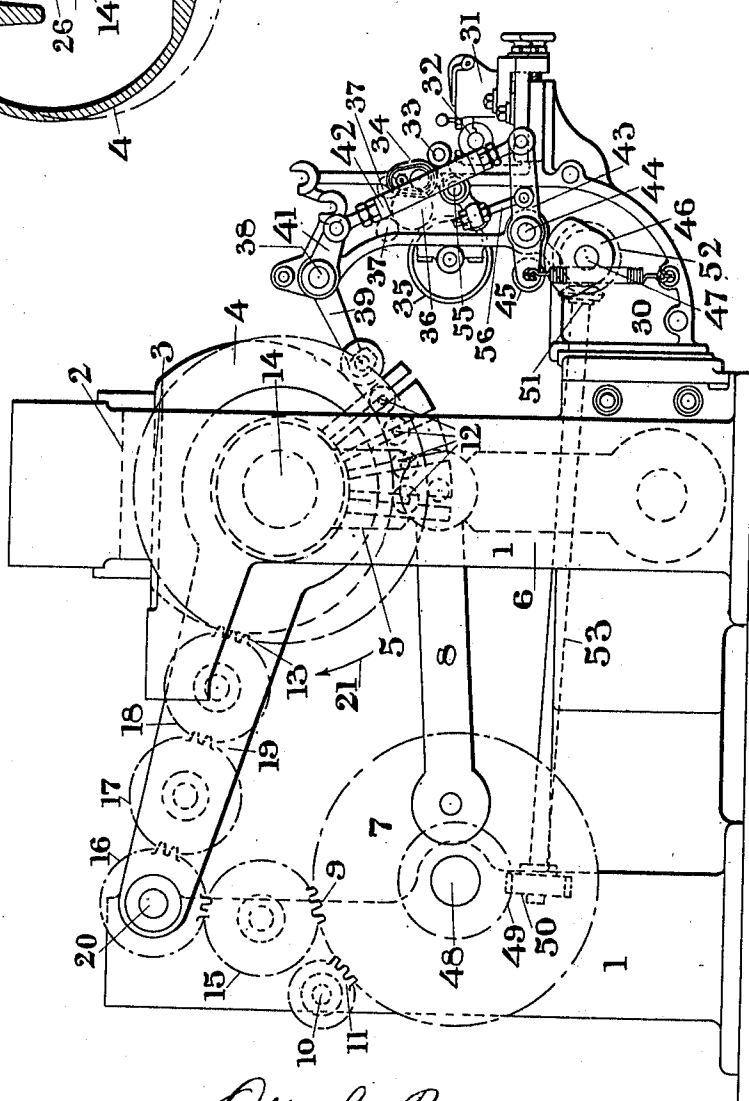


Fig. 1



Witnesses
 Louise Enderle
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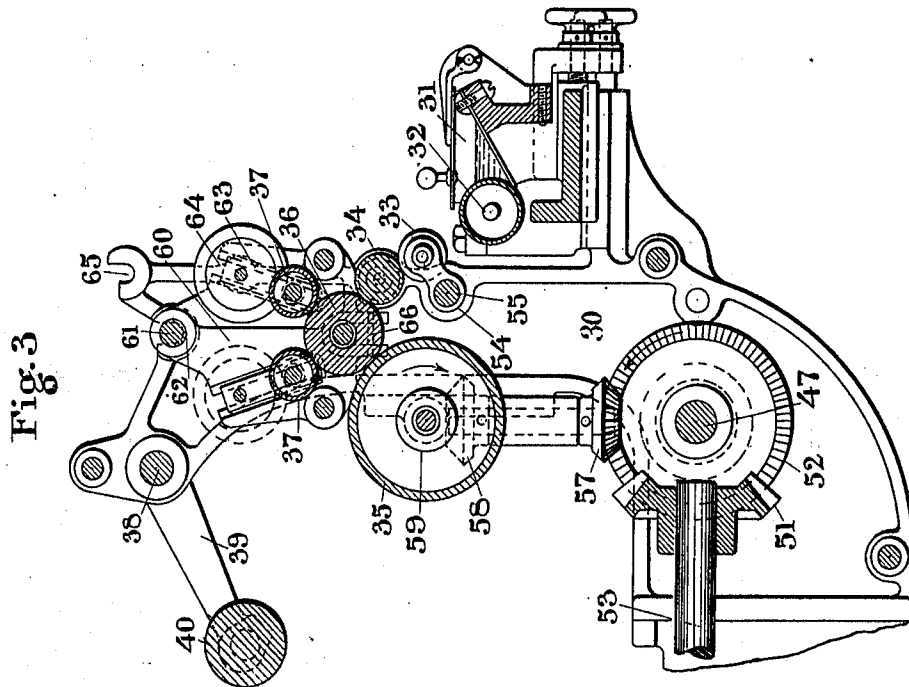
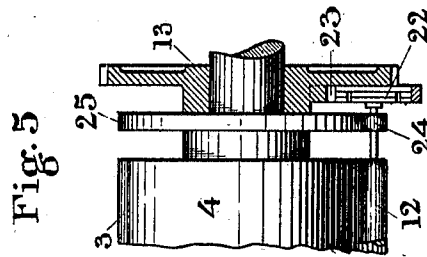
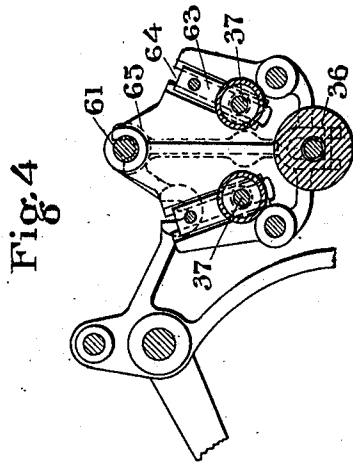
Otto S. Beyer Inventor
 By his Attorney
 Ivan E. G. Horrigsburg

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2 SHEETS—SHEET 2.



Witnesses
 Louise Underle
 Thoma Hoff

Otto S. Beyer, Inventor
 By his attorney
 Frank E. A. Yonigsberg.

UNITED STATES PATENT OFFICE.

OTTO S. BEYER, OF EAST RUTHERFORD, NEW JERSEY, ASSIGNOR TO AUTOMATIC PLATEN PRESS COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

INKING MECHANISM FOR PLATEN-PRESSES.

993,572.

Specification of Letters Patent.

Patented May 30, 1911.

Application filed August 17, 1908. Serial No. 448,803.

To all whom it may concern:

Be it known that I, OTTO S. BEYER, a citizen of the United States, and resident of East Rutherford, in the county of Bergen and State of New Jersey, have invented certain new and useful Improvements in Inking Mechanism for Platen-Presses, of which the following is a specification.

This invention relates to improvements in the inking mechanism for a platen press of the type as shown and described in an application filed by me on the 21st day of April 1908, Ser. No. 428,459. The said application refers to a platen press in which the form is carried by an oscillating cylinder, and the object of this invention is to provide an inking mechanism for use in combination with such a form carrying member; that is, an inking mechanism comprising form rollers adapted to rotate around and ink the form, and the necessary ink distributing rollers interposed between the said form and the usual ink fountain.

More particularly it is the object of the invention to so construct the inking mechanism, that a uniform speed of the form rollers may be obtained, and also to provide means for quickly getting at the different distributing rollers for making ready or cleaning and also for separating said rollers when the press is idle.

In the following specification and in the accompanying drawings my invention is fully disclosed and illustrated in its preferred form, but changes may of course be made within the scope of the claims; and my inking mechanism may be used on other type of presses than the one referred to.

In the said drawings Figure 1 is a side elevation of a platen press equipped with an inking mechanism embodying my invention. Fig. 2 is a sectional detail of the form carrying member and the form rollers, Fig. 3 is a sectional view through the inking mechanism and Fig. 4 is a detail view showing some of the parts in Fig. 3 in a different position. Fig. 5 is a detail view of parts of the form rollers.

The reference numeral 1 indicates the frame for suitably supporting the different parts.

2 is the stationary platen and 3 the form mounted on the form carrier 4, which is suspended by the arms 19 pivoted at 20 and is oscillated by the toggle links 5 and 6 con-

nected to and operated from crank disk 7 by connecting link 8. The disk 7 carries a gear 9 which is driven from the main shaft 10 by pinion 11.

The form rollers are denoted by 12 and are carried by the gear 13, which rotates around the shaft 14 and is driven from pinion 11 by the gears 15, 16, 17 and 18 as shown. In this manner the form rollers are rotated around the form once to every impression in the direction of the arrow 21. The form rollers 12 are mounted in carriers 22, which slide in slots 23 and are guided by the cam rolls 24 running on the cam 25, so that during their rotation the form rollers will run on the surface of the cylinder 4 and also ink the form 3.

It will be understood that various means may be employed for making the form rollers lie closely to the form cylinder and form during their rotation, but as my invention does not relate to such means, I have not shown any, besides the art contains many devices for accomplishing this object. I have, however, invented certain improvements in the manner of driving the form rollers with relation to the form and this will now be explained.

As will be seen from Fig. 2 the center of the gear 13 is the center of the shaft 14, but the center of the form cylinder is at 26, but the radius of the gear, indicated by the line 27, is equal in length to the radius 28 of the form cylinder. In other words, the distance from the center of the gear to the surface of the form 3 has been increased the distance from 14 to 26; hence the speed of the rollers 12 as they pass over the form is very nearly the same as the speed with which they travel over the cylinder 4, whereby a more uniform drive of the form rollers is obtained, hence a better ink distribution and less wear of the rollers. Moreover, the angles formed at the edges of the form and the ends of the cylindrical surface are in this instance less pointed than would otherwise be the case so that the form rollers pass smoothly over the corners at 29.

In brackets 30, one on each side, are mounted the other various parts contained in the inking mechanism.

31 indicates the ink fountain with the fountain roll 32, from which the ink is taken by the brayer roll 33 and put on the roll 34 which rotates by contact from roll

35 through roll 36. The usual reciprocating rolls are denoted by 37, 37. Pivoted on shaft 38 are arms 39 carrying the ductor roll 40 which takes the ink from roll 35 and puts it on the cylinder 4 and to this end the shaft 38 is rocked by means of link 41, connection 42 and lever 43, which latter is pivoted at 44 and carries cam roll 45 co-operating with cam 46 on shaft 47, which is driven from shaft 48 by spiral gears 49 and 50 and bevel gears 51 and 52. The gears 50 and 51 are carried by the shaft 53.

The brayer roll 33 is carried in arms 54 on shaft 55 which is rocked by means of the connection 56 pivoted to the lever 43, and the roll 35 is driven from bevel gear 52 by bevel gears 57, 58, and 59.

For the purpose of easily getting at the various parts the rolls 36 and 37 are mounted in a saddle 60 which by the rod 61 hangs in seats 62 in the brackets 30. In this position the roll 36 rests loosely on the rolls 34 and 35 and in turn supports the rolls 37 which are mounted in blocks 63 sliding in slots 64 in the saddle 60. But when it is desired to separate the rolls the saddle 60 is lifted out of the seats 62 and hung in seats 65 and in this position the roll 36 drops till its journals rest on the studs 66 and the rolls 37 drop until the blocks 63 rest on the bottom of the slots 64. This is shown in Fig. 4 and thus it will be seen that I have provided means for automatically separating the rolls carried by the saddle and that thereby it is also made easier to gain access to the lower rollers.

The operation and construction are thought to be clear from the above and to fully set forth the various parts contained in and the advantages of this invention.

What I claim is:

1. The combination of a form carrying member, a cylindrical ink distributing sur-

face thereon, inking roller, means for rotating the latter around and in contact with the said form carrying member to ink the form, a source of ink, a brayer roll, other ink rollers, a ductor roll for transferring the ink from the said other ink rollers to the said cylindrical ink distributing surface and a cam for operating both the said brayer and the said ductor rollers.

2. The combination of a form member, a flat form, a cylindrical inking surface on the said member, a shaft fixed in the latter and below the center of the said cylindrical inking surface, a gear journaled on the said shaft and provided with a plurality of radial slots, ink rollers slidably mounted in the said slots and a cam fixed on the said shaft for guiding the said ink rollers around the said form member.

3. The combination of a form member, ink rollers adapted to rotate around the same, a ductor roll for supplying ink to the form, a cam, operating connections between said cam and the said ductor roll for operating the latter, an ink fountain, a brayer roll and operating connections for the same pivoted on and operated by the aforesaid operating connections.

4. The combination of a form, inking rollers therefor, a source of ink, a brayer roll, other ink rollers, a ductor roll interposed between the latter and the said form, a cam, an oscillating lever operated by the said cam and connections pivoted on the said lever for operating both the said brayer and the said ductor roll.

Signed at New York in the county of New York and State of New York this 11th day of August A. D. 1908.

OTTO S. BEYER.

Witnesses:

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ALFRED A. THRESHER.