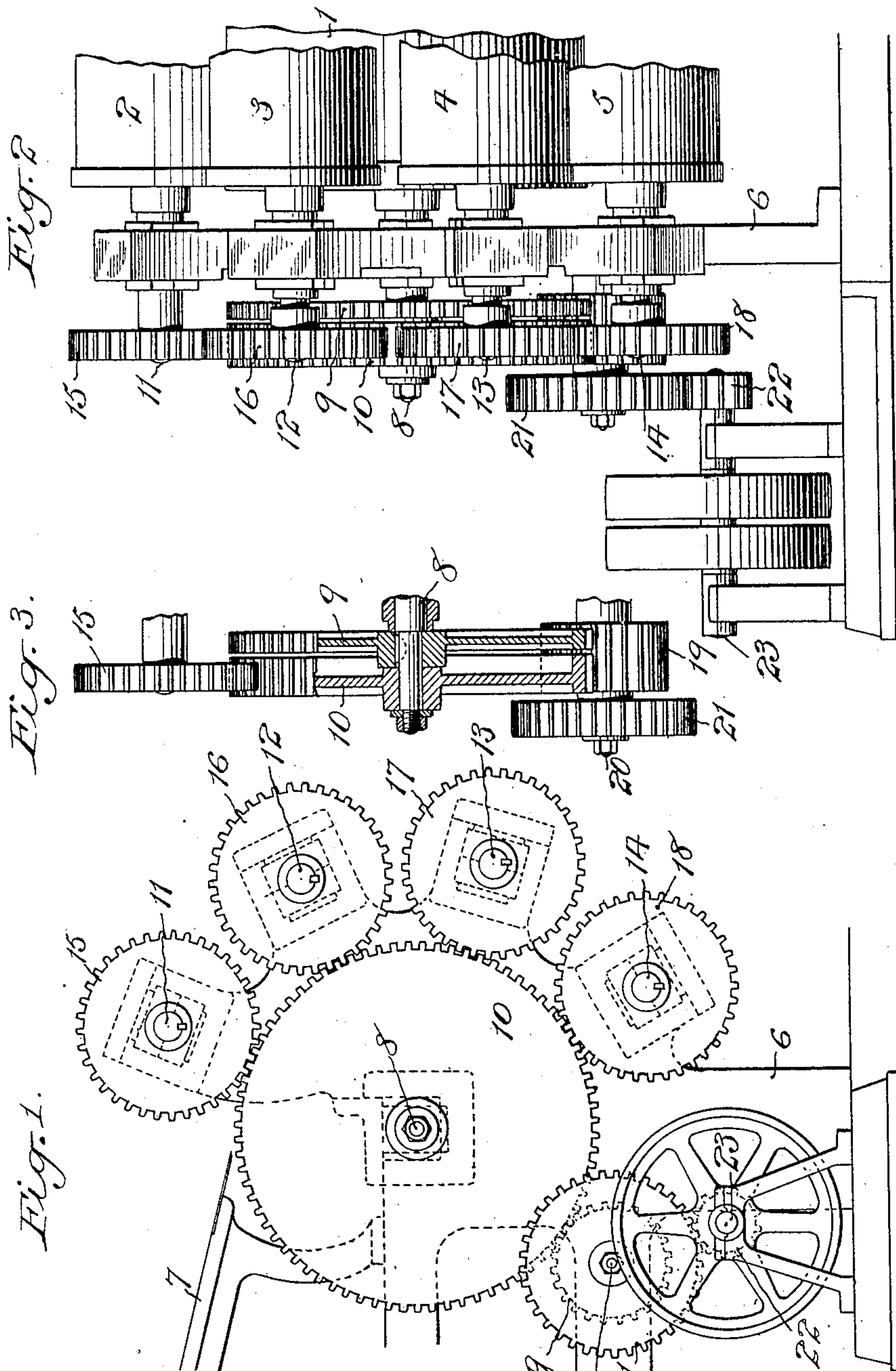


E. E. BABCOCK.  
 DRIVING MECHANISM FOR MULTICOLOR PRINTING PRESSES.  
 APPLICATION FILED MAR. 5, 1908.

906,674.

Patented Dec. 15, 1908.



Witnesses:  
 F. George Barry.  
 Henry Shume.

Inventor:  
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 by attorneys  
 Brinn & Swann



# UNITED STATES PATENT OFFICE.

ELMER E. BABCOCK, OF STONINGTON, CONNECTICUT, ASSIGNOR TO C. B. COTTRELL & SONS COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

## DRIVING MECHANISM FOR MULTICOLOR-PRINTING PRESSES.

No. 906,674.

Specification of Letters Patent.

Patented Dec. 15, 1908.

Application filed March 5, 1908. Serial No. 419,287.

*To all whom it may concern:*

Be it known that I, ELMER E. BABCOCK, a citizen of the United States, and resident of Stonington, in the county of New London and State of Connecticut, have invented a new and useful Improvement in Driving Mechanism for Multicolor-Printing Presses, of which the following is a specification.

The object of this invention is to provide certain improvements in the construction, form and arrangement of the gearing of the driving mechanism of a multicolor printing press whereby a smooth and even movement of the plate and impression cylinders is produced, thus obtaining superior results in the finished product of the press owing to the absolute elimination of any drag of the cylinders.

A practical embodiment of this invention is represented in the accompanying drawings in which—

Figure 1 is a side elevation of so much of a multicolor printing press as will give a clear understanding of the application of this invention thereto. Fig. 2 is an end view of the same at one side of the press, and Fig. 3 is a detail end view taken partially in section to show more clearly the mounting of the gears on the impression cylinder shaft.

The multicolor printing press is herein shown as a four color press, the impression cylinder being denoted by 1 and the four plate cylinders by 2, 3, 4, 5. The side framing of the machine is denoted by 6 and forms a suitable support for the bearings of the several cylinder shafts. A suitable sheet feeding table 7 is provided in position to feed the sheets to the press. The shaft 8 of the impression cylinder 1 has a spur gear 9 keyed thereto and a spur gear 10 loosely mounted thereon. The shafts 11, 12, 13, 14, of the plate cylinders 2, 3, 4, 5, have fixed thereto spur gears 15, 16, 17, 18, which mesh with the spur gear 10 loosely mounted on the impression cylinder shaft 8. The loose gear 10 and the fast gear 9 both mesh with and are driven by a wide faced spur gear 19 fixed to rotate with a shaft 20, which shaft is also provided with a spur gear 21 which meshes with a driving spur gear 22 of the pulley shaft 23, which shaft is driven from any suitable source of power, not shown herein. The plate cylinders are provided

with continuous bearers which may be brought into contact with the continuous bearer on the impression cylinder and thus act to further assist in obtaining a uniform speed of the several cylinders.

From the above description it will be seen that the plate cylinder gears are all driven from the pulley shaft gear 22, through the gears 21, 19 and 10, while the impression cylinder gear 9 is driven from the pulley shaft gear 22 through the gears 21 and 19. It has been found that this arrangement of gearing absolutely eliminates any tendency of the cylinders to drag or to drive unevenly.

What I claim is:

1. A driving mechanism for multicolor printing presses, comprising an impression cylinder gear, plate cylinder gears and a common gear intermeshing with the impression cylinder gear and driving the plate cylinder gears.

2. A driving mechanism for multicolor printing presses, comprising an impression cylinder gear, plate cylinder gears, a loose gear for driving the plate cylinder gears and a common gear intermeshing with both the loose gear and the impression cylinder gear.

3. A driving mechanism for multicolor printing presses, comprising a fixed gear and a loose gear on the impression cylinder shaft, a common gear intermeshing with both the fixed gear and the loose gear for driving them, and plate cylinder gears driven from the loose gear.

4. A driving mechanism for multicolor printing presses comprising a fixed gear and a loose gear on the impression cylinder shaft, a driving shaft, its gear, an intermediate shaft having one gear meshing with the driving shaft gear and another gear meshing with both the fixed gear and the loose gear, and plate cylinder gears meshing with the said loose gear.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two witnesses, this twenty-fourth day of February A. D. 1908.

ELMER E. BABCOCK.

Witnesses:

A. R. STILLMAN,  
G. BURDICK.