No. 702,421. Patented June 17, 1902.

S. G. GOSS.

MEANS FOR DRIVING PRINTING PRESSES.

(Application filed Nov. 29, 1897.)

(No Model.)

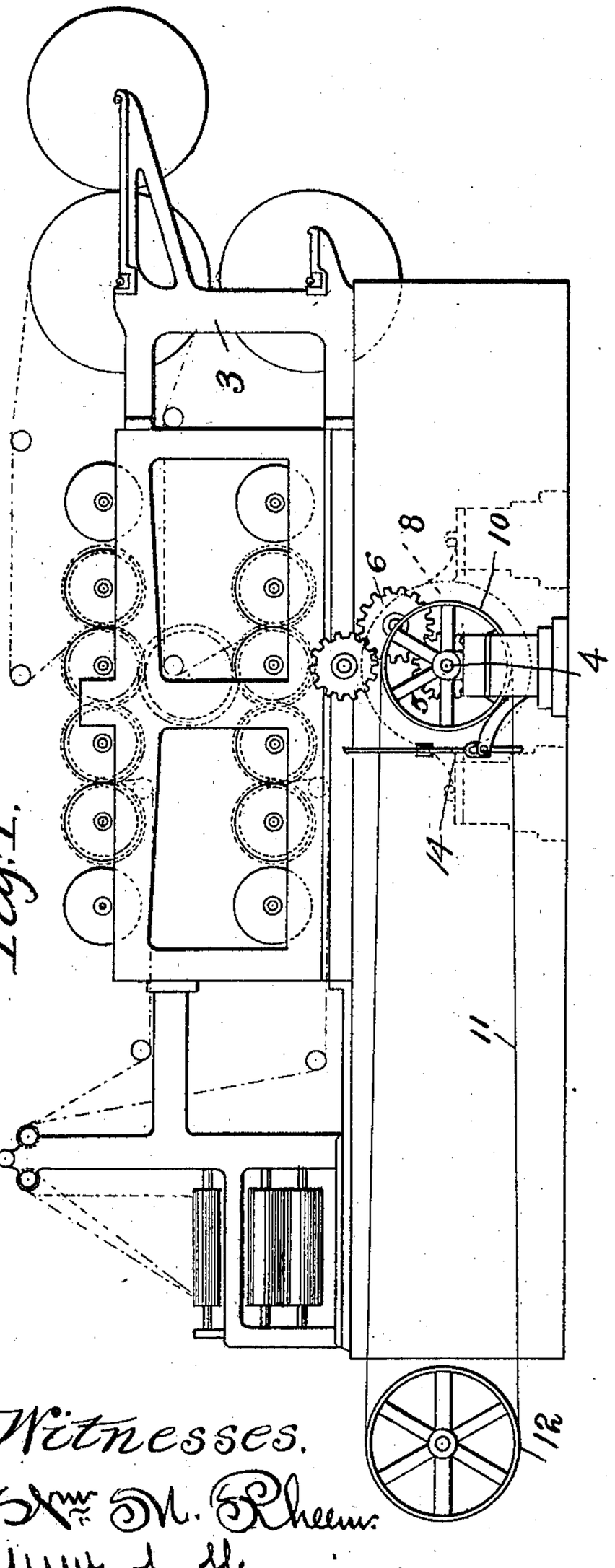

Fig. 1.

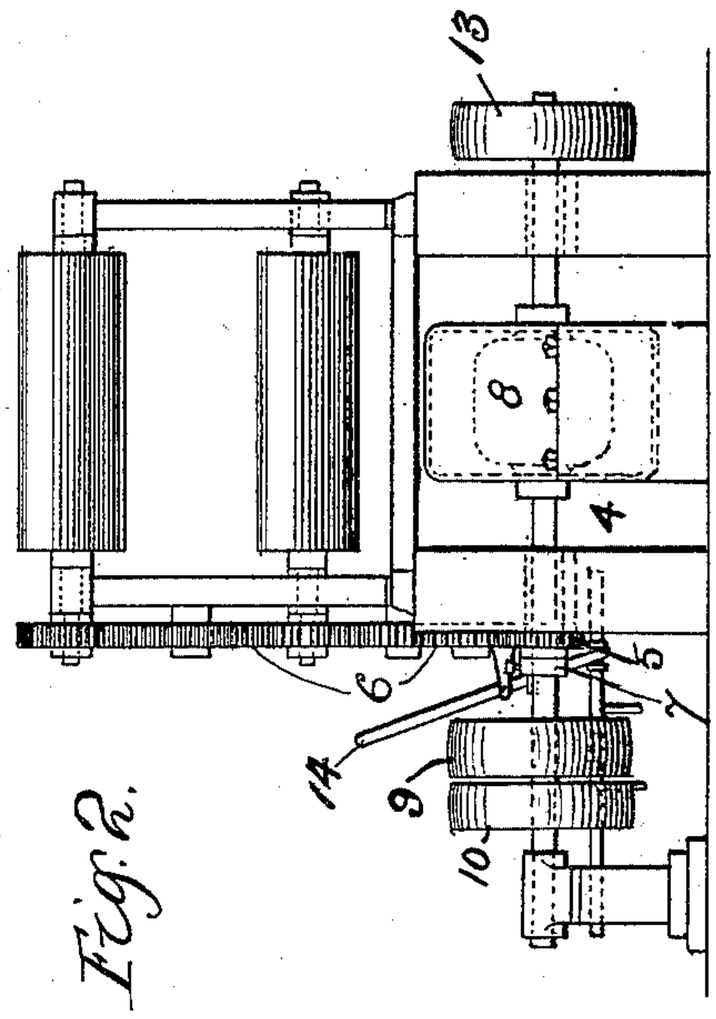

Fig. 2.

Witnesses.
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UNITED STATES PATENT OFFICE.

SAMUEL G. GOSS, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE GOSS PRINTING PRESS COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

MEANS FOR DRIVING PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 702,421, dated June 17, 1902.

Application filed November 29, 1897. Serial No. 660,049. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL G. GOSS, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Means for Driving Printing-Presses, of which the following is a specification.

My invention relates to printing-presses, and particularly to presses which are driven by electric motors. In presses of this description it happens with more or less frequency that the motor which drives the press gets out of order and the press cannot be used until the cause of the trouble is found and the motor repaired. This frequently causes great delays in the operation of the press, and as the economy of time is of the utmost importance the objection above pointed out has stood in the way to a considerable extent of the adoption of motors for driving printing machinery, especially perfecting presses. Furthermore, in the constructions heretofore used, in which a motor was provided for driving the press, it has been impracticable to use the motor for any other purpose, and consequently, as in many instances the press has been used for only a small part of the day, the motor stood idle a great deal of the time, while power was in the meantime derived from other sources for the other purposes of the press-room.

The object of my present invention is to avoid the objections above pointed out, which object I accomplish by providing the press with an electric motor geared directly thereto for driving it under ordinary conditions, means for disconnecting the motor from the press, and means for transmitting power from said motor for driving other mechanisms than the press. I also provide in connection with the foregoing auxiliary driving mechanism for the press and means for connecting said auxiliary driving mechanism to the press independently of the motor.

That which I claim as new will be set forth in the claims.

Referring to the drawings, Figure 1 is a side elevation of a press, illustrating my improvements. Fig. 2 is an end view of the same.

3 indicates the frame of the press, which carries the usual printing mechanism, which may be of any approved form of construction.

4 indicates the driving-shaft, which is arranged transversely of the press and preferably below the printing mechanism, as illustrated in Fig. 2. The shaft 4 is geared by a pinion 5 to a train of gears 6, by which the press is driven. The pinion 5 is adjustable upon the shaft 4, being held in place by a collar 7, as shown in Fig. 2. The object of this arrangement is to permit sufficient movement of the pinion 5 upon the shaft to move it out of mesh with the train of gears 6, thereby disconnecting the shaft 4 from the press proper.

8 indicates an electric motor, which in the construction here shown is mounted directly upon the shaft 4.

9 10 indicate fast and loose pulleys, respectively, which are mounted upon the shaft 4, as shown in Fig. 2. The pulleys 9 and 10 are connected by a belt 11 to a pulley 12 or other suitable source of power. Under normal conditions—that is to say, when the motor 8 is in proper working order—the belt 11 will run upon the loose pulley 10. When, however, it is desired to drive the press either wholly or in part from the pulley 12 or equivalent device, the belt 11 is shifted onto the fast pulley 9 by a suitable belt-shifter 14, whereupon the shaft 4 will be driven by power derived through the belt 11.

13 indicates a second fixed pulley, which is mounted upon the shaft 4. By connecting the pulley 13 with any other mechanism to be driven from the shaft 4 the power of the motor may be utilized for driving such mechanism, and when the pinion 5 is moved out of mesh with the train 6 the motor may be utilized to drive other mechanism without operating the press.

From the foregoing description it will be noted that by the construction shown I provide the press with a drive-shaft having two independent means or sources of power for operating it, either of which may be used alone to drive the press. Thus in the machine illustrated the press may be driven without regard to the condition of the motor,

thereby avoiding delay and damage caused by the derangement of the motor, and in addition the motor may be utilized independently of the press whenever desired.

That which I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination with a printing-press, of a motor geared directly thereto for driving it, means for disconnecting said motor from said press, and means for transmitting power from said motor for driving other mechanisms than said press.

2. The combination with a printing-press, of a motor geared directly thereto for driving it, auxiliary driving mechanism for said press, means for connecting said auxiliary driving mechanism to said press independently of said motor, means for disconnecting said motor from said press, and means for transmitting power from said motor for driving other mechanisms independently of said press.

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