

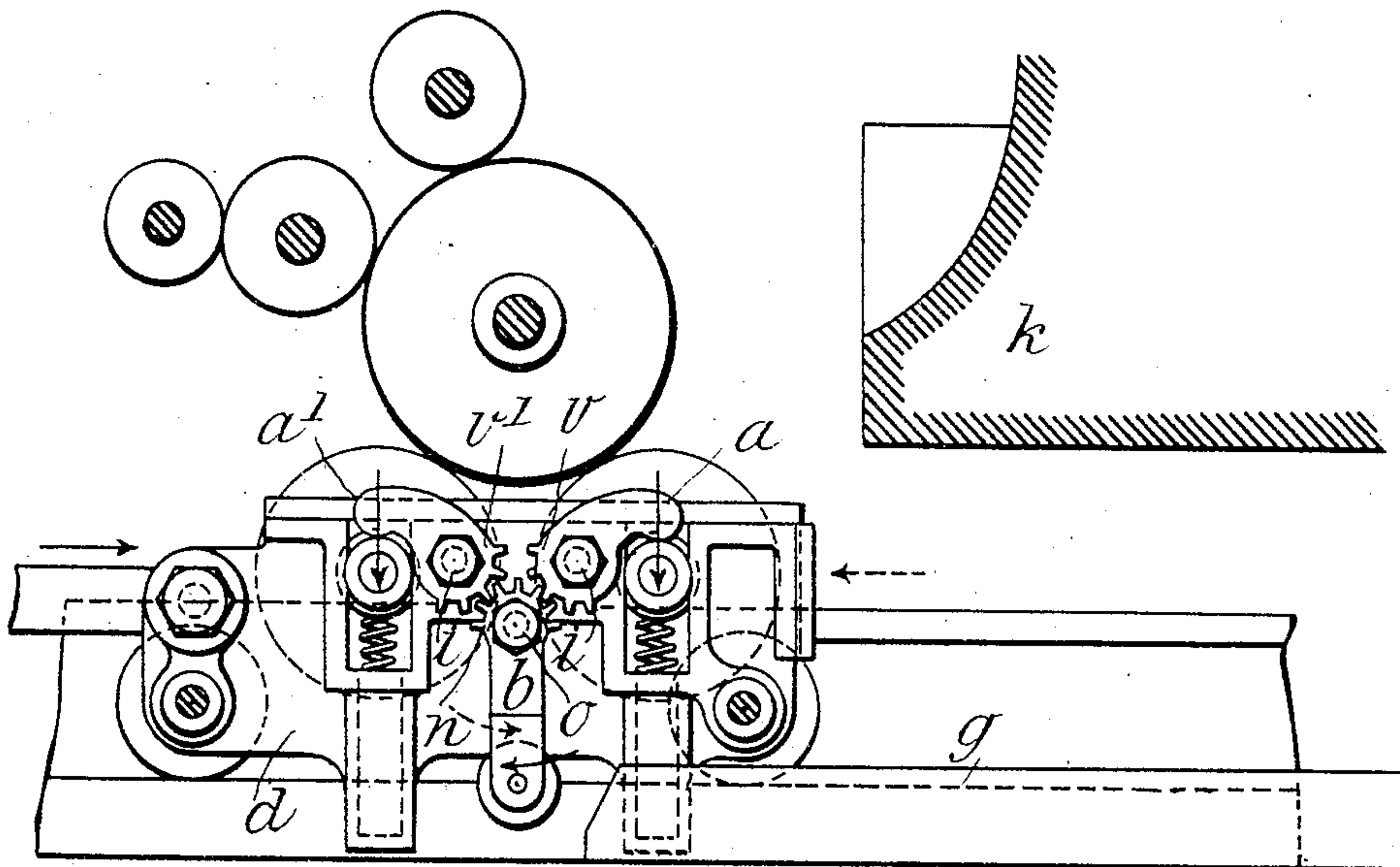
No. 777,722.

PATENTED DEC. 20, 1904.

H. FOMM.
COLOR PRINTING AND STAMPING PRESS.

APPLICATION FILED FEB. 19, 1904.

NO MODEL.



WITNESSES.

Samuel Percival
Albert Jones

INVENTOR

Hans Fomm

By his Attorneys.

Wheatley Mackenzie

UNITED STATES PATENT OFFICE.

HANS FOMM, OF LEIPSIC-REUDNITZ, GERMANY.

COLOR PRINTING AND STAMPING PRESS.

SPECIFICATION forming part of Letters Patent No. 777,722, dated December 20, 1904.

Application filed February 19, 1904. Serial No. 194,406.

To all whom it may concern:

Be it known that I, HANS FOMM, a subject of the German Emperor, residing at 7 Kohlgartenstrasse, Leipsic-Reudnitz, Germany, have
5 invented certain new and useful Improvements in Color Printing and Stamping Presses; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to
10 which it appertains to make and use the same.

My invention relates to color printing and stamping presses.

It has for its object to provide controlling mechanism for the color-cylinders in color
15 printing and stamping presses in which the inking-rollers are mounted on a carriage and reciprocated on a track. Owing to the special construction of this device, the cylinders which are brought in contact with the form when
20 the carriage moves outward are prevented from coming into contact with the form when the carriage moves in the opposite direction without any enlargement of the carriage-track being rendered necessary.

In connection with color printing and stamping presses the movement of the color-cylinder carriage is decidedly restricted—that is to say, its track can only be relatively small—so that particularly in machines with large
30 forms the particular cylinder on the carriage—namely, the first cylinder—which has moved outward is immediately at the end of its movement in close proximity to the form, for which reason when the carriage returns the lowering of the cylinder in proper time presents
35 great difficulties. The lowering and raising devices hitherto employed in presses of the kind mentioned cannot prevent the color-roller when the carriage effects its outward move-
40 ment from coming into contact prematurely, because in these the color-cylinder which is foremost in the direction of movement is put out of action and on account of the slight distance at which this cylinder stands from
45 the form in a horizontal direction there is not sufficient time for the shifting device to bring the cylinder intended for applying the color during the backward movement of the carriage out of reach of the form. The removal
50 of this well-known difficulty has always been

prevented by the impossibility of enlarging the track of the color-cylinder carriage, for which reason the raising and lowering devices hitherto employed have been retained notwithstanding the defectiveness of the color-
55 applying operation. It is now recognized by the inventor that a uniform color-applying operation can be effected in a very simple manner—that is to say, without altering the motion of the carriage—if the color-cylinder
60 which at any particular time is in front in relation to the direction of the movement be brought into contact with the form and that which is behind—that is, at a considerable distance in a horizontal direction from the form—
65 be placed out of action, for as the latter, as already mentioned, is at a considerable distance from the form in a horizontal direction there is time, notwithstanding the smallness of the carriage-track, for putting the rear cylinder
70 out of action. Similarly-acting devices with which the rear cylinder is put out of action have already been employed in platen (or Scandinavian) printing-presses. In these devices the operating-lever is actuated by means
75 of stops arranged at the end of the track in such a manner that the carriage must be moved out over the printing-press in both directions to the extent of the movement of the operating-lever. This kind of motion is subject to
80 the condition of imparting a very considerable movement to the carriage, which can be effected without trouble in platen (or Scandinavian) printing-presses; but presents insurmountable difficulties in color printing and
85 stamping presses—that is, presses actuated by toggles.

In order that in color printing and stamping presses the roller which is to be put out of action may be likewise prevented from coming
90 prematurely into contact with the printing-form, the controlling device in the present invention, as already mentioned, is so constructed that the rear color-cylinder, according to the direction, of movement is put out of action,
95 but with the difference that the distance between the said color-cylinder and the printing-form is taken advantage of when putting the cylinder out of action—that is to say, the back color-cylinder is actuated during the running-
100

in movement of the carriage, so that no enlargement of the carriage-track is necessary. In the drawings two different ways of effecting the movement are illustrated.

5 Figure 1 is a side elevation of a carriage furnished with two cylinders and shown in the "run-out" position. Fig. 2 is a similar view of a carriage furnished with four cylinders.

In the form shown the known depressing-
 10 levers $a a'$ are pivoted around the bolts i and furnished with toothed segments $v v'$, with which the toothed segment n of the trip-lever b engages. The trip-lever b pivots around the
 15 bolt o and has a roller mounted at its lower end, which moves in the usual manner over a rail g , adjoining the railway of the carriage d , the lever b being oscillated into one or the other oblique position, according to the direction in which the carriage is moving. The
 20 rollers are normally held up by spring-bearings. If now the carriage d be moved in the direction of the form k , the lever b is forced by the rail g to the left, the consequence of which is that the lever a is removed from the
 25 bearing of the front cylinder. On the other hand, the lever a' , which moves downward, depresses the bearing of the back cylinder, and thereby puts the cylinder out of action before it can come into contact with the form k .

When the carriage runs out, the operations 30 are reversed.

What I claim, and desire to secure by Letters Patent, is—

1. In color printing and stamping presses, the combination with a reciprocating carriage 35 having reciprocating cylinders, pivoted levers adapted to alternately depress and put said cylinders out of action and a pivoted trip-lever adapted to engage and operate said first-mentioned levers, of a fixed rail adapted to en- 40 gage and operate said trip-lever, substantially as described.

2. In color printing and stamping presses, the combination with a reciprocal carriage 45 having reciprocal cylinders, pivoted toothed levers adapted to alternately depress and put said cylinders out of action and a pivoted trip-lever for operating said first-mentioned levers provided with teeth engaging with the teeth 50 of said levers, of a fixed rail adapted to engage and operate said trip-lever, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

HANS FOMM.

Witnesses:

HERM. SACK,
 RUDOLPH FRICKE.