No. 883,396. PATENTED MAR. 31, 1908.

C. J. EVERETT & J. V. McADAM.

PHOTOGRAPHIC PRINTING MACHINE.

APPLICATION FILED FEB. 14, 1906.

Fig. 1.

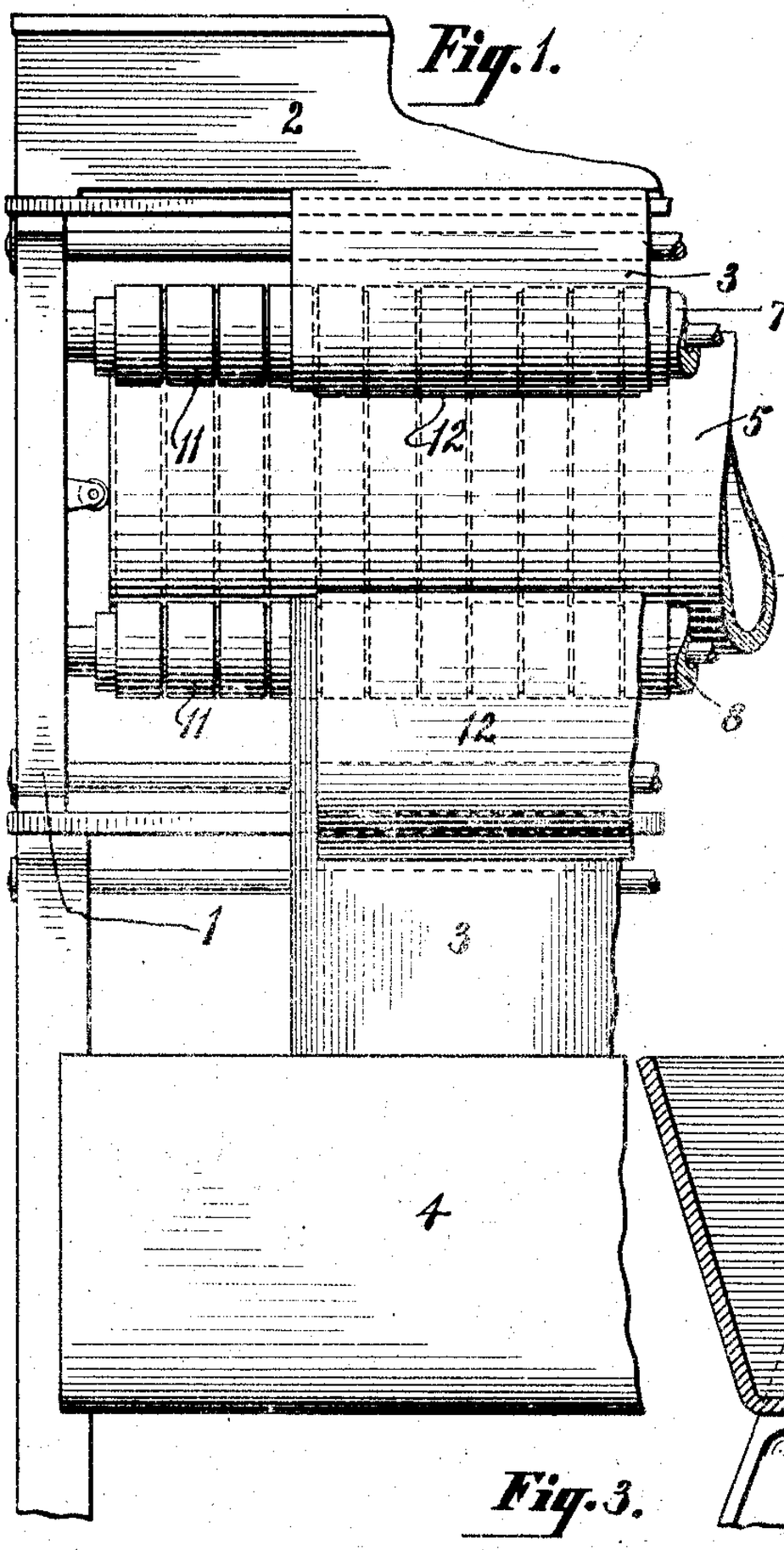


Fig. 2.

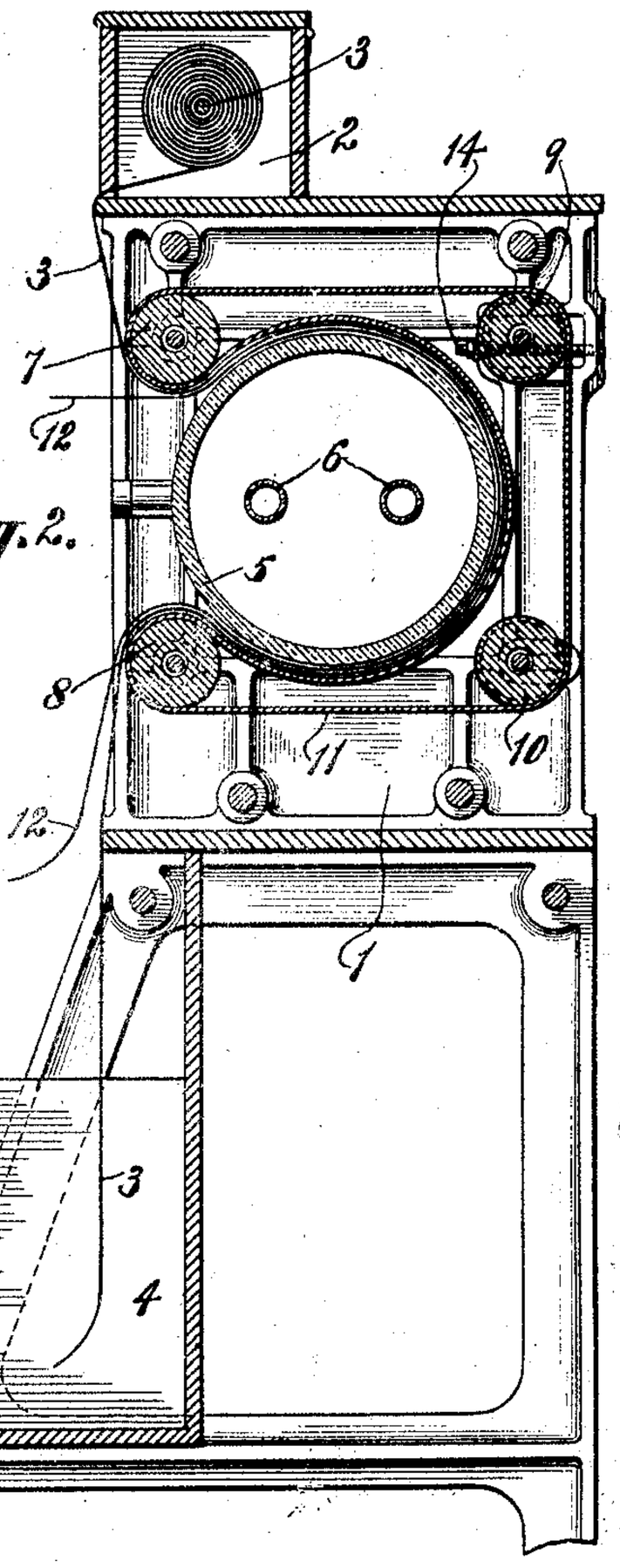


Fig. 3.

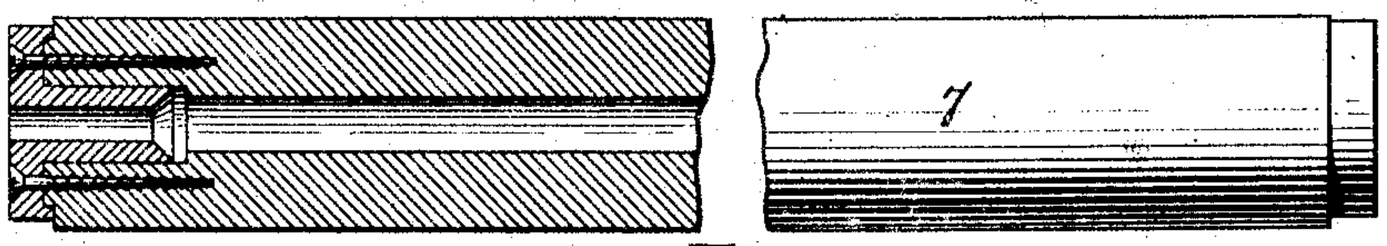
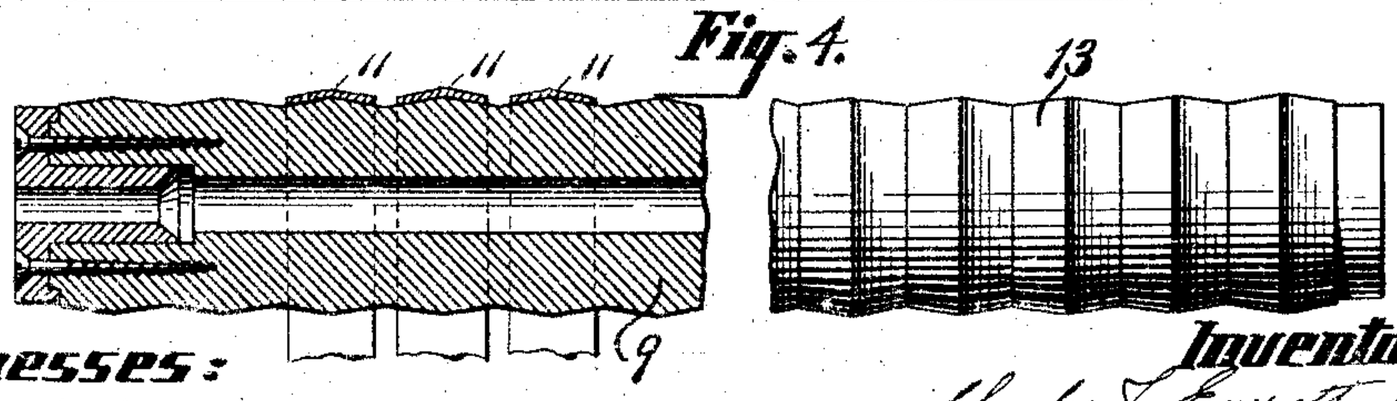


Fig. 4.



Witnesses:

F. G. Wachenhug.

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Brown & Seward

UNITED STATES PATENT OFFICE.

CHARLES J. EVERETT AND JOHN V. McADAM, OF NEW YORK, N. Y., ASSIGNORS TO REVOLUTE MACHINE COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

PHOTOGRAPHIC-PRINTING MACHINE.

No. 883,396. Specification of Letters Patent. Patented March 31, 1908.

Application filed February 14, 1906. Serial No. 300,988.

To all whom it may concern:

Be it known that we, CHARLES J. EVERETT and JOHN V. MCADAM, citizens of the United States, and residents of the borough of Manhattan, in the city and State of New York, have invented a new and useful Improvement in Photographic-Printing Machines, of which the following is a specification.

Our invention relates to an improvement in that type of photographic printing machines in which means are provided for the continuous printing of long sheets or strips of drawings such, for instance, as drawings made on tracing cloth.

The object of our invention is to provide certain improvements in the construction, form and arrangement of the several parts whereby a more perfect feed of the material around the transparent cylinder is provided and also a more perfect contact with the periphery of the transparent cylinder is established.

With these objects in view our invention consists in providing a plurality of narrow belts for feeding the material around the periphery of the transparent cylinder and also consists in providing one or more of the belt rollers with a plurality of crowns over which the belts are caused to travel for preventing the lateral displacement of the belts.

A practical embodiment of our invention is represented in the accompanying drawings, in which

Figure 1 represents in front elevation a portion of a photographic printing machine with our improvements applied thereto, Fig. 2 is a vertical section taken from front to rear through the same, Fig. 3 is a detail view partially in longitudinal central section and partially in side elevation of one of the plain rollers, and Fig. 4 is a similar view of one of the crowned rollers with several of the cylinder belts shown in position thereon.

The photographic printing machine frame is denoted by 1. It may be provided with the usual compartment 2 for the photographic sheet supply roll 3 and a box 4 for receiving the photographic sheet and sheet of drawings after the sheet has been printed.

The transparent cylinder is denoted by 5 and it has located therein a source of light, such, for instance, as two of the well known Cooper-Hewitt lamps 6.

The upper and lower front rollers are denoted by 7 and 8, respectively, and the upper and lower back rollers are denoted by 9 and 10, respectively. These four rollers are mounted to rotate in suitable bearings in the frame 1 in proximity to the periphery of the transparent cylinder 5.

A plurality of narrow belts 11 pass around the rollers 7, 8, 9, 10 and partially around the periphery of the transparent cylinder 5, the said cylinder being supported by said narrow belts. These narrow belts are located in close proximity to each other and serve to hold the interposed photographic sheet 3 and sheet of drawings 12 in close contact with the periphery of the transparent cylinder 5.

We have found, in practice, that it is extremely difficult to properly feed the sheet of drawings and photographic sheet around the periphery of the cylinder by use of a wide belt because of the tendency of the wide belt to creep from one side to the other of the machine. We have found that the use of a plurality of narrow belts entirely overcomes this objection and the belts at the same time prevent any tendency of the photographic sheet or sheet of drawings to become wrinkled or creased while being passed around the transparent cylinder. To more fully insure against any tendency on the part of the narrow belts to creep laterally along the rollers, we provide one or more of the rollers with a plurality of crowns 13 over which the belts are caused to pass. In the present instance we have provided the upper and lower rear rollers 9 and 10 with these crowns 13.

For convenience in tightening the belts we provide means 14 for adjusting the upper back roller 9.

What we claim is:—

1. A photographic printing machine comprising a rotary transparent cylinder, means for supplying light thereto, and means for passing a photographic sheet and an interposed sheet of drawings around the periphery of the said cylinder, said means comprising a plurality of narrow belts.

2. A photographic printing machine comprising a rotary transparent cylinder, means for supplying light thereto and means for passing a photographic sheet and an interposed sheet of drawings around the periphery of the said cylinder, said means comprising a plurality of rollers and a plurality of belts carried thereby.

3. A photographic printing machine com-

prising a rotary transparent cylinder, means for supplying light thereto and means for passing a photographic sheet and an interposed sheet of drawings around the periphery of the cylinder, said means comprising a plurality of rollers and a plurality of belts carried thereby, one or more of the said rollers being provided with a plurality of crowns over which the belts are caused to pass.

4. A photographic printing machine comprising a rotary transparent cylinder, means for supplying light thereto, a plurality of rollers located in proximity to the said cylinder and a plurality of belts passing partially around the cylinder and around the said rollers for passing a photographic sheet and an interposed sheet of drawings into and out of contact with the periphery of the cylinder.

5. A photographic printing machine comprising a rotary transparent cylinder, means for supplying light thereto, upper and lower front rollers and upper and lower back rollers located in proximity to the cylinder and a plurality of belts passing partially around the cylinder and around the said rollers for passing a photographic sheet and an interposed sheet of drawings into and out of contact with the periphery of the cylinder.

6. A photographic printing machine comprising a rotary transparent cylinder, means for supplying light thereto, and means for passing a photographic sheet and an interposed sheet of drawings around the periphery of the cylinder, said means comprising a plurality of belts located in close proximity to each other.

In testimony, that we claim the foregoing as our invention, we have signed our names in presence of two witnesses, this 13th day of February 1906.

CHARLES J. EVERETT.
JOHN V. McADAM.

Witnesses:
FRED HAYNES,
HENRY THIEME.