

Fig. 1.

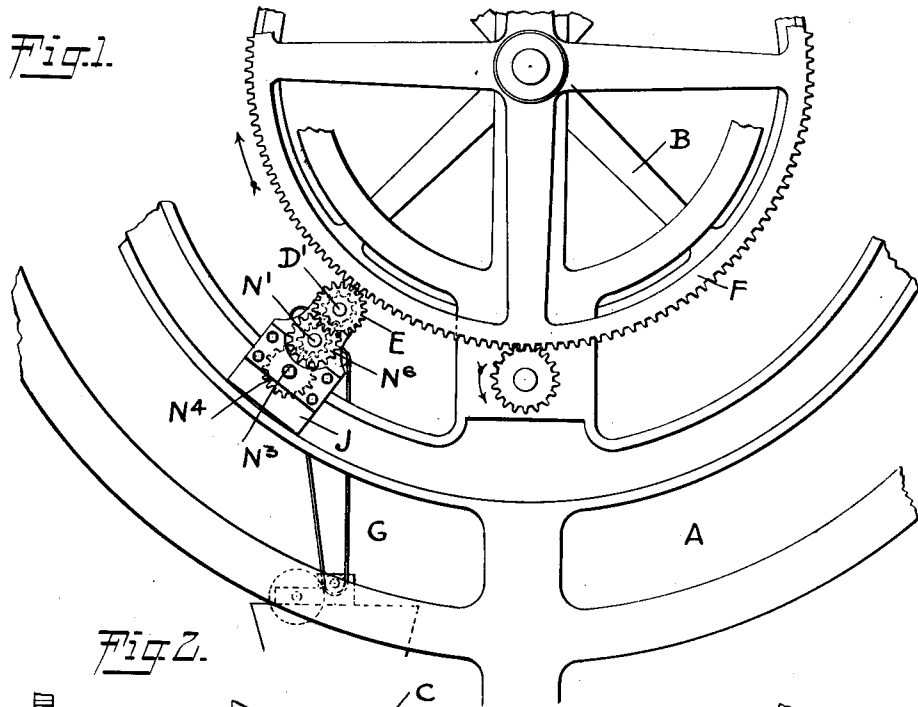
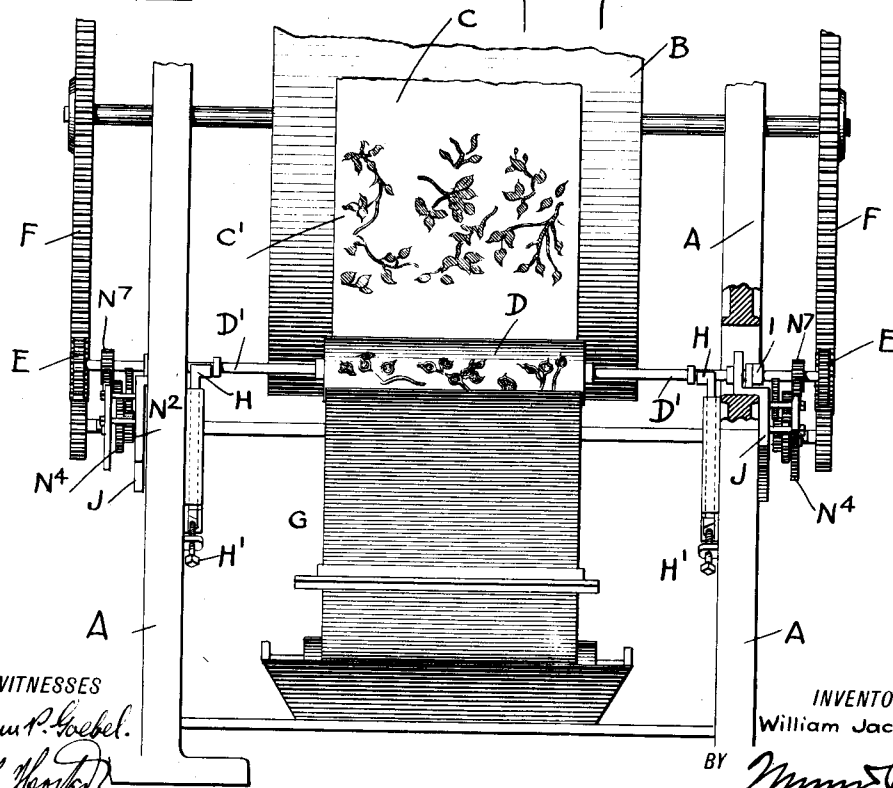


Fig. 2.



WITNESSES
William P. Koebel.
Ruf. H. H. H.

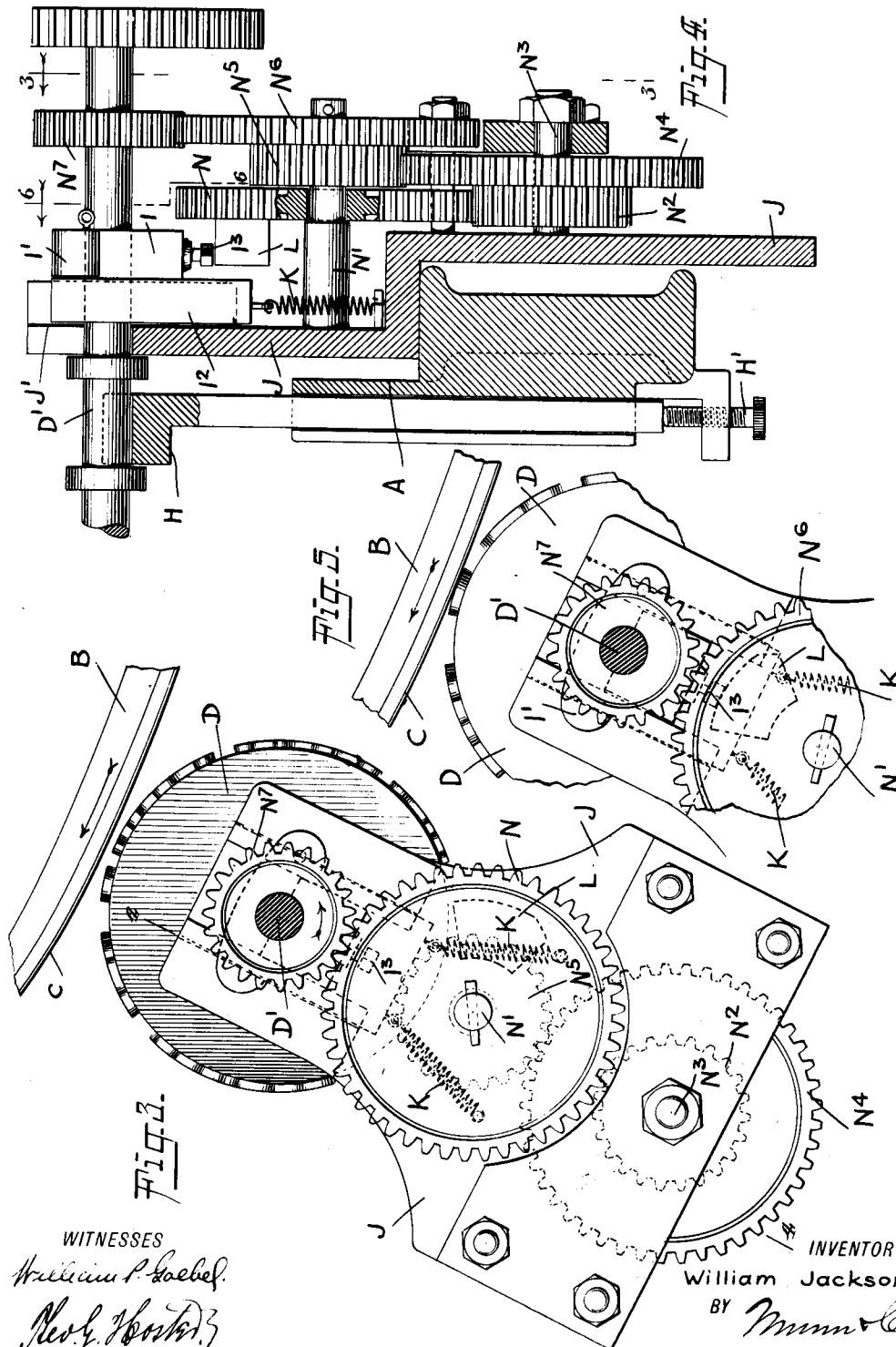
INVENTOR
William Jackson
BY *Mum Co*
ATTORNEYS

W. JACKSON.
CROWN PRINTING DEVICE.
APPLICATION FILED MAY 7, 1912.

1,051,737.

Patented Jan. 28, 1913.

3 SHEETS—SHEET 2.



WITNESSES
William P. Gaebel.
Neely, Hester & Co.

INVENTOR
William Jackson
BY *Munn & Co.*
ATTORNEYS

W. JACKSON.
CROWN PRINTING DEVICE.
APPLICATION FILED MAY 7, 1912.

1,051,737.

Patented Jan. 28, 1913.

3 SHEETS—SHEET 3.

Fig. 6.

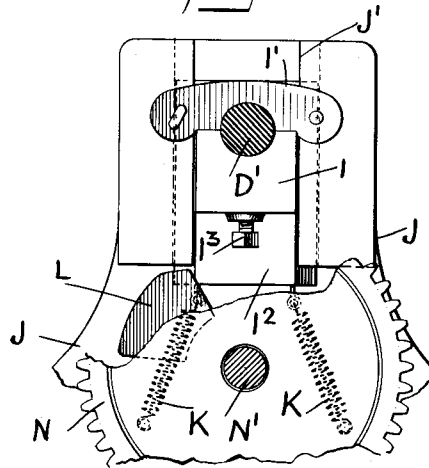


Fig. 7.

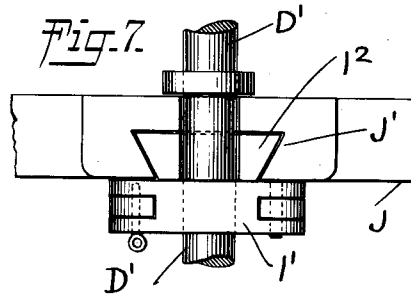
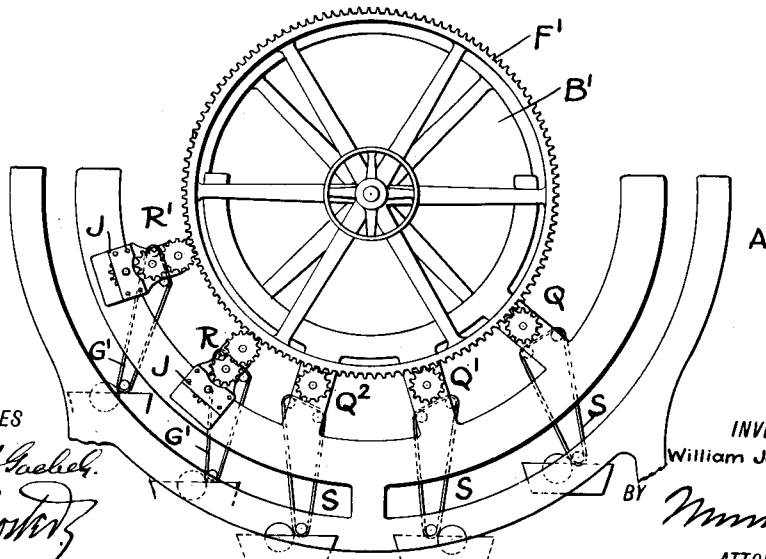


Fig. 8.



WITNESSES
William P. Gachet.
Rufus H. Hester

INVENTOR
William Jackson
BY *Wm. L. C.*
ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM JACKSON, OF NEW YORK, N. Y., ASSIGNOR TO THE ROBERT GRAVES CO., OF
BROOKLYN, NEW YORK.

CROWN-PRINTING DEVICE.

1,051,737.

Specification of Letters Patent.

Patented Jan. 28, 1913.

Application filed May 7, 1912. Serial No. 695,627.

To all whom it may concern:

Be it known that I, WILLIAM JACKSON, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Crown-Printing Device, of which the following is a full, clear, and exact description.

10 The invention relates to wall paper printing machines, and its object is to provide a new and improved crown printing device arranged according to the length of the hanger and the height of the crown desired.

15 For the purpose mentioned use is made of an impression cylinder and a crown-printing roll mounted to rotate in unison with the said impression cylinder and having periodical bodily movement toward and
20 from the peripheral face of the impression cylinder, to provide the wall paper passing around the said impression cylinder with crown imprints at desired intervals.

A practical embodiment of the invention
25 is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the crown
30 printing device; Fig. 2 is an end elevation of the same, parts being in section; Fig. 3 is an enlarged sectional side elevation of the crown printing device with the crown printing roll out of printing position relative to
35 the impression cylinder, the section being on the line 3—3 of Fig. 4; Fig. 4 is a transverse section of the same on the line 4—4 of Fig. 3; Fig. 5 is a sectional side elevation of the same and showing the crown printing
40 roll in printing position relative to the impression cylinder; Fig. 6 is a sectional side elevation of the same on the line 6—6 of Fig. 4, part being broken out; Fig. 7 is a plan view of the same; and Fig. 8 is a side
45 elevation of a wall paper printing machine provided with crown printing devices.

The printing machine is mounted on a suitably constructed frame A in which is mounted to rotate the impression cylinder
50 B around which passes the paper C to be provided with a crown C' by the use of a crown printing roll D mounted to turn in unison with the impression cylinder B and having bodily movement toward and from

the peripheral face of the impression cylinder B, in order to provide the paper C periodically with the crown C' according to the length of the hanger, that is, the distance between adjacent crowns C'. The shaft D' of the crown printing roll D is
60 provided at its ends with gear wheels E in mesh with gear wheels F rotating in unison with the impression cylinder B, and the crown printing roll D is provided with the usual printing face representing a desired
65 pattern, and the crown printing roll D is supplied with ink by a suitable inking device G, as indicated in Figs. 1 and 2.

The shaft D' of the printing roll D is journaled in open bearings H at the time
70 the crown printing roll D is out of contact with the peripheral surface of the impression cylinder B and the said bearings H are adjustably held on the frame A by the use of set screws H', as plainly indicated in
75 Figs. 2 and 4. The shaft D' is also journaled in bearings I each of which has a cap I' (see Figs. 6 and 7), and a slide I² mounted to slide in a radially-disposed guideway J' on a bracket J bolted or otherwise secured
80 to the frame A. The under side of each slide I² of each bearing I is connected with springs K attached to the bracket J so as to normally hold the bearings I in lowermost position, that is, with the shaft D' engag-
85 ing the open bearings H. The under side of each bearing I is provided with a set screw I³ adapted to be engaged by a cam L attached to or forming part of the gear wheel N mounted to rotate loosely on a
90 stud N' carried by the bracket J. Each gear wheel N is in mesh with a gear-wheel N² mounted to turn on a stud N³ attached to the bracket J, and on the gear wheel N² is secured a gear wheel N⁴ in mesh with a
95 gear wheel N⁵ mounted to rotate loosely on the stud N' and carrying a gear wheel N⁶ in mesh with a gear wheel N⁷ secured on the shaft D'. By the arrangement described the gear wheel N is driven continually from
100 the shaft D' by the train of gear wheels above mentioned so that the cam L periodically engages the set screw I³ and thus imparts a radial inward sliding movement to the bearing I whereby the shaft D' and the
105 crown printing roll D are moved toward the peripheral face of the impression cylinder B to cause the crown printing roll D to

make an imprint on the paper C during one revolution of the said crown printing roll D.

It is understood that the crown printing roll D is continually driven and by the arrangement described is periodically moved into engagement with the paper C to provide the same with the crown C'. After the crown printing roll D has completed a revolution the cam L leaves the set screw I² so that the springs K draw the bearings I outward thus moving the crown printing roll D out of printing contact with the wall paper C.

It is understood that the train of gear wheels above mentioned is so arranged that the imprint for the crown C' takes place at the time the paper has been carried around the impression cylinder B a distance corresponding to the length of the hanger, and for different lengths of hangers it is necessary to change the gear wheels to permit of printing the crown on hangers of ten, twelve or fourteen feet, or any other desired linear measurement.

For different sized crown printing rolls D it is also necessary to change the gear wheels correspondingly, so that the crown printing roll D makes one complete revolution while in printing position.

The gear wheels N⁶, N⁷ have teeth of sufficient depth to maintain the said gear wheels at all times in mesh, as will be readily understood by reference to Figs. 3 and 5.

It is understood that the crown printing device as shown in Figs. 1 and 2 is used only for providing plain or previously printed wall paper with crowns, but the said crown printing device or a plurality thereof may be used on a regular wall paper printing machine, as shown, for instance, in Fig. 8, in which a wall paper printing machine is provided with three different printing rolls Q, Q', Q² for printing the hanger with the desired design in three colors, and two crown printing devices R and R' are used for printing the crowns at intervals in two colors, the said crown printing devices R and R' being of the construction above described and shown in Figs. 1 to 7, so that further description of the same is not deemed necessary. The printing rolls Q, Q', Q² operate in conjunction with the impression cylinder B' and are driven in unison from the gear wheel F', and the crown printing devices R and R' are each provided with a crown printing roll D the same as above described in reference to Figs. 1 to 7. Inking devices S supply the ink to the printing rolls Q, Q', Q², and inking devices G' similar to the inking devices G supply the ink to the printing rolls D of the devices R, R'.

From the foregoing it will be seen that plain wall paper or wall paper printed in designs in one or more colors can be readily

provided with crowns at the end of each hanger and the crowns may be of a single color or a number of colors as desired.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In a printing machine of the class described, the combination with an impression cylinder, of a crown printing roll rotating in unison with the impression cylinder, a shaft for said crown printing roll, slidable bearings mounted on the frame of the machine and carrying the said shaft, means for imparting a sliding movement to the bearings periodically to move the crown printing roll in and out of printing position relative to the said impression cylinder, and open bearings adjustably held on the frame of the machine adjacent to the said slidable bearings, and in which the said shaft of the crown printing roll is journaled at the time the crown printing roll is out of printing position.

2. In a printing machine for printing crowns on wall paper, the combination with an impression cylinder of a crown printing roll rotating in unison with the said impression cylinder, a shaft for said crown printing roll, slidable bearings carrying the said shaft to move the crown printing roll in and out of printing position relative to the said impression cylinder, cams for imparting a periodical sliding motion to the said bearings, means for rotating the said cams, and adjustable open bearings in which the shaft of the crown printing roll is journaled at the time the crown printing roll is out of printing position.

3. In a printing machine for printing crowns on wall paper, the combination with an impression cylinder of a crown printing roll rotating in unison with the said impression cylinder, a shaft for said crown printing roll, slidable bearings carrying the said shaft, cams for imparting a periodical sliding motion to the said bearings, trains of gear wheels of which one of each train is secured to the shaft of the crown printing roll and another of the gear wheels of each train carries the corresponding cam, open bearings for the shaft of the crown printing roll, and means for adjusting said open bearings.

4. In a printing machine for printing crowns on wall paper, the combination with an impression cylinder, of a crown printing roll rotating in unison with the said impression cylinder and provided with a shaft, bearings in which the said shaft is journaled, guideways disposed radially relative to the said impression cylinder for the said bearings to slide in to move the crown printing roll radially toward and from the peripheral face of the impression cylinder, springs connected with the said bearings to

hold the crown printing roll normally out
of printing position, adjustable striking
members on the said bearings, cams adapted
to engage the said striking members, trains
5 of gear wheels, one for each cam and connected with the said shaft, and adjustable
open bearings for the said shaft to limit the
outward movement thereof.

In testimony whereof I have signed my
name to this specification in the presence of 10
two subscribing witnesses.

WILLIAM JACKSON.

Witnesses:

WILLIAM W. SWEETLAND,
J. SCHAEFER, Jr.