

May 21, 1940.

C. BLOMGREN

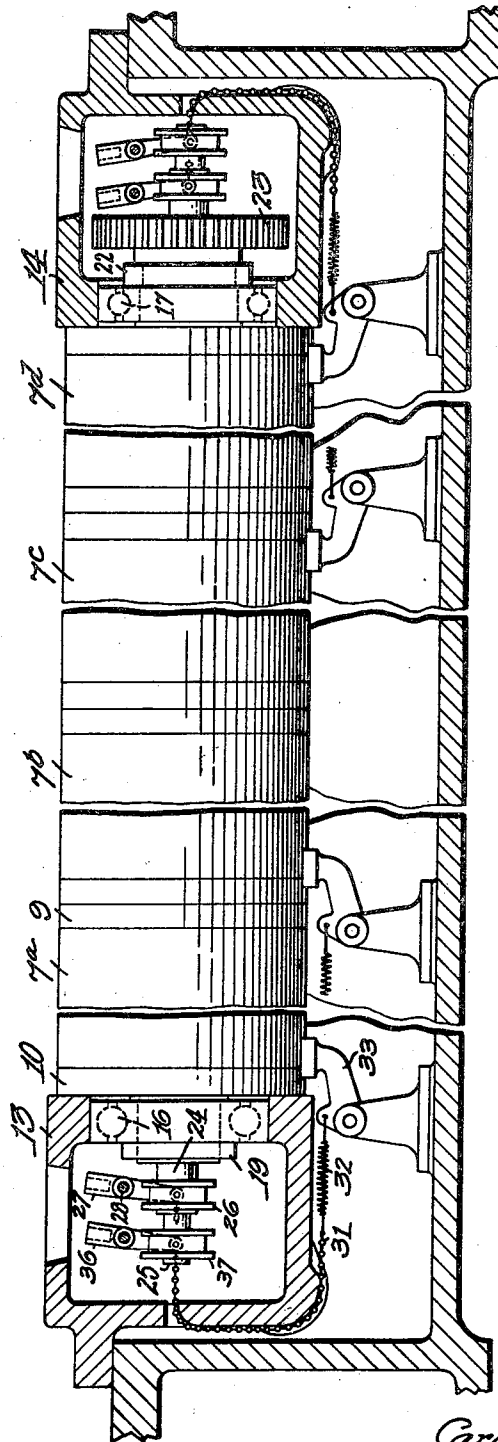
2,201,942

MULTIPLE POINT CONTROL FOR INKING MECHANISM

Original Filed Jan. 30, 1934

2 Sheets-Sheet 1

Fig. 1



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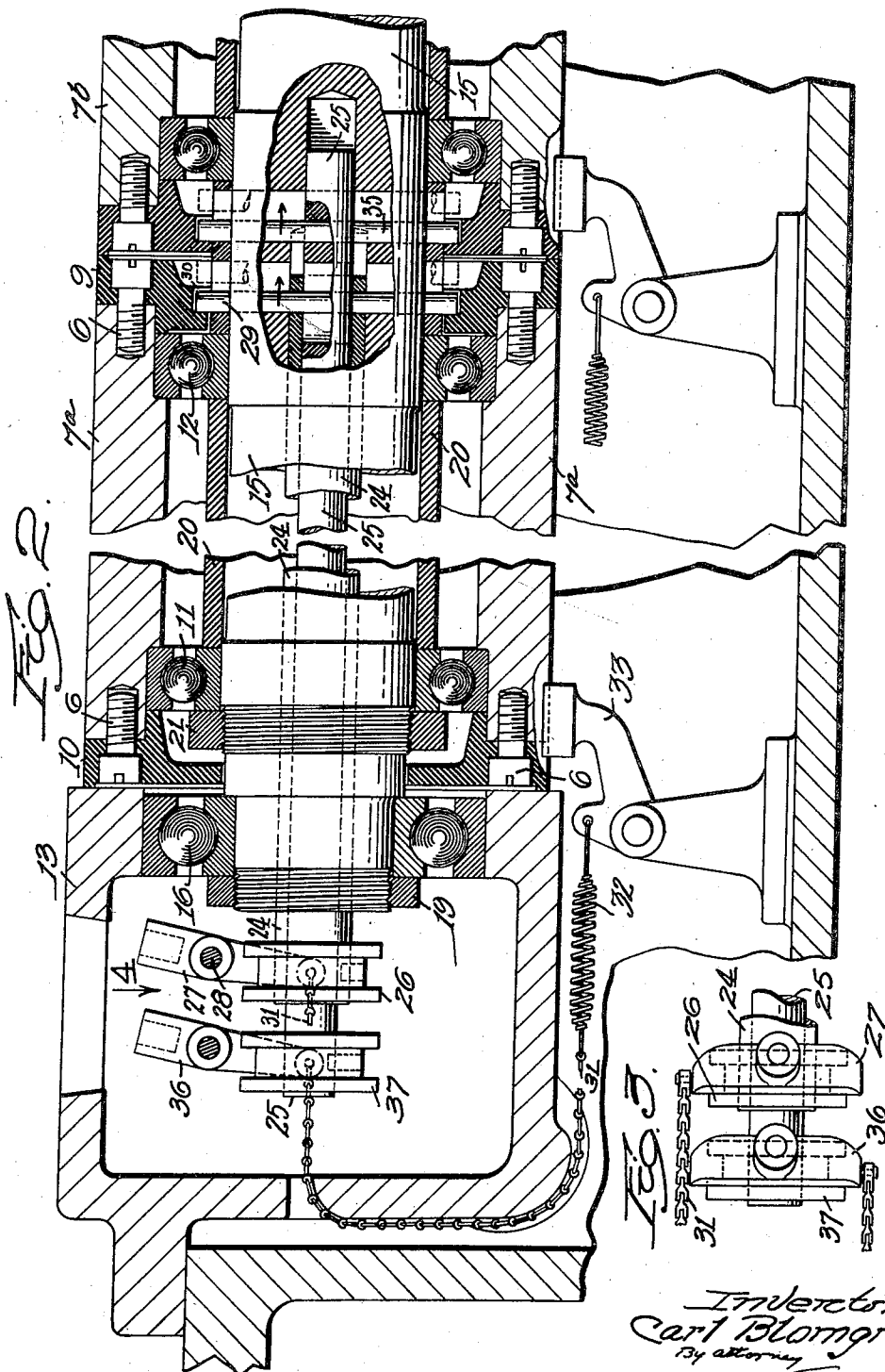
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2 Sheets-Sheet 2



UNITED STATES PATENT OFFICE

2,201,942

MULTIPLE POINT CONTROL FOR INKING
MECHANISM

Carl Blomgren, Plainfield, N. J., assignor to Wood
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Original application January 30, 1934, Serial No.
708,933. Divided and this application July 8,
1937, Serial No. 152,489

2 Claims. (Cl. 101—348)

This is a division of my prior application filed
January 30, 1934, Serial No. 708,933 Patent No.
2,089,331, August 10, 1937.

The principal objects of this invention are to
provide means by which a printing press can
be run to print three quarters or half the width
of the ordinary web without replacing the inking
or other roll of the inking system or the em-
ployment of an ink regulating blade to prevent
the inking of one or more pages in width of web
and to provide a fountain roll built in sections,
each of substantially one page width, provided
with means whereby any number of them may
be silenced or prevented from rotating for the
purpose of delivering ink when the press is to be
run with a narrow width web.

Other objects and advantages of the invention
will appear hereinafter.

Reference is to be had to the accompanying
drawings, in which

Fig. 1 is a sectional view of a part of a fountain
roll illustrating this invention;

Fig. 2 is a cross sectional elevation of an inking
trough showing in side elevation, a preferred
form of fountain roll made in accordance with
this invention, and

Fig. 3 is a plan of the clutch shifting mecha-
nism.

In the printing of newspapers, sometimes it is
necessary to use web rolls of different widths to
provide the desired number of printed pages in
the finish product. Usually full width four page
paper rolls, three quarter rolls and half rolls
are used, most presses being built to accommo-
date full width rolls. When a narrow roll is to
be used only a portion of the press is operated,
of course. Certain types of inking systems are
employed in which one of the inking rolls is
made of the proper width to furnish ink only to
those plates on the press which are being used
to print the narrow width web. In using this
system, it is necessary to change at least one
of the inking rolls in each system when a differ-
ent width of paper is to be employed, thus wasting
a good deal of time.

In the case illustrated the fountain roll is
composed of a number of sections, 7^a, 7^b, 7^c and
7^d, each of cylindrical form and each of one
page width. The section 7^a which is next to
the end has secured to its ends by screws 6 two
cover plates 9 and 10, also cylindrical, and with
their peripheries flush with the outside surface in
section 7^a. Thus a continuous cylindrical sur-
face is provided. The outer races of two ball
bearings 11 and 12 are also secured by these

cover plates 9 and 10 respectively. The end
plate 10 also fits closely against a stationary
bracket 13 which, along with a similar bracket
14, serves to support the two ends of a shaft 15
which is the fountain roll shaft.

This shaft is mounted in ball bearings 16 and
17 in the brackets 13 and 14 respectively. The
inner races of bearings 16 are secured in place
on the shaft 15 by a threaded nut 19. The inner
races of the ball bearings 11 and 12, and a series
of similar ball bearings for the other sections of
the fountain roll and the inner race of the ball
bearing 17, are held in their proper positions by
a series of spacers 20 and lock nuts 21 and 22
located at the opposite ends of the shaft 15. At
one end a gear 23 is secured to the shaft 15 and
is adapted to be driven from any convenient
part of the press to operate in proportion thereto
and drive the fountain roll.

The left hand end of the shaft 15 is provided
with a longitudinal hole for the insertion of a
sleeve 24 and a rod 25 slidably mounted within
the sleeve, the sleeve also being slidable. On the
end of the sleeve 24 is secured a spool 26 co-
operating with a yoke 27 which, by means of a
shaft 28, is pivotally mounted in the bracket 13.
This provides means for shifting the sleeve longi-
tudinally. The rod is shifted longitudinally by
similar means comprising a spool 37 and yoke 36.

On the inside end of the sleeve 24 is secured
a cross pin 29 which passes through a slot in
the rod 25, so as to avoid restriction of the mo-
tion of the rod, and extends radially sufficiently
to cooperate with radial slots 30 in the end
plate 9. All the sections, normally, are driven
in a similar way.

It will be obvious that when the sleeve 24 and
its pin 29 are in the position shown in Fig. 1 the
motion of this sleeve to the right will disengage
the pin 29 from the slots 30 and will rotate with
the shaft in the space at the right of these slots
and will no longer drive the end plate 9 or the
section 7^a. A chain 31 is attached to the lower
end of the yoke 27 and extends out through a
hole in the stationary bracket 13 to a position
under the fountain section 7^a. At this point it
is connected with a spring 32, the other end of
which is connected with a brake shoe arm 33.
When the section 7^a is disconnected from the
shaft 15 and the spring 32 automatically swings
the brake shoe 33 up into contact with the
surface of the section 7^a, thereby applying fric-
tion to prevent the section 7^a from rotating and
also the end plate 10.

In a similar manner, the rod 25 is provided with

a cross pin 35 cooperating with a similar clutching device in the end plate on the left end of the section 7^b. Disconnection is accomplished through the operation of the yoke 36 and spool

- 5 37. A similar chain and brake shoe arrangement is used for placing a frictional drag on the section 7^b when the drive is disconnected.

- An opening is provided in the top of the bracket 13 through which a bar may be inserted in the 10 holes provided in the yokes 27 and 35 to operate either of them. A similar construction is used for silencing the driving sections 7^c and 7^d, those being clutched or unclutched from the right hand end of the shaft 15.

- 15 This constitutes a simple means for silencing a particular section or sections of the fountain or other roll and preventing the ink from being brought up through an ink motion which normally feeds into a full width web. It avoids the 20 waste of time required where one or more inking rolls of three quarter or half width have to be substituted for full width rolls and also avoids the necessity of using an auxiliary page width blade for taking the ink from a portion of the 25 fountain roller and preventing the distribution of that ink.

Having thus described my invention and the advantages thereof I do not wish to be limited to

the details herein disclosed, otherwise than as set forth in the claims, but what I claim is:

1. The combination with a fountain roll formed in sections substantially in contact end to end, a shaft on which said sections are located and normally free to turn, a longitudinally movable sleeve and a longitudinally movable rod in the sleeve, both concentrically located in said shaft, and means for moving the sleeve and rod independently, of a transverse pin carried by the rod and sleeve respectively, each of two adjacent sections having a slot by which said pins, or either of them, can connect the section to rotate the shaft.

2. In an inking system for a newspaper printing plant, the combination of a fountain roll formed of a series of sections, a shaft on which said sections are arranged end to end substantially in contact and rotatable independently of each other, to transfer ink in an uninterrupted manner from end to end of said roll and for the sections to take ink from the same fountain, and means for securing certain sections to said shaft to rotate therewith to provide for printing on wide or narrow webs as desired, without moving or removing any of said sections.

CARL BLOMGREN.

CERTIFICATE OF CORRECTION.

Patent No. 2,201,942.

May 21, 1940.

CARL BLOMGREN.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 1, first column, line 32, for the word "finish" read --finished--; page 2, second column, line 13, claim 1, after "rotate" insert --from--; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 25th day of June, A. D. 1940.

(Seal)

Henry Van Arsdale,
Acting Commissioner of Patents.