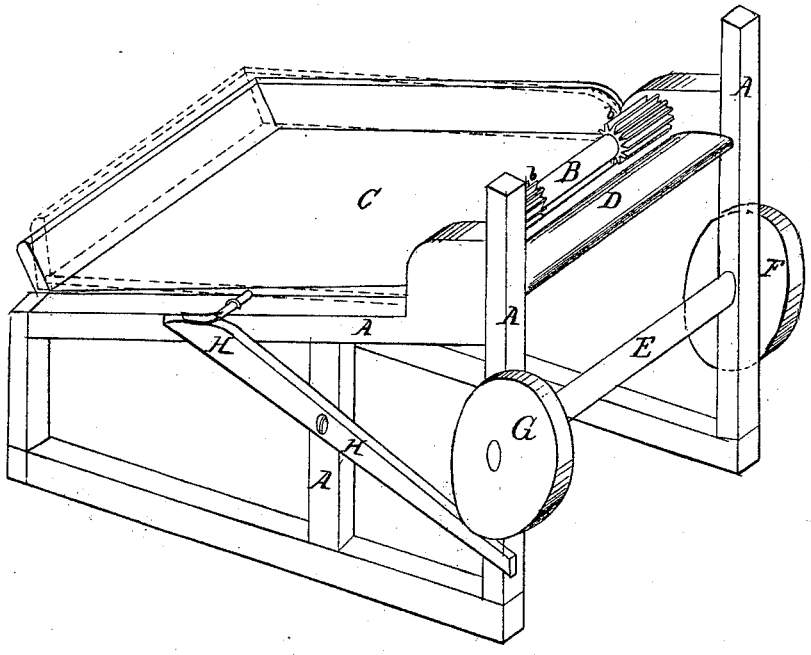
J. A. GRAVES.

PAPER FEEDER.

No. 113,291. Patented Apr. 4, 1871




Witnesses.

L. A. Graves

F. C. B. Graves.

Inventor.

John A. Graves

# UNITED STATES PATENT OFFICE.

JOHN A. GRAVES, OF WASHINGTON, DISTRICT OF COLUMBIA.

## IMPROVEMENT IN PAPER-FEEDERS.

Specification forming part of Letters Patent No. **113,291**, dated April 4, 1871; antedated April 1, 1871.

*To all whom it may concern:*

Be it known that I, JOHN A. GRAVES, of Washington, in the District of Columbia, have invented a certain Feeding Apparatus for Feeding Paper into Ruling-Machines, Printing-Presses, &c., of which the following is a specification.

*Nature and Objects of the Invention.*

The first part of my invention relates to the combination of a feeding-roller with a balance-board and feed-board. The feeding-roller, with ribbed rubber covering near each end, takes the paper from the balance-board, one end of which touches the under side of said roller, and by the friction of the rubber passes the paper over the feed-board to the ruling-machine or other machine with which it may be used. Said feed-board is covered with rubber to prevent by a counter-friction more than one sheet passing at a time. The roller B is to be connected with the ruling-machine by tapes or cords.

The second part of my invention relates to an axle with a wheel on one end and an eccentric on the other end, combined with a lever worked by said eccentric so as to tip the balance-board in order to cause an interval between the passage of the several sheets.

*Description of the Accompanying Drawing.*

A is the frame of the feeder.

B is the feeding-roller, suitably journaled in frame A, and *b b* are the ribbed rubber covers near each end of said roller.

C is the balance-board, centrally pivoted, as shown, which holds the paper to be fed.

D is the feed-board, with rubber covering to prevent more than one sheet passing at a time.

E is the axle to which the wheel and eccentric are attached.

F is the wheel, turned by a belt.

G is the eccentric, working against the lever H, by which the balance-board C is tipped.

The paper is placed upon the balance-board C, which turns upon two journals fixed a little forward of the center. The paper being thus placed, the end of the upper sheet touches the under side of the ribbed rubber coverings of the roller B. This roller is kept constantly revolving, either by bands or cords passing from this roller to the machine which it feeds, or else by a band passing round the end of one of the journals of this roller. By the friction of said ribbed rubber coverings the top sheet is passed forward over the feed-board D to the ruling or other machine to be fed. The lever H being moved by the eccentric G, which eccentric is kept revolving by a band on the wheel F, said lever H, after one sheet has been fed, tips the balance-board C, thereby making an interval before the next sheet is fed. When sufficient interval has elapsed, which will be regulated by the size of the wheel F, the eccentric allows the lower end of the lever to rise, thereby releasing the balance-board from its influence. The front end of the balance-board, with the remaining sheets, again comes up to the roller B, and another sheet is passed forward over the feed-board D to the machine to be fed. Should two sheets adhere and be taken up together by the coverings *b b*, the under sheet will be stopped by the friction of the rubber covering on said feed-board D, said covering being put on the board D for that purpose.

*Claims.*

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

1. The feeding-roller B, provided with elastic rubber coverings *b b*, in combination with the balance-board C and feed-board D, arranged substantially in the manner and for purpose set forth in the preceding description.

2. The shaft E and eccentric G, attached thereto, in combination with the lever H and balance-board C, provided with a crank-axis, all arranged in relation to each other in the manner described, and for the purpose specified.

JOHN A. GRAVES.

Witnesses:
D. P. COWL,
E. F. SWEENEY.