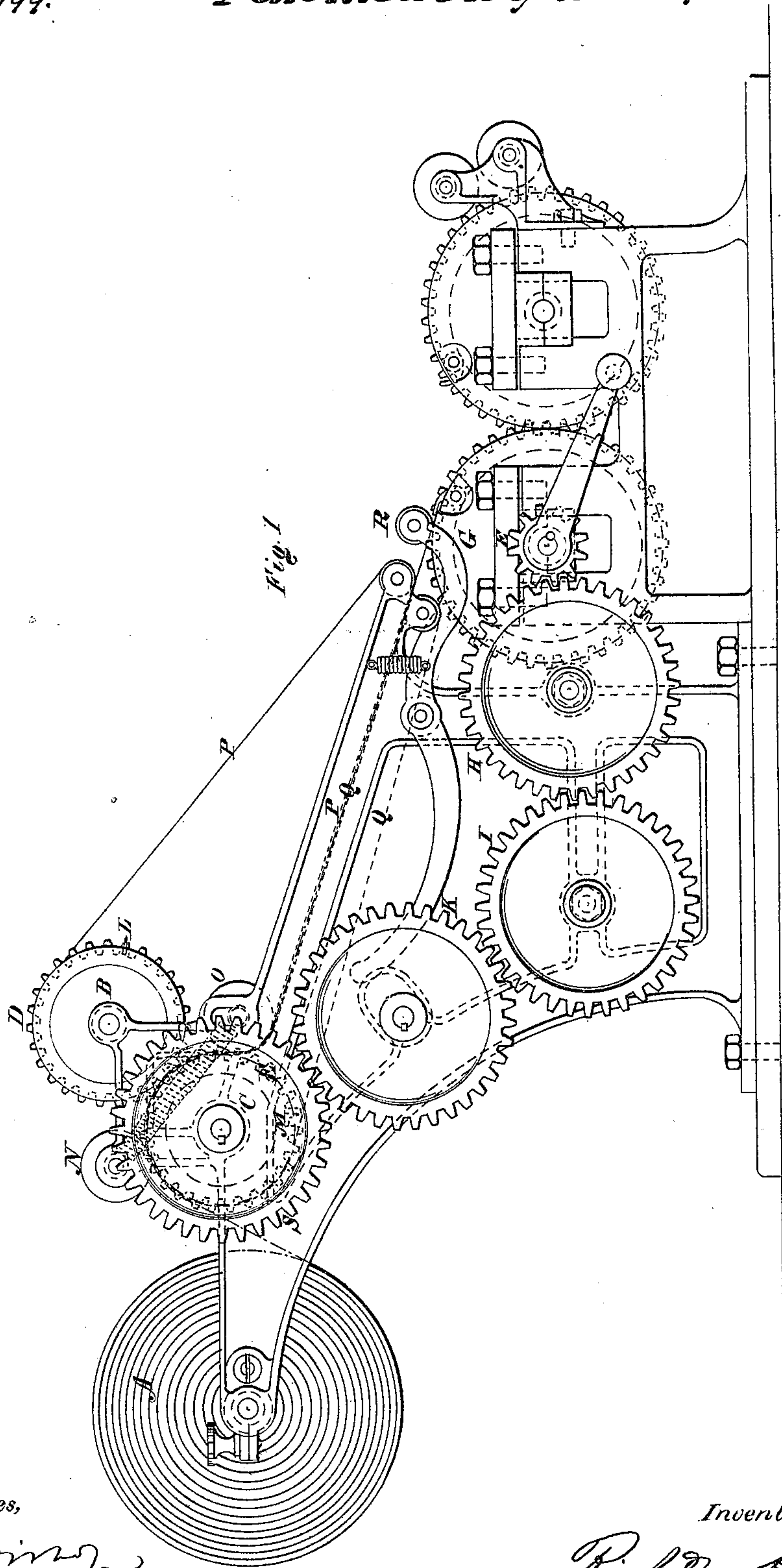


R.M. Hoe Sheet 1 of 2 Sheets
Paper Feeding Mach.
N^o 25199. Patented Aug. 23. 1859.



Witnesses,

James B. Smith
Charles De Laegh

Inventor,

Rich. M. Hoe.

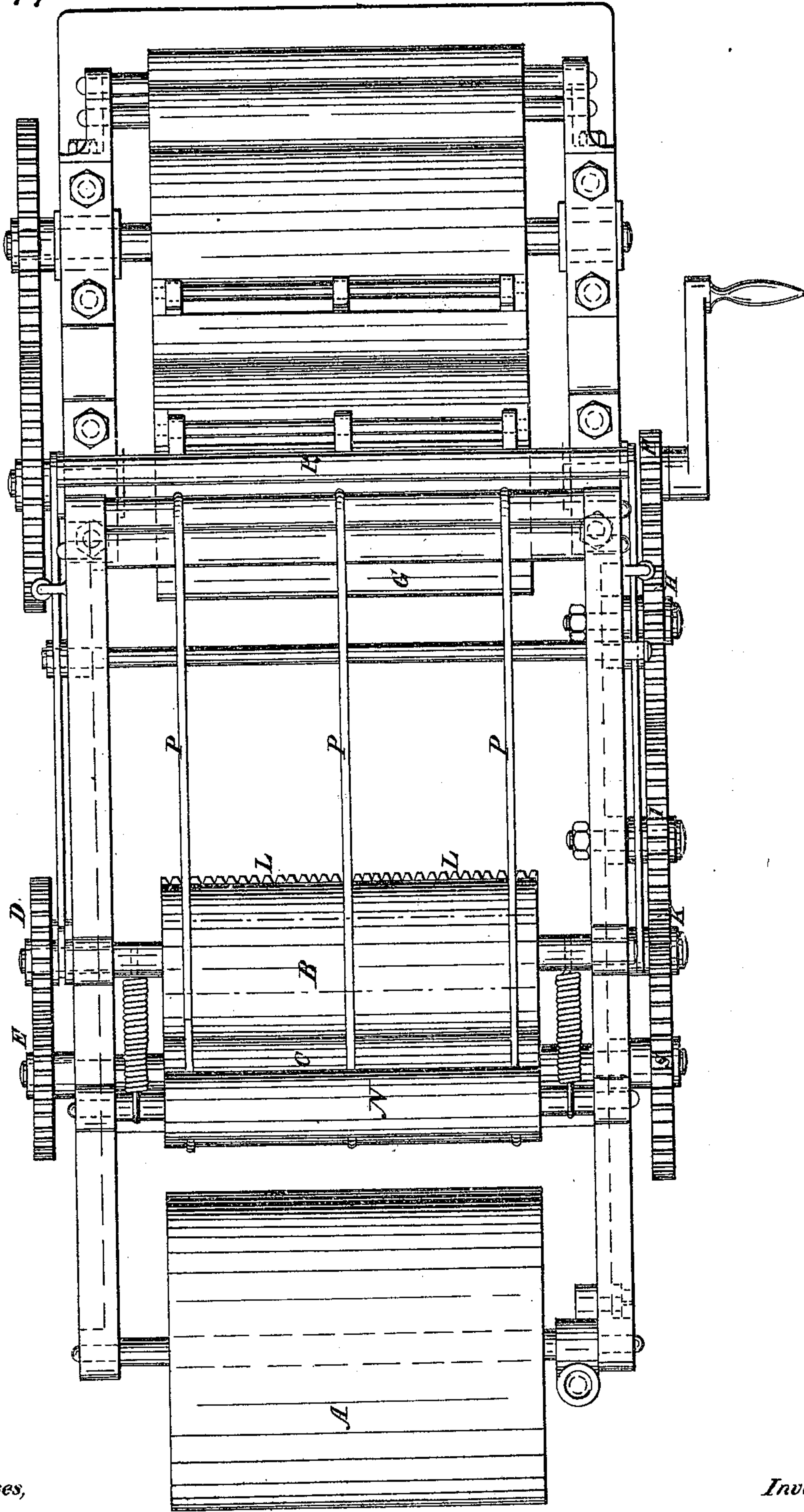
R. M. Hoe. Sheet 2. of 2 Sheets.

Paper Feeding Mach.

No 25199.

Patented Aug. 23. 1859

Fig. 2.



Witnesses,

Wm H Birnson
Andrew De Laey

Inventor,

Rich M. Hoe.

UNITED STATES PATENT OFFICE.

R. M. HOE, OF NEW YORK, N. Y.

FEEDING PAPER TO PRINTING-PRESSES.

Specification forming part of Letters Patent No. 25,199, dated August 23, 1859; Reissued June 30, 1874, No. 5,947.

To all whom it may concern:

Be it known that I, RICHARD M. HOE, of the city, county, and State of New York, have invented a new and Improved Mode
5 of Feeding Paper to Printing-Presses; and I do hereby declare that the following is a full and accurate description thereof, reference being had to the accompanying drawings and to the letters of reference marked
10 thereon.

The nature of my invention consists in feeding a printing machine from a roll of paper and cutting or separating the paper into sheets before any impression is taken
15 on it from the types.

To enable persons skilled in the art to make and use my invention I will proceed to describe one of the methods for its construction and operation.

20 Figure 1, is a side elevation; and Fig. 2, is a plan of the machine.

(A) is the roll of paper to be printed. It is cut into sheets by passing between the cutting cylinders (B) and (C) the circumference of these cylinders being just equal to the length of paper required to be cut off for a sheet. They are geared together by the wheels (D) and (E) and are driven by the pinion (F) on the shaft of the impression cylinder (G) through the intermediate wheels (H, I, K, S). The pinion (F) and the wheel (S) (which is keyed on the shaft of the cutting cylinder C) are in the proportion of one to three because the impression
35 cylinder (G) makes three revolutions to every sheet printed, while the cylinder (C) makes but one. A cutter (L) is fixed on the periphery of the cylinder (B) parallel to its axis, and projects out a little beyond its surface, which cylinder (C) has a groove (M) in its periphery into which the cutter (L) enters as the cylinders revolve. The cutting edge of this cutter is made into teeth like those of a saw, but all the edges
45 are sharp. In one or more places the teeth are wholly removed or cut away, and as the paper passes between the cutting cylinders (B) and (C) the points of the teeth first penetrate and finally separate the sheet
50 from the roll, except in the places where the

teeth are removed from the cutter. By this means the sheets are left slightly attached together.

(N) and (O) are two pressure rollers for keeping the paper distended while being
55 cut.

Conducting tapes (P) and (Q) pass around the cutting cylinders in the places where the teeth are removed from the cutter (L) and the sheets are conducted forward
60 by them to the impression cylinder (G).

It will be seen from the relative sizes of the impression cylinder to the pinion (F) and of the wheel (S) to the cutting cylinders (B) and (C) that the periphery of the im-
65 pression cylinder moves several times as fast as that of the cutting cylinders and the endless tapes (P) and (Q). These tapes separate slightly as they approach the impression cylinder and partially liberate the sheet, so
70 that when the front edge of the sheet arrives between the drop roller (R) and the impression cylinder, it is seized by them and easily torn from the roll and drawn forward out of the tapes to be printed. 75

This apparatus is particularly applicable to paper that requires to be passed but once through the printing machine, as for instance, to be printed only on one side, or to perfecting machines that print both sides
80 at one application.

I do not wish to be understood as limiting my claim of invention to the special construction herein specified, as equivalents may be substituted for either or all of the
85 elements without changing the principle of my said invention.

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

1. The combination of the feeding mechanism, cutting apparatus, and the printing machine, or their equivalents, in the said combination, for feeding the paper from a roll to a printing machine and cutting or partially cutting it into sheets as it passes
95 along to be printed, as set forth.

2. I also claim making the cutter so as to leave the several sheets united in certain places, substantially as described, in combination with the conducting tapes as de-
10

scribed, or the equivalents thereof, so that the conducting tapes may pass around the cutter cylinder, as set forth.

3. And I also claim in combination with the cutter cylinder and the grooved cylinders, substantially as specified, or the equivalents thereof, the employment of the two

pressure rollers or their equivalent, as described, for keeping the sheet distended.

RICHARD M. HOE.

Witnesses:

WM. H. BISHOP,
ANDREW DE LACY.