

(No Model.)

C. E. JEWELL.

METHOD OF RE-INFORCING PRESS COPIES.

No. 429,855.

Patented June 10, 1890.

Fig. 1.

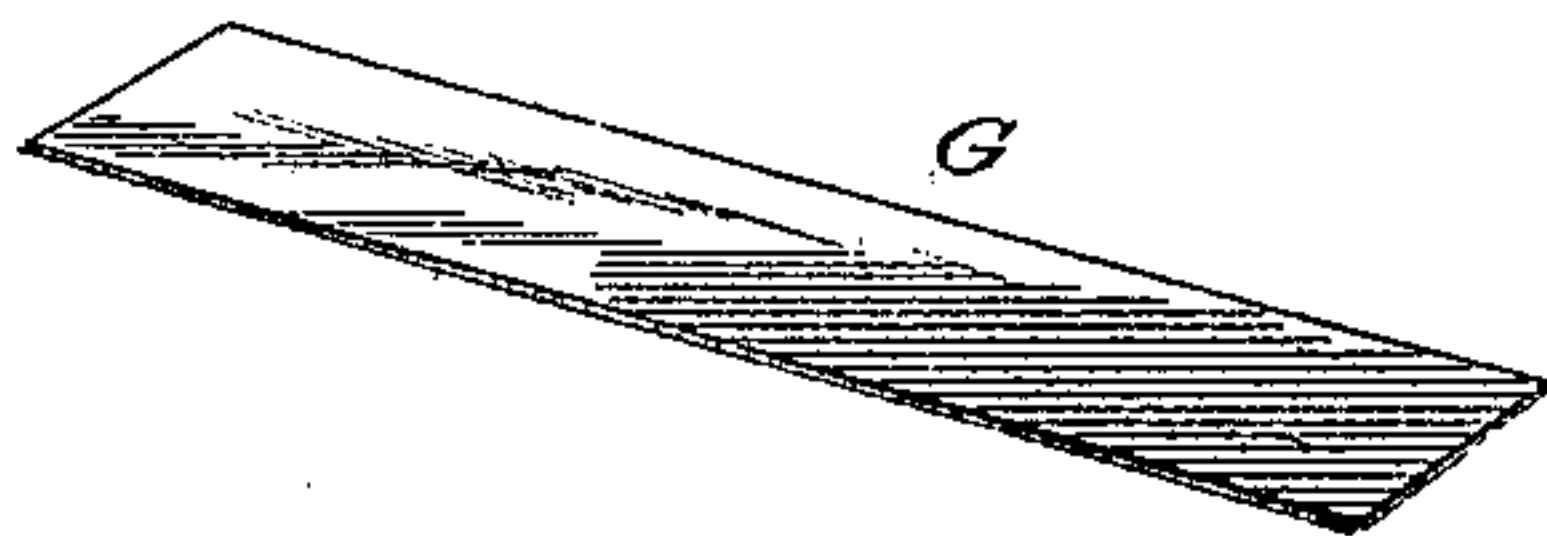


Fig. 2.

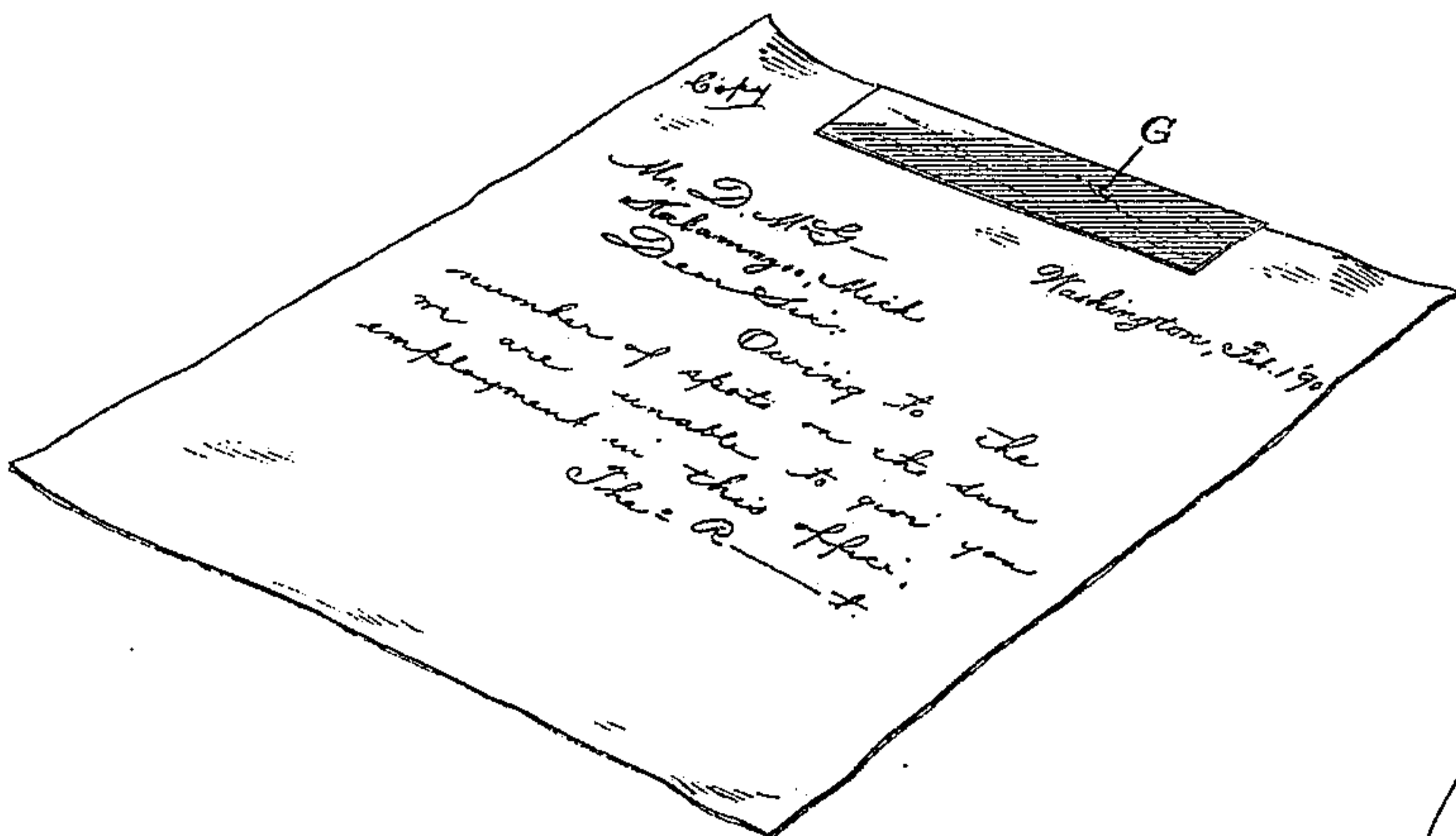
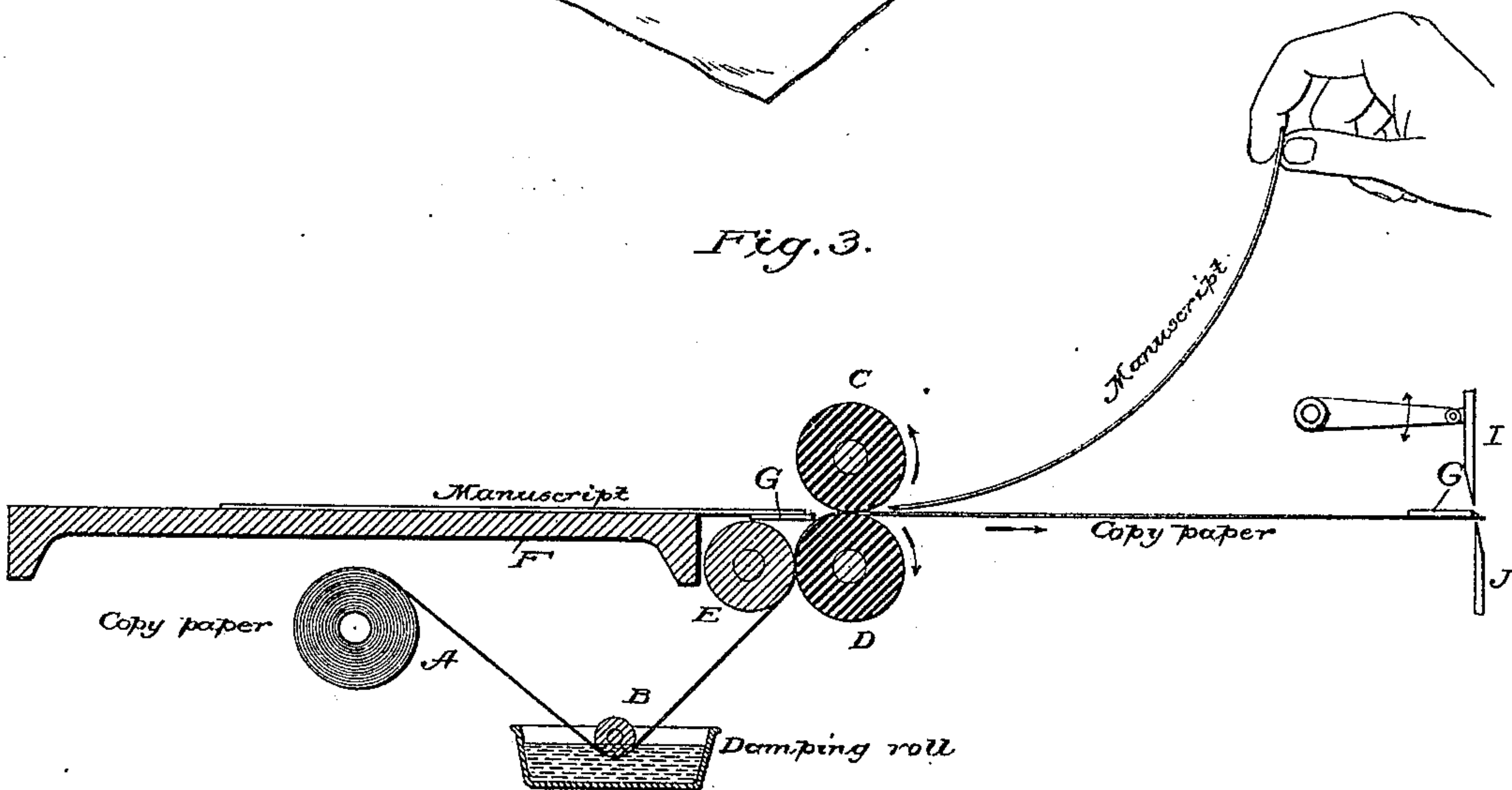


Fig. 3.



Witnesses:

William M. Mortimer
William R. Roney

Inventor:

C. E. Jewell
By Phil. T. Dodge
Atty

UNITED STATES PATENT OFFICE.

CHARLES E. JEWELL, OF TORONTO, ONTARIO, CANADA, ASSIGNOR TO THE
OFFICE SPECIALTY MANUFACTURING COMPANY, OF ROCHESTER, NEW
YORK.

METHOD OF RE-ENFORCING PRESS-COPIES.

SPECIFICATION forming part of Letters Patent No. 429,855, dated June 10, 1890.

Application filed February 14, 1890. Serial No. 340,453. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. JEWELL, of Toronto, in the Province of Ontario, and Dominion of Canada, have invented certain Improvements in the Method of Re-enforcing Press-Copies, of which the following is a specification.

At the present day it is the common practice to make press-copies of written instruments on loose sheets of thin paper, which are afterward perforated and strung upon filing-wires or equivalent fastenings. A serious objection to this system of filing copies resides in the fact that the paper, possessing little strength, is frequently torn at the edges from the perforations outward, thus allowing the sheets to escape or work out of place.

The object of my invention is to overcome this difficulty by strengthening or re-enforcing the edges of the sheets at the same time that the copies are made; and to this end it consists, essentially, in applying to the copy-sheet immediately before it is subjected to pressure a re-enforcing strip coated with adhesive material, which is caused by the pressure to permanently adhere to the sheet.

My invention may be practiced in connection with copying-presses of any approved form and without reference to the special means employed for damping the copy-sheet; but it is intended more particularly for use in presses of the general form represented in Letters Patent No. 416,628, granted to M. R. Jewell on the 3d day of December, 1889, in which the copies are formed upon a continuous web or sheet of paper which passes first through a damping mechanism and then, in connection with the manuscript, between two pressure-rolls. In operating this press it is my practice to apply the re-enforcing strips, coated on one side with a dry adhesive material, to the surface of the damp copy-sheet immediately in advance of the pressure-rolls, so that in passing through the rolls the adhesive on the surface of the strip is dissolved or softened by moisture received from the copy-sheet and at the same instant pressed into intimate contact with the sheet, so that it will remain thereon after being relieved from pressure. When thus operating on a continuous web of paper,

the re-enforcing strips are applied at such points or intervals that they will fall between the copies or impressions at the points where the web is to be cut into separate sheets.

In the accompanying drawings, Figure 1 is a perspective view of my re-enforcing strip, which may be made of paper, cloth, or other suitable material in any appropriate shape, coated on one side with soluble glue, gum, or other adhesive. Fig. 2 is a perspective view of a copy-sheet having my re-enforce applied thereto. Fig. 3 is a sectional view illustrating the manner in which the re-enforce is applied.

Referring to the drawings, A represents a continuous web of copy-paper, and B a pan to contain the water through which the web is passed.

C D are the two rubber rolls between which the web is delivered and by which it is brought into forcible contact with the re-enforcing strips and with the manuscript.

E is a roll acting against roll D to remove any excess of moisture from the web or copy-sheet before it passes between the pressure-rolls.

F is a table to sustain the manuscript during its delivery between the pressure-rolls to the surface of the copy-sheet. The several rolls turn in the direction indicated by arrows.

In practicing my invention a re-enforcing strip G is applied with its adhesive surface against the upper surface of the damped copy-sheet between or immediately in advance of the press-rolls, and is followed immediately by the manuscript, which is applied face down. As the copy-sheet and strip pass between the rolls the latter is damped and applied by strong pressure to the copy-sheet, after which the manuscript, following through the rolls, is copied upon the sheet, as usual, the copies and the strips alternating on the sheet. The sheet or web is then cut into proper lengths. One of the resulting completed copy-sheets is shown in Fig. 2.

In the use of ordinary letter-presses, in which separate copy sheets or leaves are used, the adhesive strip is applied to the surface of the copy-sheet and subjected to pressure at the same time that the copy is made.

The severance of the web may be effected by any suitable means—such, for example, as

the vertically-swinging blade I, overhanging the web and co-operating with the underlying stationary blade J, as shown in Fig. 3.

Having thus described my invention, what I claim is—

1. The method of producing strengthened sheets of copies, consisting in damping a continuous web or strip of copying-paper and passing the same between pressure-rollers in company with alternating manuscript sheets, and re-enforcing strips coated with a dry adhesive and thereafter severing the web adjacent to the strips into sheets.

2. The method of producing a re-enforced press-copy, consisting in damping the copy-sheet, applying thereto the manuscript and an adhesive re-enforce, and pressing both into intimate contact therewith at one operation.

In testimony whereof I hereunto set my hand, this 20th day of December, 1889, in the presence of two attesting witnesses.

CHARLES E. JEWELL.

Witnesses:

ANDY MCFARLAND,
W. H. MORDEN.