

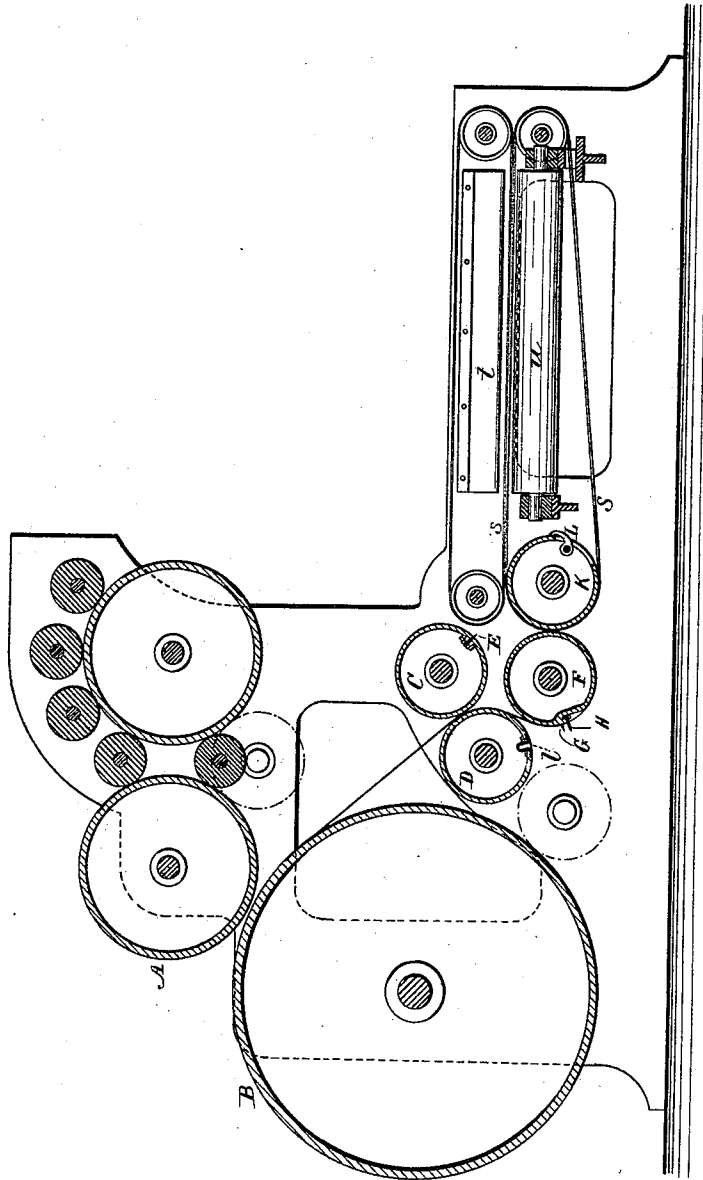
(No Model.)

W. SCOTT.

MECHANISM FOR CUTTING AND DELIVERING PRINTED PAPER.

No. 470,308.

Patented Mar. 8, 1892.



Witnesses

Chas H. Smith
J. Hail

Inventor

Walter Scott

per Lemuel M. Lurell

att'y

UNITED STATES PATENT OFFICE.

WALTER SCOTT, OF PLAINFIELD, NEW JERSEY, ASSIGNOR, BY MESNE ASSIGNMENTS, TO ROBERT HOE, STEPHEN D. TUCKER, THEODORE H. MEAD, AND CHARLES W. CARPENTER, OF NEW YORK, N. Y.

MECHANISM FOR CUTTING AND DELIVERING PRINTED PAPER.

SPECIFICATION forming part of Letters Patent No. 470,308, dated March 8, 1892.

Application filed September 30, 1881. Serial No. 42,959. (No model.)

To all whom it may concern:

Be it known that I, WALTER SCOTT, of Plainfield, in the county of Union and State of New Jersey, have invented an Improvement in Cutting and Delivering Printed Paper, of which the following is a specification.

In Letters Patent No. 164,695, granted to me June 22, 1875, a device is described for partially separating paper into sheets from a web and then completing the separation by breaking the paper at the uncut filaments, and a gripper is employed to seize the advancing edge of the sheet.

My present invention is made with reference to laying one sheet on another and delivering the two superimposed sheets together to a folding-machine; and it consists in combinations of devices hereinafter fully described and specifically claimed.

In the drawing I have represented my invention by an outline or diagrammatic figure illustrating the relative positions of the parts in a vertical longitudinal section of the machine.

After the web of the paper receives its last impression between the printing-cylinders A B it passes in between the cylinders C D. The cylinder C has a knife or cutter E with a serrated edge that perforates the paper but does not entirely separate the sheet from the web. In the cylinder D there is a groove *l* for the edge of the cutter E to pass into in the cutting operation. The web of paper passes partially around the cylinder D until it reaches the cylinder F. Upon this cylinder F there are pins G, that stick into the paper near its advancing edge. Hence these pins cause the sheet of paper to move around with the cylinder F until the grippers L of the cylinder K take the advancing edge of the sheet and draw it off the pins on the cylinder F, the latter having recesses in advance of the pins, so as to allow the tail ends of the sheets to be depressed by the grippers, whereby the latter may enter beneath and seize the heads of the sheets. Upon this cylinder F there is a web-breaker H in the form of a blade, that is placed so that it enters into the groove *l* of the cylinder D as that groove passes the line of contact between D and F. The web-breaker H is interrupted at the places that correspond

in position to the grippers L, so as not to interfere with the grippers in seizing the advancing end of the sheet, and by preference the paper is entirely separated by the cutter E at the places where the grippers L act, so as to allow the grippers to take the advancing edge of the sheet. If the paper is not entirely cut at these places, the grippers break off any remaining filaments as they pass into the recesses in the cylinder F adjacent to the web-separator H at the moment of grasping the sheets and transferring them to the cylinder K.

The parts are placed and timed so that the partial separation of the sheet as it passes between cylinders C and D is at the proper place. Then the sheet as it passes between cylinders D and F is fully separated by the web-breaker H, and the advancing end of the next sheet is held by the pins G.

The grippers L are made to act once in every two revolutions of cylinder F. Hence one sheet will remain upon cylinder F until it makes a complete revolution, and the second sheet is lapped upon the first sheet and held by the pins G until the advancing ends of both sheets are taken by the grippers L and drawn off cylinder F upon cylinder K, so that the cylinder F will be ready to receive the first sheet of another pair of superimposed sheets, as aforesaid.

It is to be understood that the circumference of the cylinder F corresponds to the length of the sheet of paper.

The belts *s*, that convey away the sheets, and the blade *t* and folding-rollers *u* are of ordinary construction and do not require further description.

By the use of pins and the web-breaker greater accuracy is obtained, because the sheets remain together until they are simultaneously taken by the pins and broken apart by the breaker H.

I claim as my invention—

1. The combination, with the cylinder C, serrated knife E, and the cylinder D, having a groove for said knife, of the gathering-cylinder F, the pins G, and the web-breaker H adjacent to each other on said cylinder F, the cylinder K, and the grippers L, operated once to a plurality of revolutions of cylinder F to

grasp the advancing edges of the sheets and remove them from the cylinder F, substantially as set forth.

2. A sheet cutting and gathering mechanism consisting of the cylinder C, having a cutting-blade E, the cylinder D, having a groove l, and a cylinder F, having web-breaker H and holding-pins G, said cutting-blade and

web-breaker co-operating with the groove l, substantially as described.

Signed by me this 22d day of September, 10
A. D. 1881.

WALTER SCOTT.

Witnesses:

HAROLD SERRELL,
WILLIAM G. MOTT.