

(No Model.)

W. W. COLLEY.

MACHINE FOR CUTTING AND WINDING PAPER.

No. 365,796.

Patented July 5, 1887.

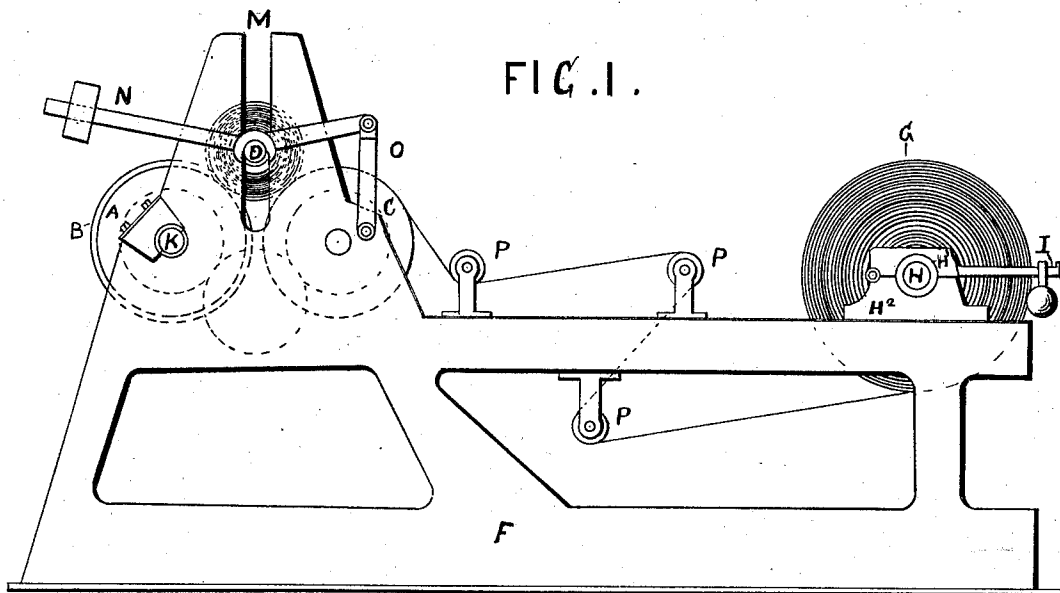
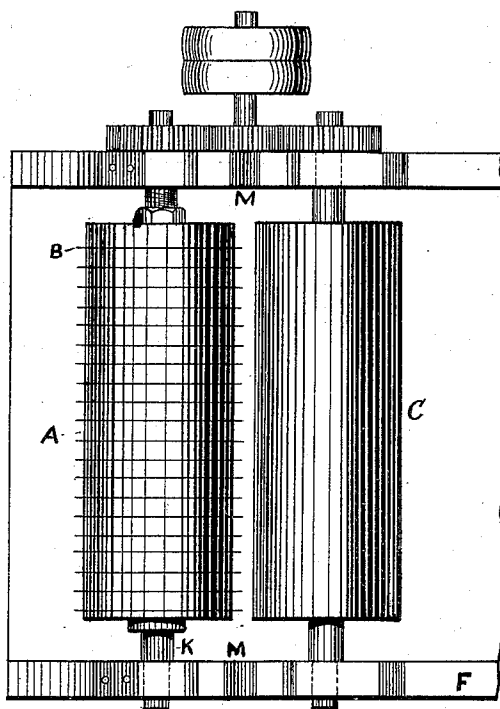


FIG. 2.



Witnesses
James Harper Riches
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FIG. 3.



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WALTER WILLIAM COLLEY, OF CAMBERWELL, LONDON, ENGLAND.

MACHINE FOR CUTTING AND WINDING PAPER.

SPECIFICATION forming part of Letters Patent No. 365,796, dated July 5, 1887.

Application filed April 13, 1886. Serial No. 198,771. (No model.) Patented in England February 27, 1882, No. 958; in France August 26, 1882, No. 150,832; in Belgium August 28, 1882, No. 58,879, and in Germany September 5, 1882, No. 22,030.

To all whom it may concern:

Be it known that I, WALTER WILLIAM COLLEY, a subject of the Queen of Great Britain, residing at Camberwell, London, England, have invented an Improved Machine for Cutting Paper or Card-Board into Strips and Reeling Same into Rolls for Use, (for which I have obtained a patent in Great Britain No. 958, bearing date February 27, 1882; in France, No. 150,832, dated August 26, 1882; in Belgium, No. 58,879, dated August 28, 1882, and in Germany, No. 22,030, dated September 5, 1882,) of which the following is a specification.

My invention relates to a machine for cutting a web of paper of the width as it comes from the mill into narrow strips suitable for use in printing-telegraphic instruments, tickets for tram-cars, and various other purposes; and it is also suitable for cutting thin card-board into strips of a width suitable for railway and other tickets, labels, and other purposes, and, during cutting, reeling such strips into rolls for use. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my cutting and reeling machine; Fig. 2, a plan of part embodied in Fig. 1; Fig. 3, a detail view of winding spindle and bobbins embodied in Fig. 1.

The cutting and reeling machine consists, mainly, of a cylinder, A, furnished with circumferential knives B, a fluted cylinder, C, and a spindle, D, carrying the bobbins E, on which the strips are cut and wound. This spindle is mounted over the interval between the two cylinders A C and pressed down, but with freedom to rise as the diameter of the bobbins is increased as the cut paper is wound upon them.

F is a frame of suitable construction, in which the various parts of the machine are mounted; G, a roll of paper as delivered from the maker, having a spindle, H, passed through its spool or quill, with collars or journals H' placed upon each end of said spin-

dle and supported in break-bearings H², attached to frame F. The upper part of bearings H² is hinged to the lower part and has 50 attached to it a lever, I, carrying a weight to regulate the tension of the paper while being unwound, cut, and rewound. The cylinder A is constructed of a number of washers. Slipped on the shaft K between each washer, 55 or, as may be required, is a circular knife, B, the knives and washers being pressed firmly together by screw-nuts on shaft K. The cylinders A C are mounted in frame F in suitable bearings, cylinder A being made readily 60 removable to permit the readjustment of the knives to the width of the strips it is desired to cut. The two cylinders A C are driven in the same direction from a shaft, L, by gearing, as represented at Fig. 2. The bobbins E, 65 which are preferably of wood, are slipped onto their shaft D, which is guided in vertical slots M of the frame and is pressed downward by weighted levers N, formed with bearings bearing on the journal ends, said levers 70 being jointed to rods O, jointed to frame F. The position of the bobbin-spindle D during work is directly over the interval between the cylinders A C, as shown. The bobbins E correspond in width to the interval between the 75 knives B, and come between the latter, so as to rest partly upon both cylinders A C. The web of paper is drawn from the roll G and carried round and over tension-rollers P, thence over the cylinder C to the bobbins, 80 which press the paper down upon the knives B, whereby it is cut into strips, which are at the same time wound onto the bobbins E by frictional contact with the two cylinders. Cylinder C has its surface longitudinally fluted to 85 give better frictional bite.

I am aware that a cylinder composed of washers and having circular knives between has, previous to this application, been used in machines for cutting paper, and I make no 90 claim, separately, to such a formed cylinder and knives; and I am aware of the patent granted to E. Dangoise, No. 209,868, of November 12, 1878.

I am also aware of British patent granted to E. E. Colley, No: 1,692, of April 21, 1876.

What I claim, and desire to secure by Letters Patent of the United States, is—

5 In a machine for the purposes described, the combination of the cylinder A, provided with circumferential knives B, winding-cylinder C, arranged parallel with and near A, gearing to connect shafts of both cylinders to
10 enable them to be driven together and in same

direction, spindle D, and bobbins E, arranged to bear on knives and winding-cylinder C, as and for the purposes specified.

WALTER WILLIAM COLLEY.

Witnesses:

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