

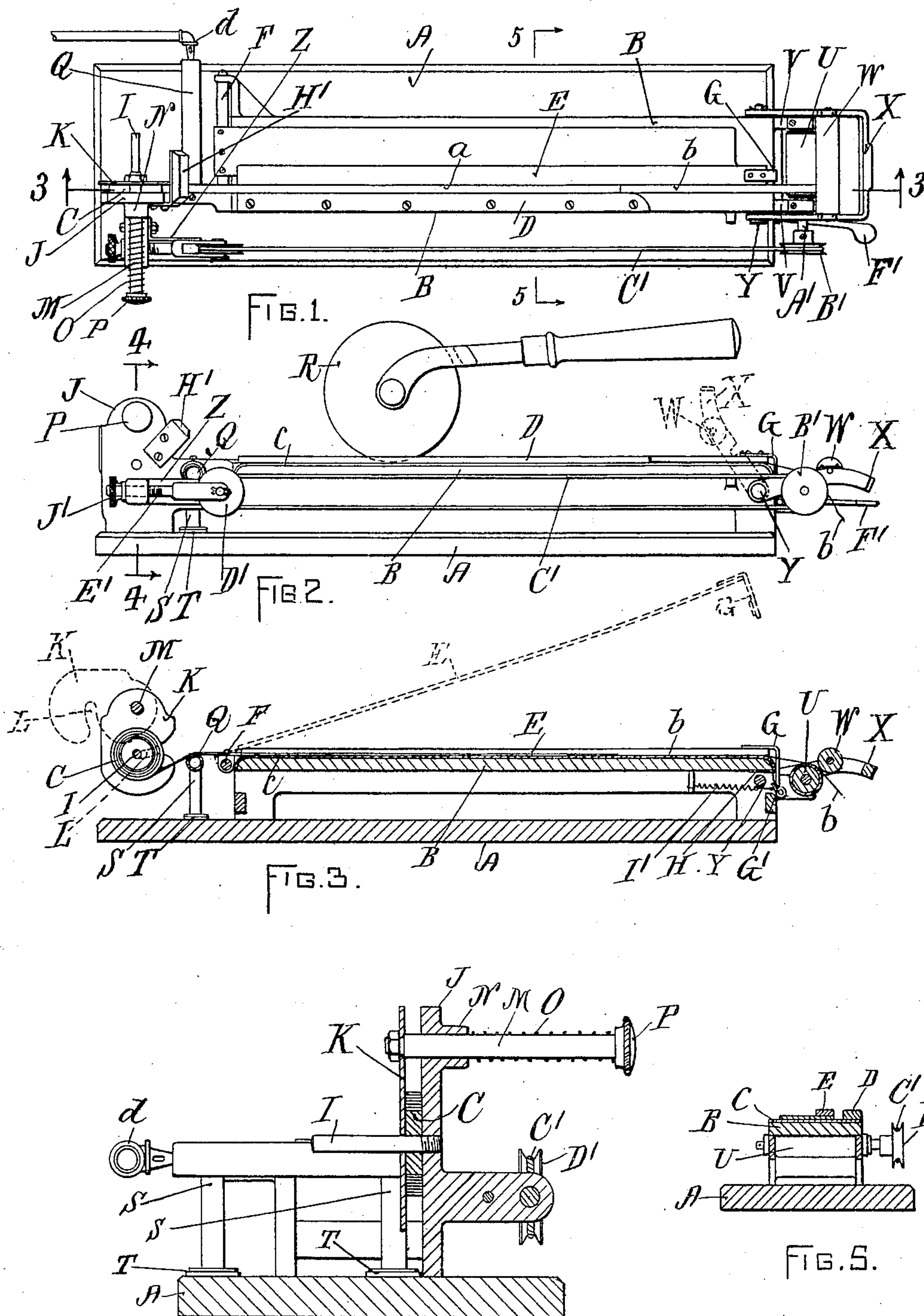
No. 835,402.

PATENTED NOV. 6, 1906.

W. H. COE.

APPARATUS FOR APPLYING METALLIC LEAF.

APPLICATION FILED MAY 31, 1905.



WITNESSES:

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FIG. 4.

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AT TY.

UNITED STATES PATENT OFFICE.

WALTER H. COE, OF PROVIDENCE, RHODE ISLAND.

APPARATUS FOR APPLYING METALLIC LEAF.

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Specification of Letters Patent.

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Application filed May 31, 1905. Serial No. 263,151.

To all whom it may concern:

Be it known that I, WALTER H. COE, a citizen of the United States, residing at Providence, in the State of Rhode Island, have invented a new and useful Improvement in Apparatus for Applying Metallic Leaf, of which the following is a specification.

My invention consists in the improved construction of an apparatus whereby a fillet of gold, silver, aluminium, composition, or other metal leaf may be readily transferred from a package-roll to the periphery of a book-binder's fillet-roller or to the face of a gilding-die.

In the accompanying drawings, Figure 1 represents the top view of the apparatus. Fig. 2 represents the front side elevation. Fig. 3 represents a longitudinal section taken in the line 3 3 of Fig. 1. Fig. 4 represents an enlarged transverse section taken in the line 4 4 of Fig. 2. Fig. 5 represents a transverse section taken in the line 5 5 of Fig. 1.

In the drawings, A represents the base-plate, to which the several parts of the apparatus are attached. B represents the table, over the surface of which the paper strip *b* and the accompanying fillet of metallic leaf *a* is to be drawn from the package-roll C, the said table being provided with a covering *c*, of leather or other suitable fabric. At the front side of the top of the table B is secured the fixed side guide D, which may serve to guide the front edge of the paper strip *b* upon the table and also to guide the forward movement of the fillet-roller R, and upon the table, at the opposite side of the paper strip, is placed the adjustable side guide E, the paper strip *b* being thus drawn forward over the table between the said guides D and E; but, if desired, a single side guide may be employed in carrying out my invention. The adjustable side guide E is pivoted upon the fixed pin F and slidable thereon, the outer end of the said guide being provided with the spring-catch G, which by locking engagement with the plate H at the under side of the table B serves to retain the said guide in its set position. The guide E is flexible and downwardly curved from its ends at its middle portion, so that when it is held in engagement with the surface of the table the middle portion of the said guide will be held by its resilience in close contact therewith, thus serving to prevent the lateral

movement of the paper strip from between the guides D and E.

The package-roll C is held for rotation on the pin I, which projects from the standard J, being held thereon by means of the pressure-plate K, which is provided with the notch L, adapted to receive the pin I, the said plate K being secured to the bar M, which is rotatable and slidable in the bearing N at the upper end of the said standard J. Upon the bar M is placed the spiral spring O, which serves to draw the pressure-plate K automatically from its extreme limit of outward movement up to the side of the package-roll C to properly friction the same, the said pressure-plate K being thus adapted for action upon package-rolls of different widths without change of adjustment, which is a valuable feature of my invention. The outer end of the rotatable and slidable bar M is provided with the milled head P, by means of which the plate K may be turned to one side, as shown by dotted lines in Fig. 3, for the insertion of a package-roll upon the pin I or for its removal therefrom, the required outward movement of the said plate K being at the same time imparted by the hand of the operator.

Between the package-roll C and the table B is placed the heating-tube Q, over which the paper strip and fillet of metallic leaf from the package-roll C may be drawn, the said tube being heated by any suitable means, as by means of small jet of gas from the pipe *d* or by means of electricity, the heat serving to loosen the fillet of metallic leaf from the paper strip, whereby the said fillet will be more readily withdrawn from the paper strip onto the periphery of the fillet-roller R, from which it is to be transferred to the cover of the book. The heating-tube Q is supported from the base A by means of the standards S S, which may be separated from the said base by means of a disk of asbestos T or other similar non-conducting substance to prevent the transfer of heat therefrom.

The traction-roll U, over which the paper strip when freed from its fillet of metallic leaf is to pass, is journaled in the bearing-brackets V V at the end of the table B, the said paper strip being held against the friction-surface of the said traction-roll by means of the weighted roll W, journaled in the frame X, which is pivoted to the table B by

means of the transverse pin Y, and by raising the weighted roll W from the traction-roll U, as shown by the dotted lines in Fig. 2, the paper strip *b* may be placed in proper position between the said rolls.

Upon the end of the shaft A' of the roll U is secured the scored pulley B', over which runs the endless band C', the said endless band being held in a suitably-tightened condition by means of the tightening-pulley D', which is actuated for tightening the band by means of the screw-threaded shank E' and nut J'. A guide Z, located at the side of the shank E', serves to prevent the turning of the said shank when screwing up the said nut.

In operating with the apparatus the pressure-plate K is to be first turned away from the holding-pin I, as shown by the dotted lines in Fig. 3, and then brought back to its engaged position, as shown by the full lines, after the package-roll C has been placed upon the said pin. The paper strip and the connected fillet of metallic leaf may then be pulled by hand from the package-roll onto the table between the guides D and E, and when a sufficient length of the fillet of metallic leaf has been drawn from the package-roll onto the table the suitably-heated fillet-roller R may be passed over the same by the operator, whereby the metallic leaf will be transferred from the paper strip to the slightly-oiled periphery of the fillet-roller, from which it is to be transferred to the cover of the book, and the fillet-roller R may be guided in its movement over the table by either one of the side guides D and E, the buffer H' serving as a stop for the forward movement of the said fillet-roller.

When it is desired to employ the traction-roll U for drawing the paper strip and fillet of metallic leaf forward from the package-roll instead of drawing the same forward by hand, then upon raising the outer end of the frame X, in which the roll W is journaled, and passing the end of the paper strip between the said rolls and letting the frame X down again, so that the roll W will bear strongly upon the surface of the paper strip, the properly-imparted movement of the said traction-roll will cause the paper strip and the fillet of metallic leaf to be brought forward from the package-roll, and for properly operating the said traction-roll I have provided the endless band C', by means of which the operator by seizing the said band at the proper point may quickly move the belt to the required distance at a single motion of the arm, and whenever it is desired to adjust the side guide E for a different width of the paper strip, then by pressing down upon the lever F' the lip G' of the said lever will force back the spring-catch G, and then the side guide E may be raised, as shown by the dotted lines

in Fig. 3, and moved to its proper position along the pivot-pin F, the said lip G' being held in its backward position by means of the spring I'.

I claim as my invention—

1. In an apparatus of the character described, the combination of means for holding the package-roll, means for drawing the paper strip and fillet of metallic leaf forward from the package-roll, an intermediate table, and a curved resilient guide upon the table for locating the position of the paper strip and fillet of metallic leaf.

2. In an apparatus of the character described, the combination of means for holding the package-roll, the table over which the paper strip and fillet of metallic leaf are to be drawn, and means for heating the paper strip and fillet of metallic leaf as they are being drawn from the package-roll.

3. In an apparatus of the character described, the combination of means for holding the package-roll, means for drawing the paper strip, and fillet of metallic leaf forward from the package-roll, the table over which the paper strip and fillet of metallic leaf are to be drawn, and means for heating the paper strip and fillet of metallic leaf as they are being drawn from the package-roll.

4. In an apparatus of the character described, the combination of means for supporting the package-roll, and the table over which the paper strip and fillet of metallic leaf are to be drawn, with the resilient adjustable guide, deflected downward from its ends at its middle portion, and means for holding the guide closely upon the table.

5. In an apparatus of the character described, the combination of means for supporting the package-roll, and the table over which the paper strip and fillet of metallic leaf are to be drawn, with the pivoted adjustable guide, provided at its ends with the spring-catch for holding the guide in close contact with the table, and the lever for disengaging the spring-catch.

6. In an apparatus of the character described, the combination of means for supporting the package-roll, the table, the traction and pressure rolls acting upon the paper strip to draw the paper strip and the fillet of metallic leaf forward from the package-roll along the table, the band-pulley for driving the traction-roll, the tightening-pulley, the hand-operated endless band held upon the said pulleys, the fillet-roller, and the guide for the movement of the fillet-roller along the paper strip.

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Witnesses:

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