

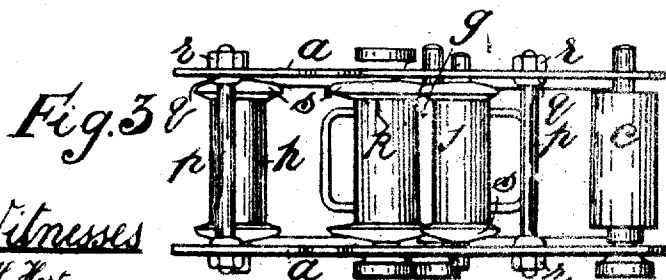
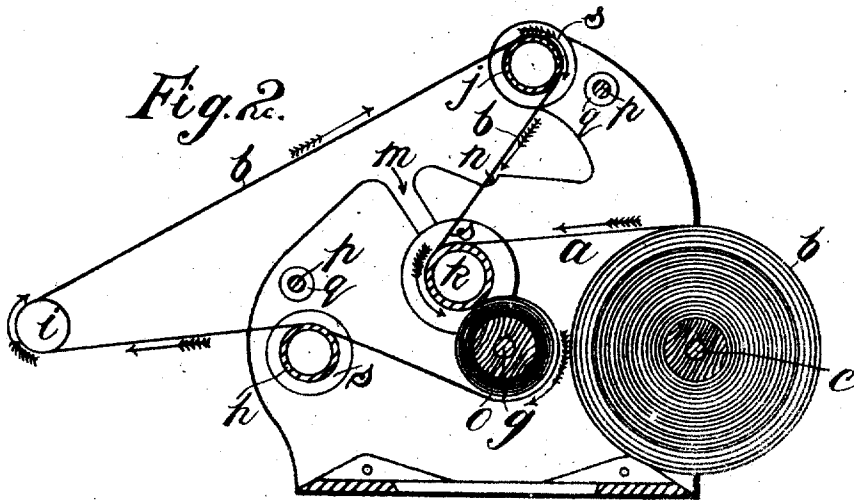
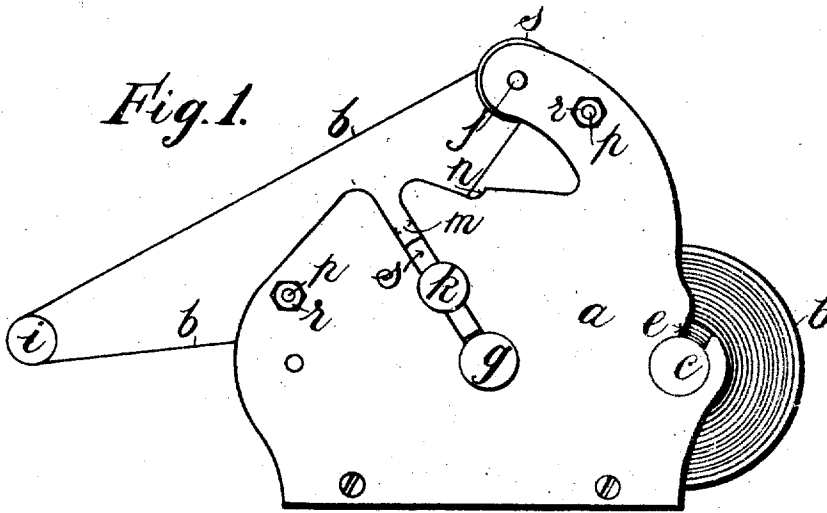
J. ELLIOTT.

DEVICE FOR PAYING OUT PAPER TO AND WINDING UP PAPER FROM ADDING AND LIKE
MACHINES.

APPLICATION FILED JAN. 12, 1910.

973,018.

Patented Oct. 18, 1910.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN ELLIOTT, OF BARNSELY, ENGLAND.

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973,018.

Specification of Letters Patent.

Patented Oct. 18, 1910.

Application filed January 12, 1910. Serial No. 537,842.

To all whom it may concern:

Be it known that I, JOHN ELLIOTT, a subject of the King of Great Britain and Ireland, and resident of Barnsley, in the county of York, England, president of the Barnsley Co-operative Society Limited, have invented certain new and useful Improvements in Devices for Paying Out Paper to and Winding Up Paper from Adding and Like Machines, of which the following is a specification.

My invention relates to a device for use in connection with adding and registering machines of the Burrough's or other type in which a roll of paper is employed on which the amounts of purchases and totals of individual purchases or figures are printed, the object being to provide means for paying out the roll of paper to the machine and taking up the paper coming from the machine at the same rate it is given out, instead of allowing such paper to accumulate on the floor, bench or table adjacent to the machine, as it issues from the latter.

My invention consists essentially of a suitable supporting frame and a number of rollers carried by the frame from and on to which the roll paper can be unwound and wound, respectively, and guided when passing into and out of the machine.

My invention will be fully described with reference to the accompanying drawings in which,

Figure 1 is a side elevation of a device constructed in accordance with my invention, Fig. 2 vertical section of same and Fig. 3 plan with the paper strip removed from the rollers.

In accordance with my invention I employ a suitable frame *a* provided with slotted or other bearings adapted to receive, sustain and guide a number of rollers, one of which is the roller containing the reel of paper ribbon *b* to be paid out to the adding machine, the other roller to receive the printed paper coming from the machine, while other rollers are adapted to guide and press the paper ribbon. The arrangement I at present prefer is to mount a roller *c*, containing the plain reel of paper *b* at the rear of the frame, the roller being supported in slotted bearings *e* so that it may be easily placed in or taken out of position. This is the delivery roller and it is adapted to rest on or against or adjacent to a receiving

roller *g* on which the paper coming from the machine is to be wound. The plain paper is led in the direction of the arrows over the roller *k* to the second roller *g* on which the paper is wound as hereinafter described and then over a guide roller *h* to the machine, the loop *i* at the extreme left of the drawings indicating the position of the paper inside the machine. The paper follows the direction of the arrows over a guide roller *j* and thence under the guide and pressure roller *k* to the receiving roller *g* before referred to on which it is wound. The rollers *g* and *k* are mounted in inclined slotted bearings *m* so that both rollers can be easily removed when threading the paper in the first instance, the guide and pressure roller *k* being lifted up and rested in the fork-shaped portion of the frame at its extreme inward point, the roller *g* being rested in the depression *n* in the forward portion of the frame. By the means described the roller *g* to receive the printed slip coming from the machine is located in the loop *o* of the plain paper between the roller *c* and guide roller *h* consequently the peripheral motion communicated to the roller *g*, as the paper passes forward, causes the printed strip *b* to be wound by frictional contact on such roller *g* at exactly the same rate of speed as the plain paper is given out to the machine. The guide and pressure roller *k* gives sufficient frictional pressure to keep the roller *g* in contact with the paper being fed forward. The slotted bearings enable the reels or rollers to accommodate themselves according to their increasing or decreasing diameters.

The device is placed in close proximity to the adding machine and is usually made for a standard width of roll paper, the cross stays *p* determining the distance apart of the side frames, such stays being secured to the frames by collars *q* and nuts *r*. The guide rollers are provided with flanges *s* to keep the ribbon in place laterally while the guide and pressure roller *k* and the axles supporting the reels *c* and *g* may have milled heads to enable them to be turned when threading and adjusting the ribbon of paper between the various rollers and also for ease in handling them when placing them in or taking them out of the frame *a*. The latter may be adapted to be adjustable laterally to take different widths of

paper, suitable rollers and spindles being employed, as required. I find, however, that as a rule only two or three widths of paper are employed in practice and it is therefore
 5 advisable to build special standard devices for the various widths.

The device entirely obviates the defects hereinbefore referred to and provides a neat, simple and efficient machine for the
 10 purpose.

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

1. In a paper feeding device, the combination, with a supporting frame provided
 15 with guides, of a paper delivering roller journaled in stationary bearings in the frame, a paper receiving roller journaled in stationary bearings at the bottom of the said guides and arranged adjacent to the paper
 20 delivery roller, a pressure roller slidable in the said guides and bearing downwardly on the paper receiving roller, and guide rollers arranged above the pressure roller and on the opposite side of the receiving roller
 25 from the delivery roller, the paper from the delivery roller being adapted to be passed therefrom once over the pressure roller, the receiving roller and the guide rollers in succession, and thence from the
 30 upper guide roller over the pressure roller

for a second time and wound upon the receiving roller under the lap of paper which passes around it first from the delivery roller.

2. In a paper feeding device, the combination, with a supporting frame, of a paper
 35 delivery roll and a paper receiving roll both journaled in the said frame, a pressure roll slidable in the frame adjacent to the said receiving roll, guide rollers also free to re-
 40 volve, and a strip of paper which also forms a driving band for revolving the receiving roll, said strip of paper being wound on the delivery roll at one end and on the receiving
 45 roll at the other end with its intervening portion passing over the pressure roll and the guide rolls, said intervening portion being provided with a loop which passes over and engages with the end portion of the
 50 paper which is wound on the receiving roll, whereby the said receiving roller is driven continuously at a speed which diminishes in proportion to the increase quantity of paper wound on it.

In testimony whereof I have hereunto set
 55 my hand in the presence of two witnesses.

JOHN ELLIOTT.

Witnesses:

WILLIAM HENRY TAYLOR,
 AMY E. EVINS.