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PATENTED AUG. 18, 1903.

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PAPER ROLL ADAPTED TO BE CUT INTO BLANKS.

APPLICATION FILED JAN. 2, 1903.

NO MODEL.

FIG. 1.

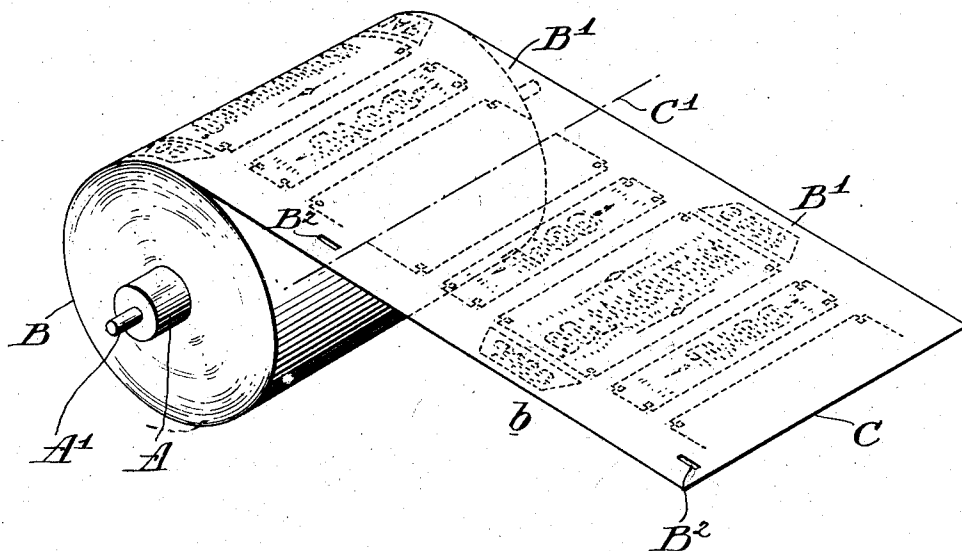
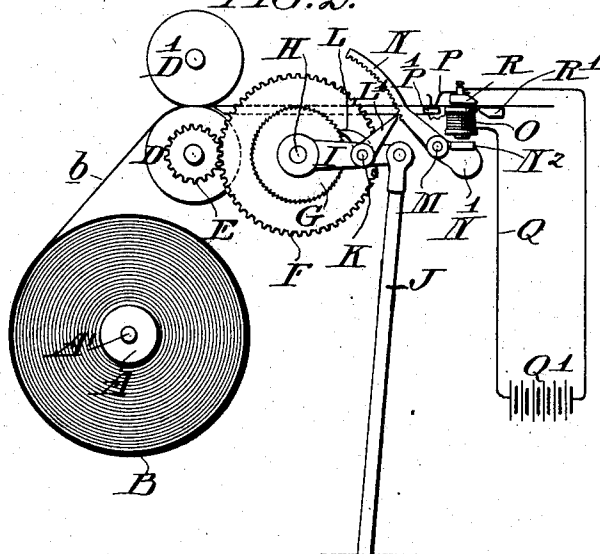


FIG. 2.



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PAPER-ROLL ADAPTED TO BE CUT INTO BLANKS.

SPECIFICATION forming part of Letters Patent No. 736,784, dated August 18, 1903.

Application filed January 2, 1903. Serial No. 137,405. (No model.)

To all whom it may concern:

Be it known that we, JOHN E. ROBINSON, a resident of the city and county of Philadelphia, and DAVID S. WILLIAMS, a resident of Glenside, in the county of Montgomery, State of Pennsylvania, both citizens of the United States of America, have invented a certain new and useful Improvement in Paper-Rolls Adapted to be Cut into Blanks, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part thereof.

Our invention relates to rolls of paper printed in panels and adapted to be cut up into similar blanks adapted for subsequent use; and the object of our invention is to provide a roll of paper having as a part of itself selecting devices which are adapted to regulate and properly place the lines on which the web is severed into blanks.

With this object in view our invention consists in a roll of paper consisting of a web printed in panels and having in the web of the paper and in fixed relation to the printed panels thereon a series of perforations which are adapted to act as selecting devices in connection with the cutting mechanism, by means of which the web of paper is cut into blanks, insuring that the severing-cuts shall occur on lines bearing a fixed relation to the printed panels. We believe that such a roll of paper is entirely new with us, irrespective of the construction and mode of operation of the blank-cutting mechanism, and it will of course be understood that practically it is necessary that the selecting-perforations should be formed in the web as it is printed, as otherwise it would be impracticable to insure that the perforations would bear the necessary fixed relationship to the printed panels.

Reference is now had to the drawings, in which—

Figure 1 is a perspective view of our improved paper-roll, a portion of the web being shown as unrolled in order to illustrate the disposition of the printed panels and perforations; and Fig. 2 is an elevation showing one form of blank-cutting mechanism adapted to operate upon our roll, said illustrated

mechanism being in part the subject-matter of our application for Letters Patent, filed September 17, 1902, Serial No. 123,731.

A indicates the center of the paper-roll, usually of wood or iron, having journals A', upon which it is supported.

B is the paper-roll proper, made up of a web *b*, printed in panels (indicated at B' B') and having formed in it a longitudinally-arranged series of perforations B² B², &c., bearing a fixed relation to the printed panels.

C indicates a line of severance, and C' the position of the next successive line on which the web is to be severed, such lines always bearing a substantially fixed relation to the perforations and to the printed panels.

In Fig. 2, D and D' indicate feed-rolls, the roll D having attached to it a gear-wheel E, which is driven by a gear-wheel F, journaled on shaft H and having attached to it a ratchet-wheel G. I is a lever-arm journaled on shaft H and given an oscillating movement through rod J and mechanism. (Not shown.) Pivoted on lever I is a pawl L, normally in position to engage ratchet G, but having attached to it a finger L'. M is a pivot on which is supported the arm N, having teeth, as shown, which are adapted to engage the finger L', said arm being normally held up out of contact with the finger by a counterweight N', having an armature-plate N² secured above it. O is an electromagnet secured above the armature N² and connected with a battery Q' by a circuit-wire Q, said wire having a fixed terminal P' and a spring-terminal P situated above it. R is a fixed knife-blade, and R' a movable knife-blade actuated by mechanism (not shown) which at proper intervals acts in connection with knife R to sever a blank from the web.

In operation the paper-web *b* is led from roll B through the feed-rolls D D', over the terminal P', and under terminal P, these terminals lying in the line of the perforations B² B², &c., and being separated by the paper at all times, except when the perforations register with the terminals, at which times only the magnet O is energized and the arm N thrown down to engage the finger L'. The

web after passing the terminals passes under knife R and over knife R'.

It will be seen that the feed-rolls are actuated to feed the paper intermittently and only when the arm I is moved to the left, and the stroke of this arm is such as to cause the feed-rolls to move through a distance slightly greater than the length of the blanks to be cut from the web; but in the construction illustrated the pawl L is drawn out of operation on the ratchet whenever a selecting-perforation comes into registry with the terminals and the feed-rolls thereby disconnected from the lever I and brought to rest with the line bearing the desired fixed relation to the printed panels in registry with the cutting edge of the knives, which of course act during the dwell in the feed of the paper.

Having now described our invention, what

we claim as new, and desire to secure by Letters Patent, is—

As a new article of manufacture, a continuous web of paper formed into a roll and printed in similar panels, said roll having a longitudinal series of perforations formed through it, the web being adapted to be severed into similar blanks having panels symmetrically disposed thereon, said perforations being symmetrically disposed and adapted to act as selecting devices to determine the operation of blank-cutting mechanism operating on the roll.

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Witnesses:

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