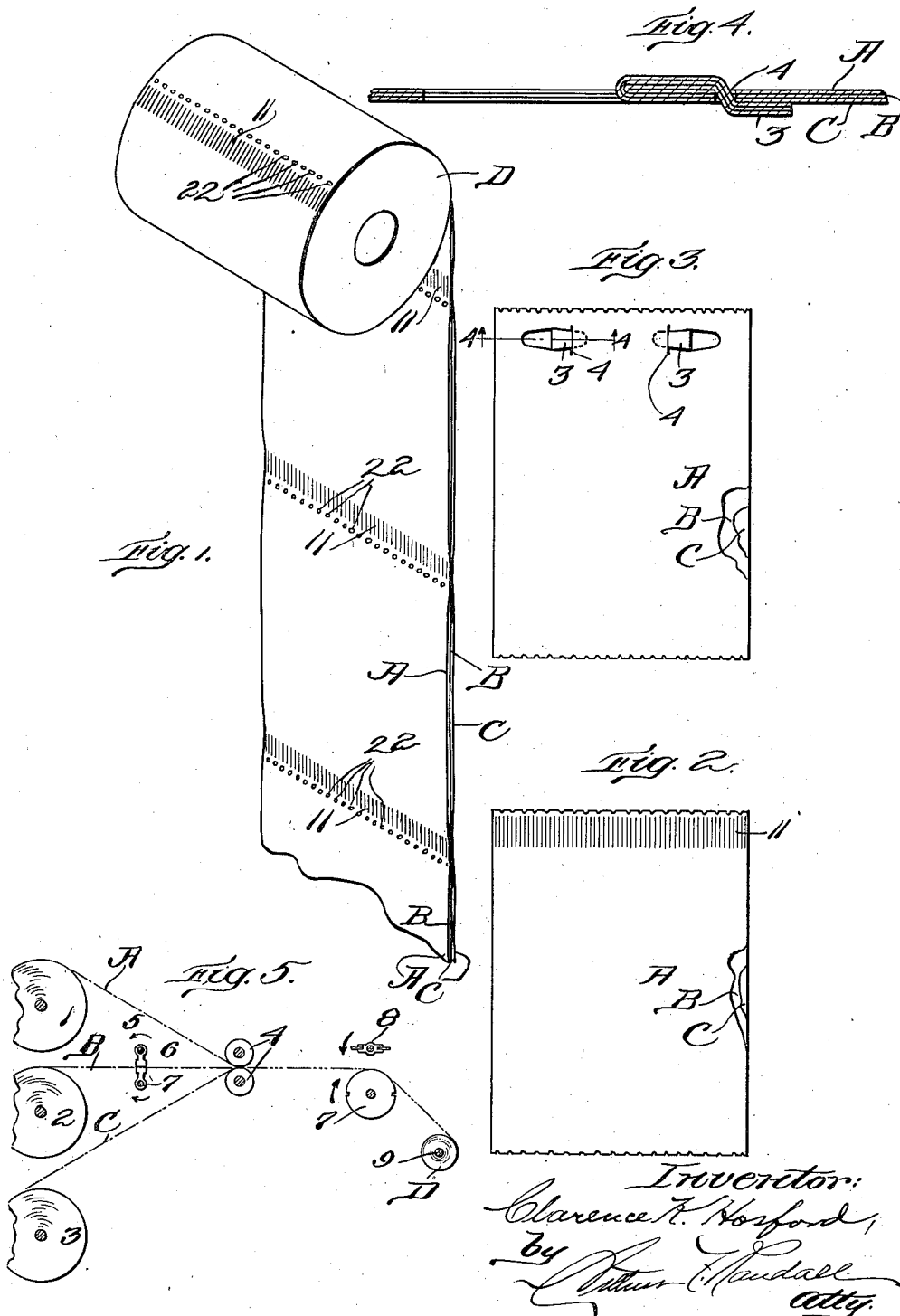


C. K. HOSFORD.
TOILET PAPER AND METHOD OF MAKING SAME.
APPLICATION FILED AUG. 13, 1915.

1,174,069.

Patented Mar. 7, 1916.



Inventor:
Clarence K. Hosford,
by *Arthur Handall*
att'y.

UNITED STATES PATENT OFFICE.

CLARENCE K. HOSFORD, OF BAILEYVILLE, MAINE.

TOILET-PAPER AND METHOD OF MAKING SAME.

1,174,069.

Specification of Letters Patent.

Patented Mar. 7, 1916.

Application filed August 13, 1915. Serial No. 45,395.

To all whom it may concern:

Be it known that I, CLARENCE K. HOSFORD, a citizen of the United States, and resident of Baileyville, in the county of Washington and State of Maine, have invented certain new and useful Improvements in Toilet-Paper and Methods of Making Same, of which the following is a specification.

My invention relates to toilet paper and method of making the same.

It has for its object to provide an improved toilet paper better adapted to the use for which it is intended than articles of this kind as heretofore constructed, and to provide an expeditious and comparatively inexpensive method of making the same.

The invention consists, first, of a toilet paper and a toilet paper strip embodying the peculiar features of construction set forth in the following description and particularly pointed out and defined in the claims at the close thereof and, second, in a new method for making the same.

In the accompanying drawings: Figure 1 is a perspective view of a strip of toilet paper constructed in accordance with my invention. Fig. 2 is an elevation of one of the sections of the strip shown in Fig. 1. Fig. 3 is a perspective view of a modification. Fig. 4 is an enlarged section on line 4-4 of Fig. 3. Fig. 5 is a diagram illustrating the method employed in making my new toilet paper.

In an application for U. S. Letters Patent filed by me on the 13th day of August, 1915, I have shown and described a machine for making toilet paper constructed in accordance with this invention said machine being illustrated diagrammatically in Fig. 5 of the accompanying drawings. Referring to this figure 1, 2 and 3 represent three supply rolls of paper strips, said strips being led forward as at A, B and C, between a pair of guide rolls 4 which bring the three strips together into superimposed relation and press them firmly together. Between the supply rolls 1, 2 and 3 and the pair of rolls 4, is arranged a paste applying mechanism 5 which operates only upon the middle strip B. This paste applying mechanism comprises two rotating pasters 6 and 7 which move in unison and at the same rate of speed as strip B and which simultaneously apply transverse lines of paste upon the opposite sides of strip B as indicated at 11, Figs. 1 and 2, at separated in-

tervals throughout the length of the latter. It will thus be seen that when the three strips A, B and C are brought together into superimposed relation at the rolls 4 the lines of paste applied to the middle strip B fastens the two outside strips A and C thereto at separated intervals throughout their length. From the rolls 4 the multi-ply toilet paper strip produced at said rolls 4 passes forward over a drum 7 coöperating with a perforator 8. Drum 7 and perforator 8 rotate at the same speed, relatively, and at the same speed as the multi-ply strip. Every half revolution of the perforator 8, the latter in coöperation with the drum 7, forms a transverse line of perforations 22 across the multi-ply strip and said perforator and drum are timed and positioned so as to produce lines of perforations close to the lines of paste. From drum 7 the perforated and pasted strips pass to a driven shaft 9 on which the strip is wound into a roll D adapted to be inserted into a holder. The shaft 9 is driven so that the paper is drawn by said shaft from the rolls 1, 2 and 3 and wound into a roll on said shaft D. Thus in making my new article the strips of paper A, B and C are brought into superimposed relation and secured together at separated intervals throughout their lengths by cement, glue or any other suitable fastening means applied to the strips, or some of them. The fastening means may be applied before the strips are brought into superimposed relation or after the strips are brought into superimposed relation.

In Figs. 3 and 4 I have shown a modification wherein the several plies of the strip are secured together by means of one or more tongues 3 formed by slitting the strip, said tongues being passed through a slot 4 provided in the multi-ply strip. This fastener is the same in principle as the well known "clipless" paper fastener that is produced by a paper fastener instrument now in common use. With a toilet paper strip constructed in this fashion the fastening means would be incorporated therein after the several plies have been brought into superimposed relation.

What I claim is:—

1. As a new article of manufacture a toilet paper comprising a plurality of superimposed strips of paper fastened together at separated points throughout their lengths, and perforated so as to tear transversely.

2. As a new article of manufacture a toilet paper comprising a plurality of superimposed strips of paper fastened together at separated points throughout their lengths, and perforated so as to tear transversely, the perforations of the several strips registering.

3. As a new article of manufacture a toilet paper comprising a plurality of superimposed strips of paper; means fastening said strips together at separated points throughout their lengths and tearing perforations formed in each strip at separated points throughout the length thereof, the perforations of the several strips registering.

4. The above described method of making toilet paper which consists in simultaneously moving a plurality of strips of paper toward a given point where they are brought together into superimposed relation and fastened together at separated points throughout their lengths so as to leave the major portions of said strips disconnected and thereafter forming tearing perforations at separated points throughout the length of the multi-ply strip thus formed.

5. The above described method of making toilet paper which consists in simultaneously winding a plurality of strips into a roll, each of said strips being drawn from a separate supply roll, and in fastening said strips together in superimposed relation at separated points throughout their lengths and in perforating the multi-ply strip thus formed at separated points throughout its length, said fastening operation and perforating operation being continuously repeated while the several strips are passing from the supply rolls to the winding roll.

6. As a new article of manufacture a toilet paper comprising a plurality of superimposed strips of paper; means fastening said strips together at separated intervals throughout their lengths, and a transverse line of tearing perforations adjacent each fastening means, the perforations of the several strips registering.

In testimony whereof I have affixed my signature.

CLARENCE K. HOSFORD.