

(No Model.)

O. H. HICKS.  
TOILET PAPER.

No. 421,497.

Patented Feb. 18, 1890.

Fig. 1.

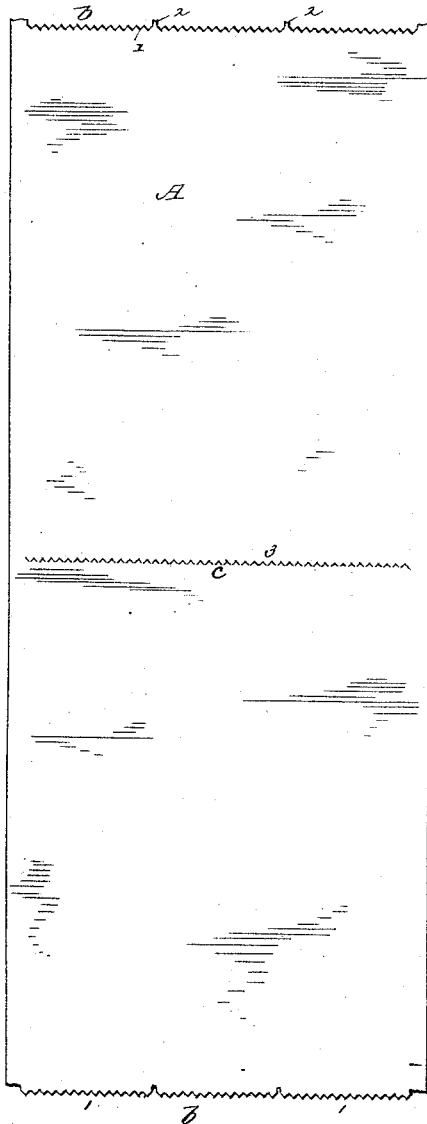


Fig. 2.

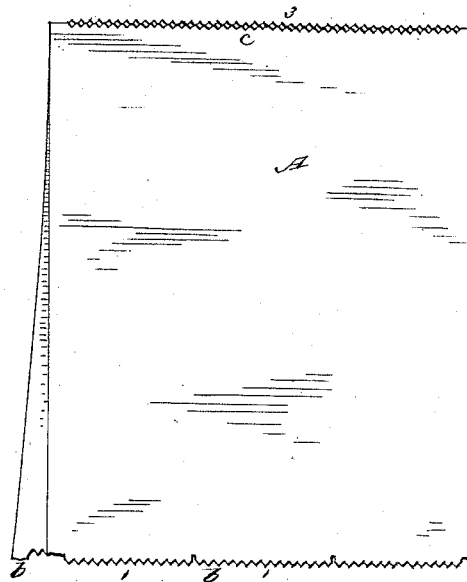
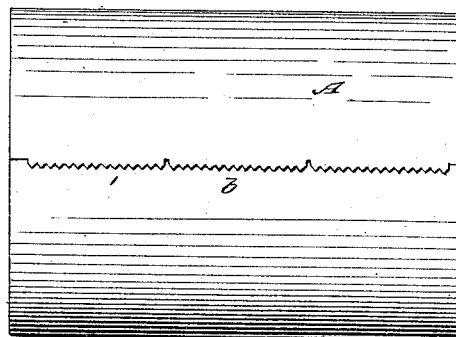


Fig. 3.



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# UNITED STATES PATENT OFFICE.

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## TOILET-PAPER.

SPECIFICATION forming part of Letters Patent No. 421,497, dated February 18, 1890.

Application filed August 26, 1889. Serial No. 321,976. (No model.)

*To all whom it may concern:*

Be it known that I, OLIVER H. HICKS, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Toilet-Paper; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the figures and letters of reference marked thereon.

Where toilet-paper is furnished in the form of a perforated web wound into a roll it is the common practice for the consumer to use two sheets at a time, said two sheets being secured either by detaching them separately from the roll and then placing them together, or else by detaching them together (while still connected) and afterward folding one upon the other. The latter method is of course preferable, because when the connected sheets are folded upon the line of perforations between them there is greater certainty of the one sheet covering the other at all points; but ordinarily in this kind of paper the perforations are of such a character as to require considerable force and some skill to always effect a separation of the sheets at the points where said perforations are made, and if a different kind of perforation is employed to afford tearing-lines of greater weakness the difficulty of separating two sheets at a time is increased, and the user who wishes to have two superposed sheets must take them off one by one and then combine them, with the risk of not getting them to match at all points.

It was with a view to enabling the consumer to always with certainty detach two sheets together and at the same time enable him to fold one sheet on the other with accuracy that my present improvement was devised. To that end said improvement consists, first, in a web of paper provided at regular intervals with lines of extreme weakness and at intermediate points with lines of less weakness, whereby when the free end of the web is pulled a portion representing two sheets will be detached on a line of extreme weakness, which portion can then be folded

on the line of less weakness, so as to afford two sheets which accurately register with each other.

Referring to the accompanying drawings, Figure 1 represents a web weakened in accordance with my invention, and Fig. 2 a piece detached from the web and partially folded, and Fig. 3 a roll formed from my improved web.

Similar letters of reference in the several figures indicate the same parts.

The letter A indicates the web of paper, *b* the lines of extreme weakness, and *c* the lines of less weakness. The lines *b* are preferably formed by a series of angular or wavy cuts 1, which leave only narrow connecting-pieces 2, while the lines *c* are preferably formed of perforations 3, which may be of the shape shown or of any of the other forms shown in my patent, No. 405,412, of June 18, 1889, or simply round, as in the ordinary rolls of perforated paper. When the end of a web cut in this manner is drawn upon, a piece of the length of two ordinary sheets is separated on one of the lines *b*, and then can be readily folded on the intermediate line *c*, so as to afford two superposed and evenly-matched layers for use. Not only are the lines of weakness *b* produced by the series of angular or wavy cuts very susceptible to a pulling strain upon the end of the web, but they are conspicuous and enable the consumer to readily see just where the separation is about to take place. I do not, however, make any broad claim, *per se*, to such lines of weakness, as they form the subject-matter of a contemporaneous application filed by me.

Having thus described my invention, what I claim as new is—

A web of paper perforated at regular intervals with lines of extreme weakness and at intermediate points with lines of less weakness, substantially as and for the purpose specified.

OLIVER H. HICKS.

Witnesses:

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