Aug. 15, 1939. W. GIESE 2,169,415

TOILET SHEET

Filed May 25, 1937

Fig. 1.

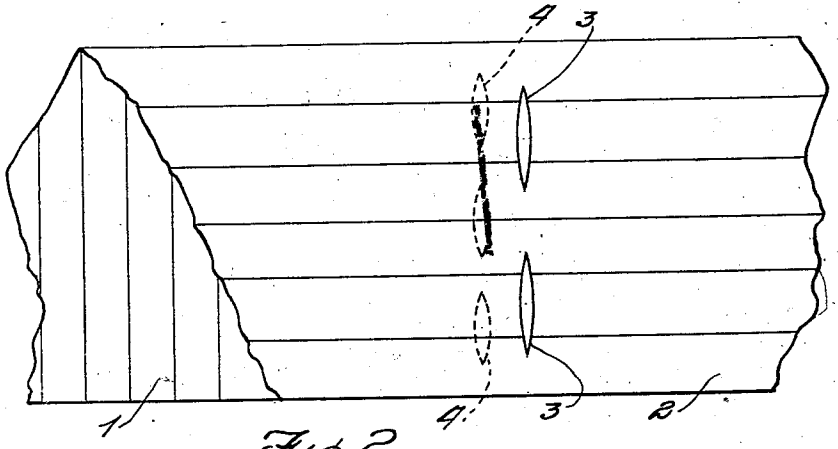


Fig. 2.

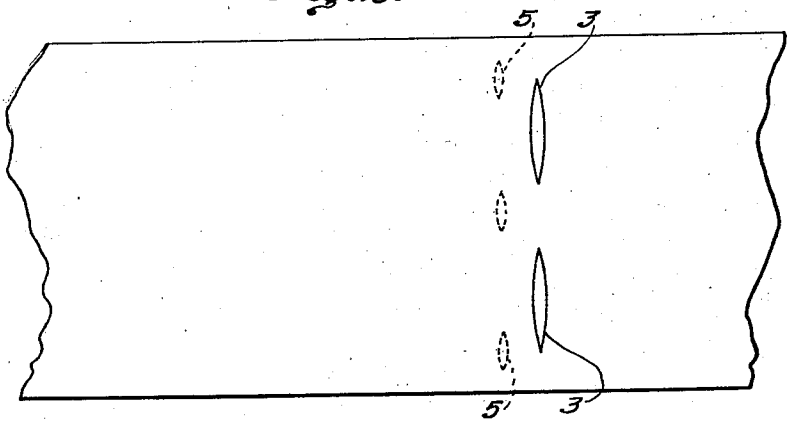
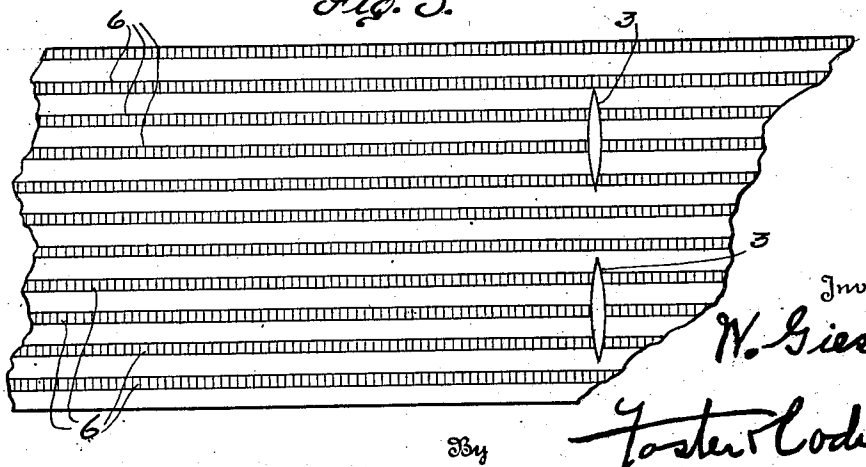


Fig. 3.



Inventor
W. Giese
By Foster & Codier.
Attorneys

Patented Aug. 15, 1939 2,169,415

UNITED STATES PATENT OFFICE

2,169,415

TOILET SHEET

Willi Giese, Nijmegen, Netherlands

Application May 25, 1937, Serial No. 144,746
In Great Britain May 7, 1937

1 Claim. (Cl. 154—46)

My invention provides an improved roll or packet of toilet paper characterised in that one or more layers of cellulose wadding are combined with ordinary smooth, or crepe, toilet paper.

The combination can be produced for example by means of an adhesive, embossing, a hedgehog roller and so on; or else during the usual perforating or slitting operation. When crepe toilet paper is employed, the union is wholly or partially produced as the result of the special character of the materials, since the more or less rough surfaces of the crepe paper and the wadding paper establishes a certain mutual adhesion of the materials.

It may be mentioned that cellulose wadding is a cellulose product which found progressively increasing employment during the Great War (1914–1918), and is manifestly different from the usual cotton wadding.

More than thirty years ago it was proposed to provide toilet paper with a layer of wadding gummed on to the edges of the paper. However, such toilet paper failed to possess the desired softness and flexibility.

In itself cellulose wadding is somewhat unsuitable for toilet paper, inasmuch as it is not sufficiently strong and as it is not easily perforated, and the individual sheets cannot be torn off at right angles.

The foregoing defects are completely remedied by my present invention, inasmuch as a toilet paper is obtained which is sufficiently strong for its purpose, can be easily and uniformly detached and the mutual adhesion of the component layers of which is satisfactory.

In making a roll or packet of my new toilet paper, the usual procedure may be adopted. For example, several layers of cellulose wadding are simultaneously unwound from a stock reel and covered with a layer of ordinary toilet paper.

When a toilet paper with a smooth surface is employed, it is advisable to apply an adhesive at uniform intervals, or to effect the union of the several layers by means of a hedgehog roller. Embossed impressions or crimping are also suitable for the purpose. When a crepe toilet paper is employed, the union is more or less completely effected (as already mentioned) by the rough character of the surfaces of the crepe paper and the cellulose wadding.

In both cases, the layers are perforated and slitted, at uniform intervals, in the usual manner, to enable the sectional sheets to be detached. The perforating or slitting also enables the mutual adhesion of the layers at the points in question.

Typical embodiments of my invention are illustrated in the accompanying drawing. Figures 1, 2 and 3 are plan views of the illustrated sheets.

Fig. 1 shows an ordinary toilet paper 1, whilst 2 represents a layer of cellulose wadding. 3, 3 are the usual perforations. 4 denotes the points at which the layer of ordinary toilet paper is attached to the layer of cellulose wadding by the aid of an adhesive.

According to Fig. 2, the layers of paper and cellulose wadding are connected together by slotted perforations 5, which can be produced, for example, by means of paper-fastening machines of known type.

According to Fig. 3 the connection between the layers is produced by means of embossed impressions 6.

I claim:

A toilet sheet consisting of a continuous web of thin creped tissue paper forming one layer of the sheet and a plurality of continuous webs of cellulose wadding forming other superimposed layers of the sheet, one of which layers of wadding contacts with the first layer throughout, said sheet constituting a wide ribbon, said sheet having the layers connected by a series of uniformly spaced lines of crimping extending longitudinally from one end of the sheet to the other, said lines of crimping being relatively close when compared to the width of the sheet, said sheet having at spaced intervals of its length a plurality of transverse slots each extending through and severing several of the lines of crimping and through the spaces between the severed lines.

WILLI GIESE.