(No Model.)

S. WHEELER.

WRAPPING OR TOILET PAPER ROLL.

No. 459,516. Patented Sept. 15, 1891.

Fig. 1.

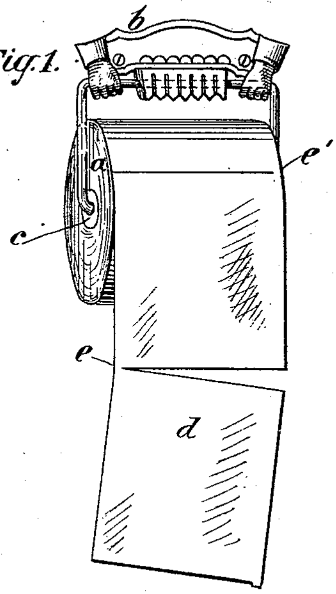


Fig. 2.

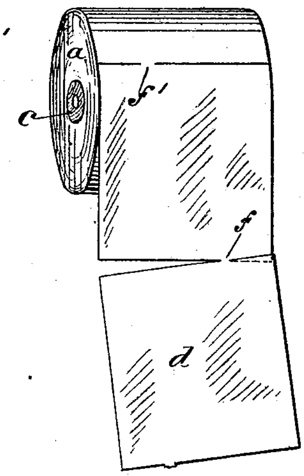


Fig. 3.

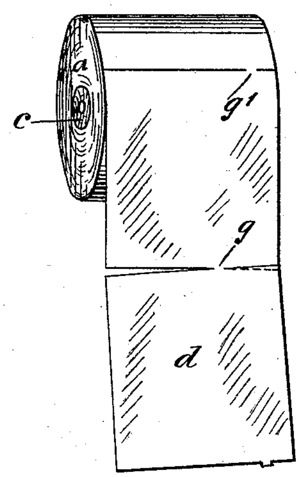


Fig. 4.

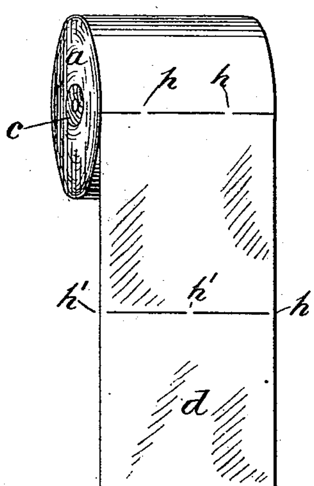


Fig. 5.

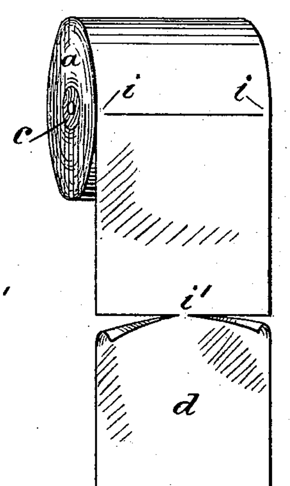
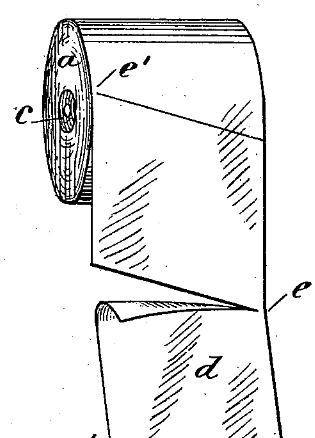


Fig. 6.



WITNESSES;

INVENTOR,

Seth Wheeler.

UNITED STATES PATENT OFFICE.

SETH WHEELER, OF ALBANY, NEW YORK.

WRAPPING OR TOILET PAPER ROLL.

SPECIFICATION forming part of Letters Patent No. 459,516, dated September 15, 1891.

Application filed June 10, 1891. Serial No. 395,758. (No model.)

To all whom it may concern:

Be it known that I, SETH WHEELER, of the city and county of Albany, and State of New York, have invented certain new and useful Improvements in Wrapping or Toilet Paper Rolls; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification.

My invention consists of a roll of paper for wrapping or toilet use so constructed that the points of attachment and severance between the sheets will be alternately out of parallel lines running through the whole body of the sheets, so that a pull upon the free end of the web will not be transmitted in a direct line through a series of sheets, but will be diverted by the spaces opposite the connecting points of the sheet pulled upon, thereby producing a transverse strain upon the next line of connecting points sufficient to break them.

In carrying out my invention the sheets of paper are only partially separated, having their points of attachment arranged in a novel manner, whereby each sheet will easily separate from the series as it is drawn from the roll, there being no litter occasioned, and any waste of paper is thereby prevented.

Since the advent of rolls of paper for the above-named uses many devices designed to prevent waste have been patented; but all effort in this direction has been apart from the roll of paper—namely, in the construction of holders for the rolls provided with means to prevent free unwinding of the roll and cause the sheets to separate singly at their connecting points. All these devices have been more or less complicated, liable to derangement, and expensive to both manufacturer and consumer, and consequently are little used now.

My improved roll may be used on the simplest holders.

Heretofore in the manufacture of rolls of paper the web of which is divided by lines of weakness into sheets it has been the practice to arrange the connecting points or bonds in parallel lines, or nearly so. Consequently, however slight the connection might be, it is evident, if the free end of the sheet be grasped at a point in line with the preceding connecting points, a long series of sheets may be drawn from the roll unless the free movement of the roll is prevented by friction or other means.

In the drawings, Figure 1 is a view of my improved roll suspended on the simplest form of fixture with a sheet of paper hanging therefrom, the points of attachment and severance being very near the margin of the sheets. Figs. 2 and 3 show my improved roll, the points of attachment and severance being nearer the line of center of the sheets than shown in Fig. 1. Figs. 4 and 5 are views of my improved roll, showing two points of attachment and severance which alternate with one point of attachment and severance in the same sheet. Fig. 6 is a view of my improved roll as applied to a different or oblique form of sheet.

a is my improved roll, being composed of a series of partially-connected sheets, and in Fig. 1 is applied to the simplest form of fixture.

b is the fixture, the arms of which pass through the core *c* of the roll.

d represents a sheet of paper ready to be detached from the roll.

In Fig. 1, *e* and *e'* represent the points of attachment and severance between two sheets and which alternate through the whole roll of sheets. By so arranging these points near the margin they may be of considerable width and still part under slight strain. If the points of attachment and severance are arranged as at *f* and *f'* in Fig. 2, they should be narrower to avoid any probability of tearing into the body of the sheets when separating them. The points *e* and *e'*, Fig. 1, also *f* and *f'*, Fig. 2, are so arranged that one will be on one side and the other on the other side of the central longitudinal line of the roll. I prefer to so arrange the points of attachment and severance, although they may be arranged in many other different positions with respect to each other, as shown at *g* and *g'*, Fig. 3, where they are both on one side of the central longitudinal line of the roll, also as seen at *h h* and *h'*, Fig. 4, where it is shown that two points of attachment and severance may alternate with one, and it is clear that more than two points may be arranged so as to alternately sever without departing

from the spirit of my invention. These points are partly on both sides and also upon the central longitudinal line of the roll.

In Fig. 5 the points of attachment and severance *i i* are shown on the margin of the sheets, where in Fig. 4 the points of attachment and severance *h h* are midway between the central longitudinal line of the roll and the margin of the sheet. Different forms of sheets may be wound in roll form, as shown in Fig. 6, having these alternating points of attachment and severance.

The principle of this invention, as shown applied in Figs. 1 and 5, is to so arrange the points of attachment and severance that those upon one edge of a sheet will be out of line with the points of severance uniting its opposite edge with the next sheet. By this method it will be seen that a pull upon the free end of the web will not be transmitted in a direct line through a series of sheets, but will be diverted by the spaces opposite the points of attachment and severance of the sheet pulled upon, producing a transverse strain upon the next line of connecting points sufficient to break them.

I claim—

1. A roll of paper for wrapping or toilet use so constructed that the points of attachment and severance between the sheets will be alternately out of parallel lines running through the whole body of the sheets, so that a pull upon the free end of the web will not be transmitted in a direct line through a series of sheets, but will be diverted by spaces opposite the connected points of the sheets, thereby producing a transverse strain upon the connected points sufficient to break them, substantially as described.

2. A roll of paper for wrapping or toilet use so constructed that the points of attachment and severance between the sheets will be alternately out of parallel lines running through the whole body of the sheets, such points of attachment and severance being upon both sides of the central longitudinal line of the web or series of sheets, so that a pull upon the free end of the web will not be transmitted in a direct line through a series of sheets, but will be diverted by the spaces opposite the connecting points of the sheet pulled upon, thereby producing a transverse strain upon the next line of connecting points sufficient to break them, substantially as described.

SETH WHEELER.

Witnesses:
E. WHEELER,
WM. A. WHEELER.