

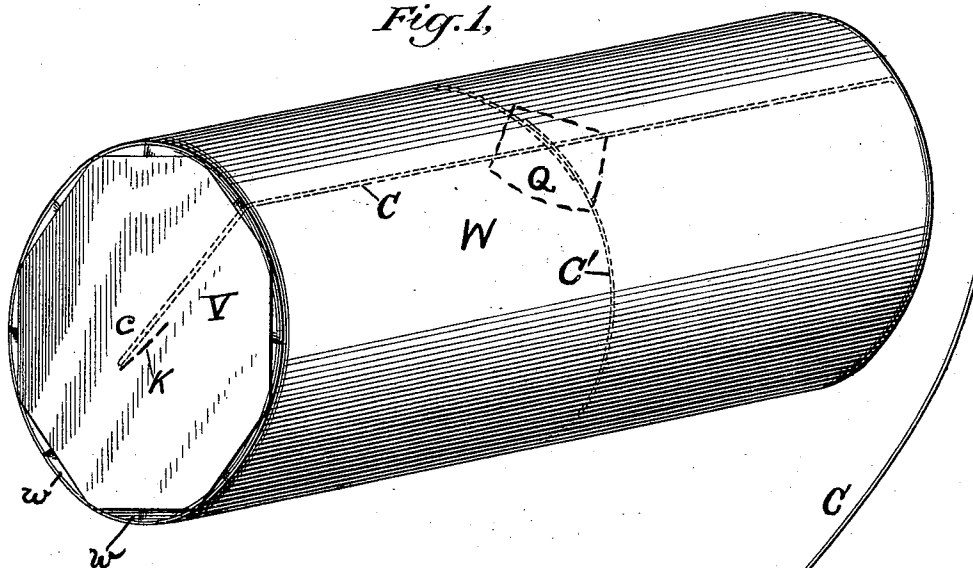
(No Model.)

C. L. DUVAL.  
DEVICE FOR OPENING WRAPPERS.

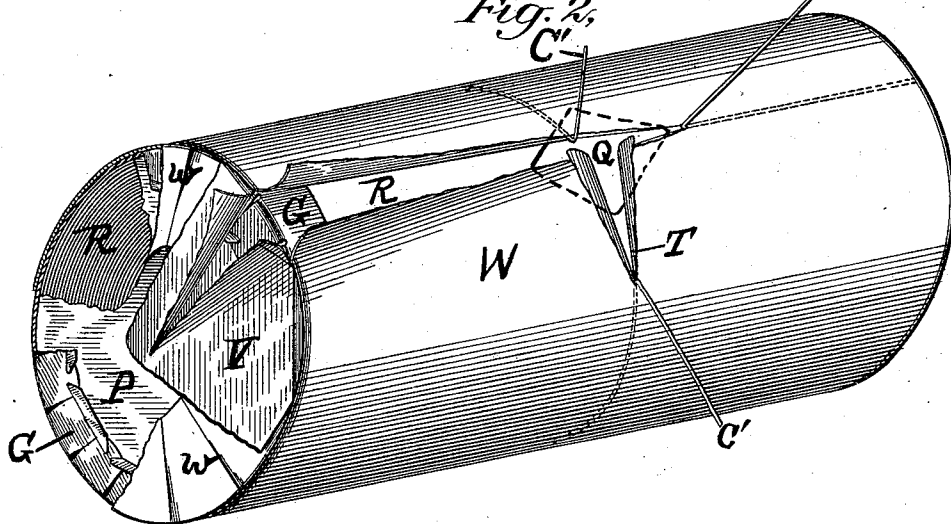
No. 568,340.

Patented Sept. 29, 1896.

*Fig. 1.*



*Fig. 2.*



*Witnesses:-*

*W. H. Raybrook*

*Geo. H. Comeborn.*

*Inventor:-*

*Charles Louis Duval*

*by Arnold R. Miller*  
*Atty.*

# UNITED STATES PATENT OFFICE.

CHARLES LOUIS DUVAL, OF NEW YORK, N. Y.

## DEVICE FOR OPENING WRAPPERS.

SPECIFICATION forming part of Letters Patent No. 568,340, dated September 29, 1896.

Application filed February 15, 1895. Serial No. 538,517. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES LOUIS DUVAL, of New York city, State of New York, have invented a new and useful Improvement in  
5 Devices for Opening Wrappers, of which the following is a description, referring to the accompanying drawings, which form a part of this specification.

My invention is particularly applicable to  
10 the wrappers used for covering the rolls of paper as they are sent from the manufacturer to the daily papers to be printed. In stripping off the wrapper from these rolls it is extremely difficult not to cut or tear the outer  
15 layers of the roll, and the purpose of my invention is to enable the wrapper to be readily stripped off without the possibility of injuring the roll.

Briefly, the invention consists of cords or  
20 wires laid within the wrapper, between the wrapper and the roll, and lying in such a position that when the end or ends of the cord are loosened the cord or cords may be drawn  
25 upon, each tearing its way through the paper and opening the wrapper, so that it may be readily removed.

The invention is of so simple a nature that it will be readily understood by reference to the accompanying drawings, wherein—

30 Figure 1 is a view showing a roll of paper inclosed in its wrapper, the position of my cords being indicated in dotted lines. Fig. 2 is a view showing the operation of the cords in bearing upon the wrapper, part of the figure being also broken away to show the construction of the ends or heads of the wrapper.

Throughout the drawings like letters of reference indicate like parts.

The cylindrical portion of the wrapper is  
10 indicated by W, the roll, where it appears through the torn wrapper in Fig. 2, being indicated by R, the protective metallic guards for the edges of the roll being shown at G, and the head of the wrapper being shown at  
15 V. The protective guard G is the subject of Patent No. 542,728, granted to me July 16, 1895. This, therefore, being already known to the art need not be herein described. It extends around the edge of the roll, as indicated at G in Fig. 2, and protects the edge  
20 from abrasion and tearing. In applying a wrapper to a roll in accordance with my in-

vention a piece or disk of paper P is placed  
upon each end of the roll, preferably under  
the protective guard G, as clearly seen in Fig. 55  
2. The guard is then applied. A cord C is  
then placed lengthwise along the roll and of  
such length that it may extend the length of  
the roll and its ends be turned into the center  
of each head, as in Fig. 1. This is laid 60  
upon the roll in the position shown in Fig. 1  
and the ends c pasted or glued to the center  
of the paper disk P at each end of the roll.  
A second cord C', of length sufficient to extend  
around the roll and overlap somewhat, 65  
is then laid around the roll and the overlapped  
ends pasted or glued to a small piece of thick  
paper Q, which is placed under the overlapped  
ends of the cord, as clearly seen in the figures.  
The wrapper W is then applied to the roll and  
the ends neatly folded down, as at w, after  
which a paper disk or head V is pasted onto  
each end of the wrapper, as shown. It will  
now be clear that a complete wrapper, substantially  
similar to that now in use, is formed 75  
about the roll; but within this wrapper lie  
the cords C C'. When a wrapper is to be removed,  
it is only necessary to insert a penknife at the  
center of one head, as at K, Fig. 1, and thereby  
free the end of the cord C. 80  
This may safely be done without danger of  
cutting into the roll beneath, because the cord  
C appears through the paper, forming a slight  
ridge at the center of the head. The free end  
of the cord is then taken firmly in the hand 85  
and drawn back, ripping open the wrapper  
in the manner seen in Fig. 2. When the cord  
C is torn from beneath the ends of the overlapped  
cord C', the ends of the latter cord C' 90  
may be taken in a similar manner and drawn  
back, tearing open the wrapper, as at T.  
When both these cords have torn the wrapper  
from end to end, it may be readily stripped  
off, leaving the roll entirely bare save for the  
protective guards G and such portions of the 95  
end disks or paper heads as may remain.  
Upon the removal of the protective guards G  
the roll is ready for use and may be mounted  
and unrolled, as required, without waste. 100  
In the case of such papers as the *New York Herald*  
and *New York World* a waste of some  
thirty thousand dollars a year occurs solely  
from damage to the rolls of paper in transit  
and in opening. I have found that by the

use of my device, in combination with my protective guard, almost all this waste is saved, and such waste as occurs is only due to accident and is not then a regular incident in the transmission and opening of the rolls.

I am of course aware that devices remotely resembling my cords have been employed for opening other packages, and that one such device has been extensively used in connection with sardine-cans and other metallic packages; but these are all clearly distinguished from my invention both by the simplicity of my device and by its mode of attachment and operation.

Having now set forth one preferred form of my invention, I claim and desire to secure by these Letters Patent, together with all such modifications as may be made by mere skill in the art without departing from the principles involved and with only such limitations as are expressed or by law implied in view of the related arts, the following:

1. A package comprising an article inclosed by a wrapper, having two opening-cords between the said article and the said wrapper, crossing each other, one of the said cords being arranged beneath the end, or the lapping ends, of the other, substantially as set forth.

2. In combination with a wrapper W, the longitudinal opening-cord C with one or both of its ends lying beneath the heads V of the said wrapper, and the transverse or circumferential cord C' having its ends lapped over the said cord C and pasted or otherwise secured to the paper or other material Q, substantially as set forth.

In testimony whereof I have hereunto set my hand, at the city of New York, this 14th day of February, A. D. 1895.

CHARLES LOUIS DUVAL.

Witnesses:

J. W. BEALL,  
HAROLD BINNEY.