G. B. STREIT.

PAPER TUBE.

APPLICATION FILED NOV. 25, 1912.

1,067,493. Patented July 15, 1913.

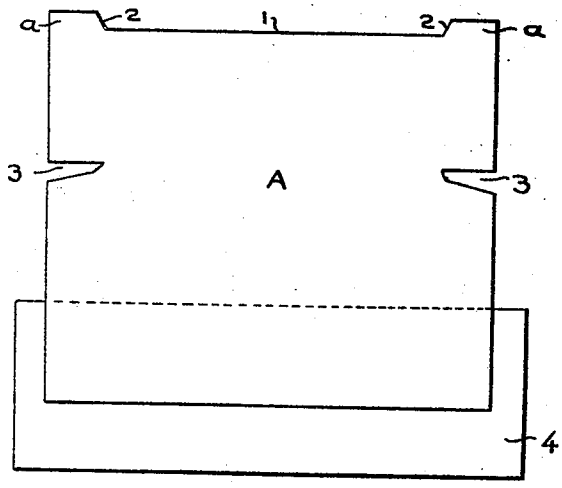


Fig. 1

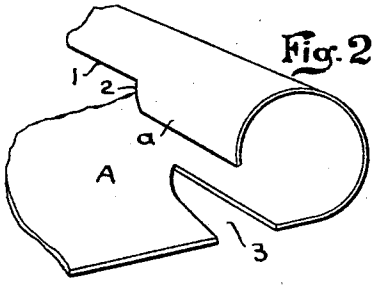


Fig. 2

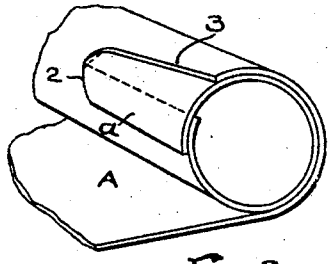


Fig. 3

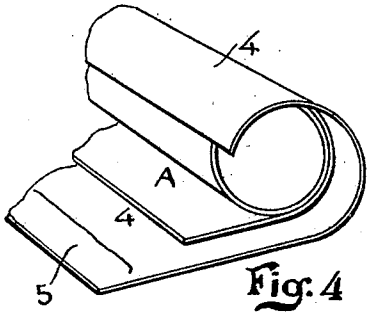


Fig. 4

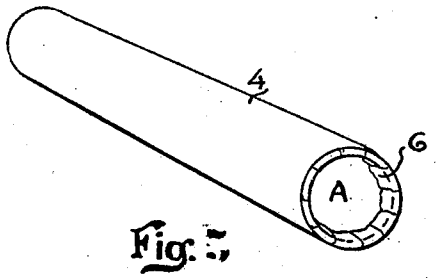


Fig. 5

WITNESSES:

Robert N. VanDerveer

Virginia C. Spratt.

INVENTOR

George B. Streit

BY

Ralzemond A. Parker

ATTORNEY

UNITED STATES PATENT OFFICE.

GEORGE B. STREIT, OF DETROIT, MICHIGAN.

PAPER TUBE.

1,067,493. Specification of Letters Patent. Patented July 15, 1913.

Application filed November 25, 1912. Serial No. 733,262.

To all whom it may concern:

Be it known that I, GEORGE B. STREIT, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Paper Tubes, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to paper tubes and has for its object a paper tube that is formed of a blank that is prepared to be easily formed up by the user.

In the drawings:—Figure 1, is a view of the blank. Fig. 2, is a perspective of one end of the blank as it is being rolled up. Fig. 3, is a similar perspective showing a blank rolled up to the point where the diameter of the tube is fixed against reduction. Fig. 4, is a similar perspective showing the rolling further advanced. Fig. 5, is a perspective of the completed tube.

A, is the blank which has a pair of projections *a* on one end at each side. These leave an indented edge portion 1 at this end and shoulders 2 on each side of the blank. Distant a space equal to the circumference of the tube that is desired, are cut notches 3. At the opposite end of the blank is attached a piece of wrapping paper 4 of sufficient width to go at least once around a completed tube and of sufficient length to project beyond each end of the tube. These blanks can be shipped in sheet form and hence occupy a minimum amount of space.

When it is desired to use a tube, the user lays the blank out flat and starts to roll it from the end with the projections as shown in Fig. 2. As the projections *a* come adjacent the notches 3 they drop thereinto and the shoulders 2 engage with the notches 3 and thereby fix the diameter of the tube so that it cannot be reduced, while the fastening means at the opposite end of the tubes fixes the diameter so that it cannot be increased.

Fig. 3, shows the fixing of the diameter so that reduction is not possible. Fig. 4 shows the sheet of paper 4 rolling onto the tube. This paper may be gummed as at 5 and when this is moistened, the completed tube will be fastened so that the diameter cannot increase. The ends of the paper may be tucked in as at 6 in Fig. 5, so as to hold any article contained in the tube from slipping out.

Of course the gummed strip 5 may be omitted and paste or mucilage applied with a brush, or clasps or other fastening devices might be used, or, for that matter, the paper sheet 4 may be entirely omitted and some other fastening means provided directly on the blank.

What I claim is:—

A paper tube comprising a blank having projections at the extreme sides of one end of the blank and notches cut in toward the center of the blank at each side, the said notches being spaced from the projections a distance equal to the size of the circumference desired in the finished tube and means on the end of the blank opposite that end bearing the projections for fastening the blank to prevent unrolling when the said blank has been rolled up so as to bring the projections through the notches to fix the diameter of the tube against reduction, whereby the projections slip without guidance into the notches, substantially as described.

In testimony whereof, I sign this specification in the presence of two witnesses.

GEORGE B. STREIT.

Witnesses:

STUART C. BARNES,

VIRGINIA C. SPRATT.