C. H. QUINLAN.

MAILING TUBE.

APPLICATION FILED APR. 24, 1914.

1,146,206. Patented July 13, 1915.

Fig. 1

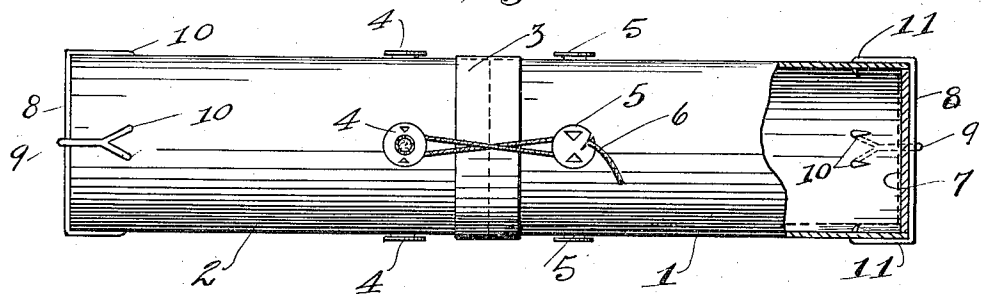


Fig. 2

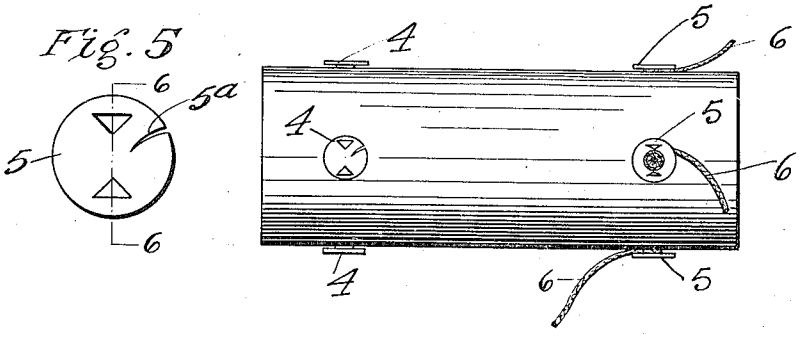


Fig. 5

Fig. 6



Fig. 3

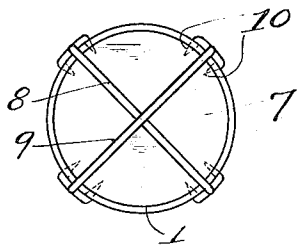
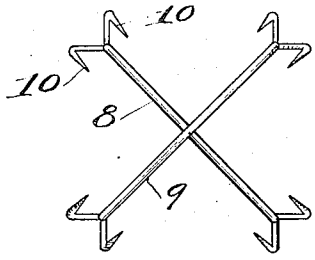


Fig. 4



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MAILING-TUBE.

1,146,206. Specification of Letters Patent. Patented July 13, 1915.

Application filed April 24, 1914. Serial No. 834,141.

To all whom it may concern:

Be it known that I, CHARLES H. QUINLAN, a citizen of the United States of America, residing at Amsterdam, in the county of Montgomery and State of New York, have invented certain new and useful Improvements in Mailing-Tubes, of which the following is a specification.

The present invention relates to improvements in mailing tubes, and is designed to provide a device of this type which is adapted as a receptacle in which may be carried music rolls, manuscripts, etc.

The primary object of the invention is the provision of a tube of this character preferably made of cardboard which will be comparatively cheap in first cost, light in weight, but strong and durable, and well adapted for performing the functions for which it is intended.

The invention consists in the novel combination and arrangements of parts whereby separate sections of the tube are joined together and held securely in position, and in certain other novel combinations and arrangements of closures for the ends of the tube, as will all be more clearly pointed out in the following specification and set forth in the appended claim.

In the accompanying drawings I have illustrated one complete example of the physical embodiment of my invention constructed according to the best mode I have so far devised for the practical application of the principles of the invention.

Figure 1 is a side elevation of a mailing tube constructed according to my invention, one end of the tube being broken away for convenience in illustration. Fig. 2 is a view of a single section of a mailing tube detached. Fig. 3 is an end view of Fig. 1. Fig. 4 is a view enlarged showing the position of the crossed wires which are used to fasten the closure in the end of the tube, or when the closure is omitted these crossed wires themselves perform the function of the closure. Fig. 5 is a view of one of the fastening disks. Fig. 6 is a cross section on line 6—6 of Fig. 5.

In the preferred embodiment of the invention as shown in Fig. 1, I employ a suitable number of tube sections, as 1 and 2. These sections are all duplicates, and it will be understood that as many sections as desired may be employed, and the intermediate sections will all be joined together at their respective ends as shown in Fig. 1, where a sealing band 3 is illustrated. This band 3 seals the joint between the two sections and is preferably pasted to one of the sections before the parts are put together, then after the sections are in position the free half of the band which may have been moistened previously is then pasted and made to adhere to the other sections of the tube. In some cases the band end of the section may be the end of the tube, and in this manner a wrapper is provided which may be turned in at the open end of the tube, and folded over the contents of the tube. Thus, for instance, a cardboard drawing inclosed within the tube may have this band folded over the tube to protect the edges. It will be understood that the band although somewhat flexible, is yet sufficiently rigid to form a secure joint between the sections as shown in Fig. 1.

For firmly holding the sections together, I employ complementary fasteners near the adjoining ends of the sections, and in the drawings I have illustrated round disks or buttons 4 and 5 secured to the respective tube sections, and these fastening devices are connected by means of a fastening cord 6 which is permanently secured to one device as 4, and then passed around the other device as 5.

The disk is preferably of metal, and is provided with tongues 5′ struck up from the material of the disk, and these tongues which are triangular in shape and have a pointed end, are passed through the body of the tube sections and are clamped at the inner side or wall of the tubes so that the disks are firmly secured to the tubes. The disk 5 is preferably formed with a kerf or slit 5^a which extends from the perimeter of the disk in toward the center, and this kerf forms a locking or retaining device for the end of the cord 6 as it has been wound backward and forward about the disks 4 and 5, as clearly shown in Fig. 1. I have illustrated the sectional tube as equipped with four of these fastening devices and cords, but it will be understood that a greater or less number may be utilized as circumstances warrant.

For closing the open ends of the tube a round disk 7 may be employed when it is desired to seal the end of the tube. After the article to be carried is placed within the tube, this disk or closure 7 is placed in the end of the tube against the end of the article, and then a crossed wire locking device

is employed. This locking device comprises, as shown in the drawings, a pair of crossed wires as 8 and 9, each of which is formed at its ends with teeth or prongs 10—10. The wires are of flexible material, so that when in use the prongs may be pushed or passed through the wall of the tube near its end and then the wire bent and stretched across the diameter of the tube. Another bend is now formed in the wire, and the other end of the wire is bent over and the other prongs are passed through the wall of the tube and locked diametrically opposite the first prongs. The second wire is now attached in the same manner between its prongs to the tube, and the wires are thus crossed as in Figs. 3 and 4. In this manner the crossed wires securely seal and lock the contents of the tube, but it will be understood that the wires may be displaced with facility when necessary or required so that access may be had to the interior of the package.

In Fig. 1, it will be seen that each crossed wire has an angularly bent portion 11—11 so that the wire closure is firmly anchored or secured at the ends of the tube, and the prongs 10 are bent inwardly toward the body of the wire so that displacement of the wire cannot occur without forcibly prying the prongs from the wall of the tube. The portions 11 of the wire parallel with the plane of the tube give rigidity and security to the locking wires, and when it is desired to withdraw the prongs from the tube this may be accomplished by prying the bent portion 11 away from the tube, and in this manner the opening of the tube may be facilitated.

From the above description taken in connection with my drawings it will be understood that I have provided a device which fulfils the conditions set forth as the purpose of my invention.

The sectional feature of the mailing tube adapts the mailing tube to almost indefinite lengths so that it is capable of carrying articles of varying sizes or lengths. The sections themselves are securely jointed together by the sealing band and fastening means, and the perforated pronged ends of the wire closures form rigid braces and secure closures for the ends of the tube.

If desired, the sealing band at the center of the tube may be dispensed with, and at the joint a reinforcing collar, either of the same material as the tube or otherwise. In using second class mail matter in the tube, it will be desirable that the sealing band be not pasted to the tube sections to seal the joint, thus providing access to the interior of the tube for the post office inspector. It will be noted in this case that instead of opening the ends of the tube, inspection may be had by untying and loosening the cord, and then the sections may be separated and the contents of the tube inspected. For first-class matter, of course, the sealing band will be pasted as before described. By removing the contents of the tube after the sections have been separated, all danger of injury to the contents by tearing or soiling in handling, is eliminated, and the mailing tube can be opened with facility and the contents withdrawn without opening the end closures.

Having thus fully described my invention, what I claim and desire to secure by Letters Patent, is:—

The combination with the sections of a mailing tube and a sealing band over the adjoining ends thereof, of a disk closing each outer section end, a pair of flexible crossed wires having bifurcated bent portions parallel with the tube formed with prongs adapted to enter the material of the tube, and fastening devices near the ends of the adjoining sections with fastening cords connecting said devices.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES H. QUINLAN.

Witnesses:
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