May 19, 1925. 1,538,249

W. A. LORENZ

PAPER HINGE

Filed April 17, 1924

Fig. 1.

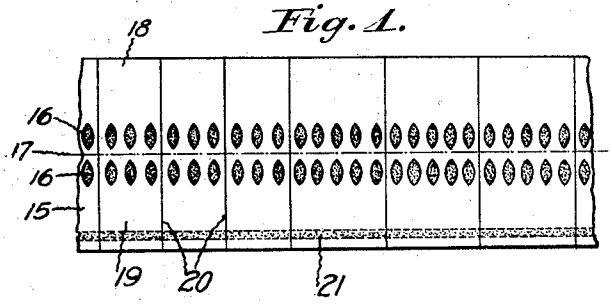


Fig. 2.

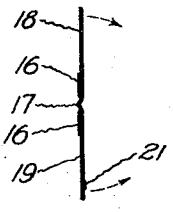


Fig. 3. Fig. 4. Fig. 5. Fig. 6. Fig. 7.

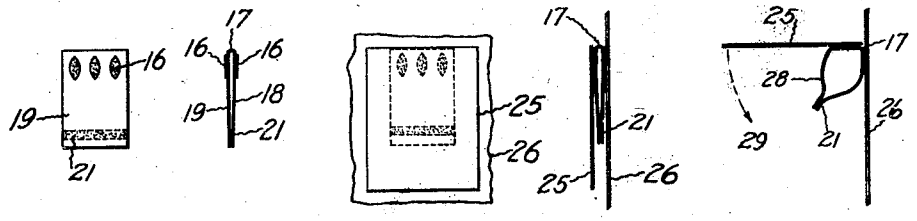


Fig. 8. Fig. 9. Fig. 10. Fig. 11. Fig. 12.

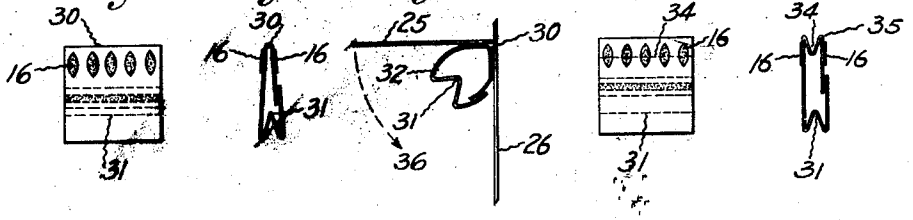
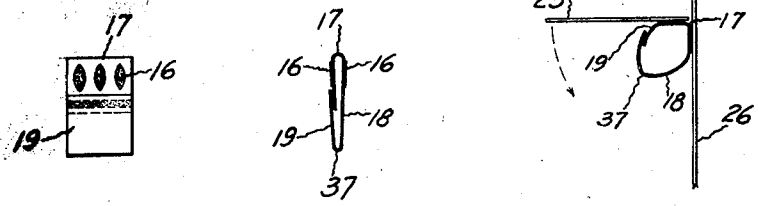


Fig. 13. Fig. 14. Fig. 15.



Inventor

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Patented May 19, 1925. 1,538,249

UNITED STATES PATENT OFFICE.

WILLIAM A. LORENZ, OF HARTFORD, CONNECTICUT.

PAPER HINGE.

Application filed April 17, 1924. Serial No. 707,309.

To all whom it may concern:

Be it known that I, WILLIAM A. LORENZ, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented new and useful Improvements in Paper Hinges, of which the following is a specification.

This invention consists of a paper sticker or hinge, for affixing postage stamps or other papers to a backing. The postage stamp hinge now in use consists generally of a piece of paper which is gummed on one side; this is folded over with the gummed side out; the gum is wetted and the hinge is attached by one end to the stamp and by the other end to the backing. It is difficult to use this hinge without getting gum on the fingers. When this hinge is used and the stamp is lifted, the stamp will not return to its original flat position against the backing very readily; the stamp can be easily blown over with the hinge as an axis, and in that position the stamp can be damaged. The old form of hinge does not hold the stamp well, for it can be twisted out of position sidewise.

By my improvement I provide a paper hinge which can be seized by the uncoated flaps beyond the gummed portion of the hinge. I make the hinge in the form of a tube consisting of a folded-over piece of paper, the two outer ends or flaps being gummed together near their outer edges. When attached to a stamp and a backing, and when the stamp is swung up, in order to look beneath it, and when released the tube hinge springs back and returns the stamp against or close to the backing. The tube hinge also holds the stamp squarely, and prevents its being turned to one side.

These improvements are shown in the drawings in which Figure 1 shows a strip of paper for making tube hinges. Fig. 2 is an edge view thereof. Figs. 3 and 4 show the detached completed hinge. Figs. 5 and 6 show the hinge of Figs. 3 and 4, attached to a stamp and a backing. Fig. 7 shows the stamp swung up, and thus expanding the hinge. Figs. 8 and 9 show a modified form of hinge, and Fig. 10 shows its application to a swung up stamp. Figs. 11 and 12 show another modification of a hinge, and Figs. 13 and 14 still another modfication. Fig. 15 shows the hinge of Figs. 13 and 14 attached to a stamp and backing, the stamp being swung up.

In the drawings a strip of paper 15, having gummed surfaces 16—16 is shown. A dot and dash line 17 indicates where the hinge is folded over. The hinge is provided with uncoated flaps 18 and 19. Lines 20—20 indicate where the strip of paper may be cut into hinge widths. The method of folding over at the point 17 is indicated in Fig. 2, the two flaps 18 and 19 moving in the direction of the arows.

A thin line of adhesive 21 is applied to the flap 19. Then when the two flaps 18 and 19 are folded together, they will adhere to each other as shown in Figs. 3 and 4.

The hinge of Figs. 3 and 4 is shown attached to a stamp 25 and a backing 26 in Figs. 5 and 6. In Fig. 6 the parts are shown partly separated in order to show their construction. Fig. 7 shows the stamp 25, swung upwardly at 90 degrees from the backing 26. The hinge will then open up as at 28, thus enabling the user to examine the underside of the stamp 25. When the stamp 25 is released it will spring downwardly in the direction of arrow 29, and assume the position shown in Fig. 6.

A modification of this hinge is shown in Figs. 8 and 9 in which a tube is formed, having a folded over hinge portion 30 and a bellows fold 31. When this hinge is applied to a stamp 25 and a backing 26, and is swung up as in Fig. 10, the hinge will assume the form shown at 32, thus expanding the bellows fold 31; when the stamp is released, it will spring downwardly in the direction of the arrow 36.

A further modification is shown in Figs. 11 and 12, which is similar to Figs. 8 and 9, except that the bellows 31 is shown at one edge of the hinge, and another bellows 34 is shown at the other edge.

Another modification is shown in Figs. 13 and 14, showing the hinge in the form of a tube; but instead of the flaps 18 and 19 being pasted together the tube is made with a fold 37 at that edge. When the stamp 25 is swung up, the tube will expand as shown in Fig. 15, and upon releasing the stamp it will spring downwardly.

Various modifications may be incorporated in the construction of this device without departing from the spirit of the inven-

tion. For example; the tubes as shown in the various figures may be made in a long strip and sold to the user in that fashion, who may cut off his own hinges to the length he wishes.

The tube is shown collapsed in Figs. 4 and 6; the hinge part 17, is drawn open so as to illustrate the fold on line 17, Fig. 1; in actual practice the fold 17 in Fig. 4 will be a sharp fold, as shown in Fig. 2.

A thin transparent paper such as is used for stamp hinges, may be used; or a paper not transparent may be used. In either case the paper has some elasticity; and a tube that is produced as shown, will be elastic or resilient.

I claim as my invention:

1. A paper hinge made in the form of a tube having adhesive applied to its surface at both sides near one edge thereof.

2. A paper hinge made in the form of a short tube open at both ends and having adhesive applied to a portion of its surface.

3. A hinge made of elastic paper and in the form of a short flat tube, open at both ends and having adhesive applied to a portion of its surface near one edge thereof.

4. A paper hinge made in the form of a tube and having adhesive applied to its surface on both outer sides near one edge of the tube, and having uncoated surfaces beyond the adhesive on both sides of the tube.

5. A paper hinge made in the form of a tube and having adhesive applied to both outer sides of the tube near one edge thereof, and having the other edge closed by an adhesive.

6. A paper hinge made in the form of a short tube open at both ends, and having adhesive applied to both sides of the tube near one edge thereof, and having two uncoated portions extending beyond the adhesive surfaces, the tube being completed by a line of adhesive between said two uncoated portions and placed near the outer edges thereof.

7. A paper hinge made in the form of a short tube open at both ends, and having adhesive applied to both outer sides of the tube near one edge thereof, and having the other edge closed by an adhesive placed between the two sides of the tube, the tube being made of elastic paper.

8. A paper hinge made in the form of a short bellows tube open at both ends, and having adhesive applied to both sides of the tube near one edge thereof, and having uncoated surfaces beyond the adhesive on both sides of the tube.

9. A paper hinge made from a flexible strip of paper folded flatwise upon itself and having adhesive between the abutting portions of said folds adjacent their free ends, said hinge being normally flat, said hinge being adapted to have applied near the folded edge thereof an adhesive.

10. A tubular paper tube adapted for making paper hinges, comprising a strip of paper folded over at its longitudinal center, and having adhesive applied between the two folded-over edges of the strip, thus completing the tube, and having adhesive applied to both sides near one edge of the tube.

11. A paper hinge made from a flexible strip of paper folded flatwise upon itself and having adhesive between the abutting portions of said folds adjacent their free ends, said hinge being normally flat, and means for securing the hinge to a sheet.

Signed at Hartford, Conn., this 1st day of April, 1924.

WILLIAM A. LORENZ.

Witnesses:
LILLIAN M. TAYLOR,
WM. A. ZEISER.