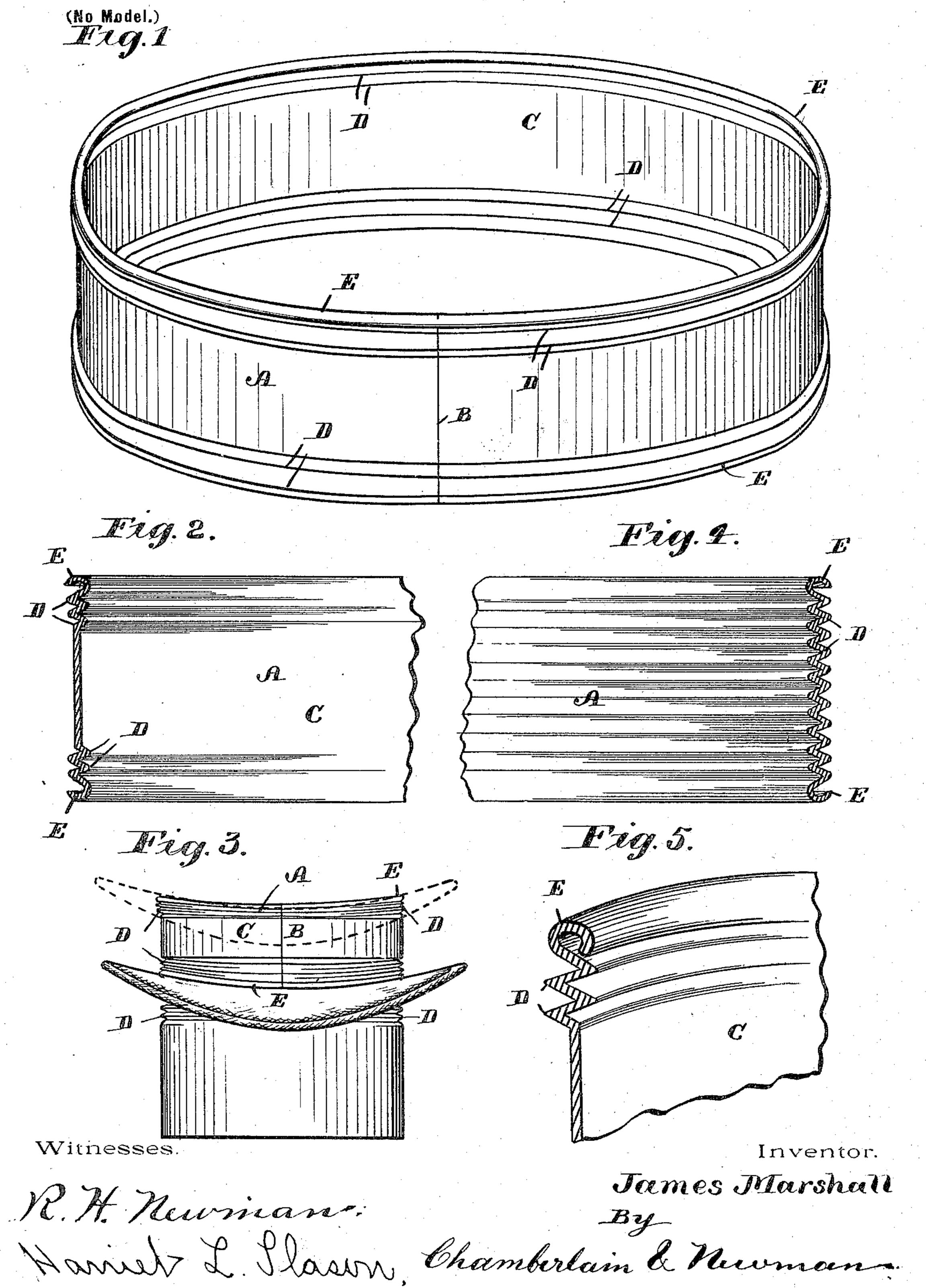
## J. MARSHALL. HAT PACKING RING.

(Application filed Sept. 16, 1897.)



## United States Patent Office.

JAMES MARSHALL, OF FALL RIVER, MASSACHUSETTS.

## HAT-PACKING RING.

SPECIFICATION forming part of Letters Patent No. 641,026, dated January 9, 1900.

Application filed September 16, 1897. Serial No. 651,878. (No model.)

To all whom it may concern:

Be it known that I, James Marshall, a citizen of the United States, and a resident of Fall River, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Hat-Packing Rings, of which the following is a specification.

This invention relates to new and useful improvements in hat-packing rings and stays, such as are used to pack hats for shipment.

It is the object of my invention to generally improve upon rings of the above class, and particularly to provide a novel form of self-conforming and non-chafing ring which will retain hats of various shapes and sizes snugly in place, and thus prevent them from becoming rubbed or defaced during shipment.

Upon the accompanying drawings, forming a part of this specification, the same characters of reference denote like or corresponding parts upon the several figures, and of which—

Figure 1 shows a perspective view of a pasteboard hat-packing ring embodying my invention. Fig. 2 shows a detail cross-section of
the construction shown in Fig. 1. Fig. 3 shows
a view of a ring and stay, together with a hat
upon which they are applied. Fig. 4 is a detail cross-section of a modified construction,
the same showing a ring which is entirely
corrugated. Fig. 5 is an enlarged detail perspective view of a modification, showing a
closed bead and corrugations possessing sharp
angles instead of curved corners, as in the
other figures.

As is customary in the art to which my invention belongs, I preferably manufacture it of pasteboard or strawboard and by means of suitable automatic machinery specially designed for the purpose, which takes the stock from a roll of the desired width, operates upon the same, and finally severs said strip into desired lengths, the ends of which are later united by glue or eyelets, thus forming a complete ring. If preferred, however, said strips can be cut into the proper lengths prior to being operated upon.

Referring to the letters of reference marked upon the drawings, A represents the ring as a whole, and B the joint or union, which can be formed in any preferred manner.

C represents the central and smooth portion of my ring, which part in practice constitutes about two-thirds of its entire width. 55 On each side of said central portion I form a series of annular corrugations D, which may be of any desired size, shape, or number. In practice, however, I find that two or three upon each edge are quite sufficient for my pur- 60 pose. Adjoining the outer edge of said corrugations I provide a closed or curled bead E, as shown in Figs. 2 and 4 of the drawings. This bead is preferably turned outward; but if entirely closed, as in Fig. 5, it can be dis- 65 posed inwardly with equally as good results. The purpose of these annular corrugations is to afford a vertical yield to the ring or any parts thereof and also to engage the side of the hat-crown and retain the same against 70 lateral play. It will therefore be obvious that owing to the ready adaptability of my ring or any part thereof to yield vertically with pressure brought against the top and bottom of the beads it will conform to the shape of a 75 brim of a hat upon which it is placed, substantially as shown in Fig. 3 of the drawings.

I am aware that several rings have been patented which are intended to conform to the shape of a hat-brim upon which they are 80 placed; but none of these rings, so far as I know, have been a commercial success, principally for the reason that they lacked the accordion or yielding qualities necessary for a perfect ring and had to be placed upon the 85 hat in a certain position in order to yield to its scope. Further, said rings could not be produced by automatic machinery and were consequently expensive and otherwise objectionable. My construction differs from these 90 patents and is a great improvement thereon in that it can be placed upon the hat in any position, its accordion qualities making it compressible to conform to the scope of the hat and to any little inaccuracies thereof.

In this, my invention, I do not wish to confine myself to the particular construction shown in the drawings, since this can be varied in several important particulars without departing from the principles thereof. In 100 Fig. 4 I have shown a slight modification of a ring the surface of which is entirely corrugated. In the construction of stays I find it unnecessary to corrugate but one edge, and

accordingly I have shown a stay of the construction in the drawings. These corrugations can be made at sharp angles or with long curves, consisting of one or more, as desired.

Having thus described my invention, what I claim, and desire to secure by Letters Pat-

ent, is—

1. A hat-packing ring and stay provided with a series of annular corrugations, whereby it is permitted to yield vertically and conform to the scope of a hat-brim when placed thereon.

2. A self-conforming hat-packing ring or stay provided with a series of annular corrugations, whereby it will adapt itself to the shape of a hat-brim when placed thereon, and a curl or bead upon its upper and lower edges.

3. A self-conforming hat-packing ring and stay consisting of a smooth portion, a series of corrugations upon one or both edges there-of adapted to conform to the shape of a hat-brim when placed thereon and an engaging surface upon the outer edges of said corrugation.

4. A hat-packing ring and stay consisting

of a smooth unbroken portion, one or more series of corrugations adjoining said portion and whereby any part of said ring is permitted to yield and conform to the shape of a hatbrim when placed thereon.

5. A self-conforming hat-packing ring and stay formed of pasteboard or other material, and provided with a series of corrugations whereby the upper and lower edges being 35 normally parallel, are independently yield-

able in a vertical plane.

6. A hat-packing ring and stay formed of pasteboard or other material, provided with a series of circular corrugations whereby its 40 top and bottom edges being normally horizontal and straight and parallel with each other, are adapted to scope and conform to the shape of a hat-brim when placed on a hat.

Signed at Fall River, in the county of Bris- 45 tol and State of Massachusetts, this 10th day

of September, A. D. 1897.

JAMES MARSHALL.

Witnesses:

EDWARD H. ANTHONY, J. T. BARTON.