No. 801,423. PATENTED OCT. 10, 1905.

E. K. WARREN & J. H. HOLDEN.

GARMENT STAY.

APPLICATION FILED DEC. 8, 1902.

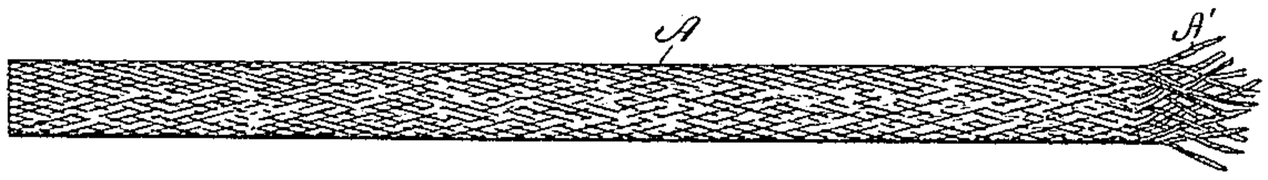

Fig. 1

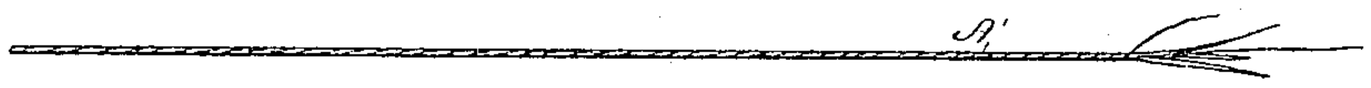

Fig. 2

Fig. 3

Witnesses:
Ethel A. Teller
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UNITED STATES PATENT OFFICE.

EDWARD K. WARREN AND JONAS H. HOLDEN, OF THREEOAKS, MICHIGAN, ASSIGNORS TO THE WARREN FEATHERBONE COMPANY, OF THREEOAKS, MICHIGAN.

GARMENT-STAY.

No. 801,423. Specification of Letters Patent. Patented Oct. 10, 1905.

Application filed December 8, 1902. Serial No. 134,345.

To all whom it may concern:

Be it known that we, EDWARD K. WARREN and JONAS H. HOLDEN, citizens of the United States, residing at the village of Threeoaks, in the county of Berrien and State of Michigan, have invented certain new and useful Improvements in Garment-Stays, of which the following is a specification.

This invention relates to improvements in stiffening-tapes for garments. It is in some respects a modification and an adaptation of our improved stiffening material described in our application for Letters Patent filed concurrently herewith, Serial No. 134,344.

The object of our invention is to provide an improved garment-stay in which the fibers of which the same is composed are intimately incorporated.

Further objects will definitely appear in the detailed description to follow.

We accomplish the objects of our invention by the devices and means described in this specification.

The invention is clearly defined and pointed out in the claims.

A structure embodying the features of our invention is fully illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a plan view of our improved garment-stay. Fig. 2 is a plan view of one of the strands entering into the same. Fig. 3 is a detail cross-sectional view of the structure appearing in Fig. 1.

In the drawings similar letters of reference refer to similar parts throughout the several views.

Referring to the drawings, the tape or blade A is formed of a plurality of strands braided together. These strands are formed, preferably, of the fibered quill portion of feathers, which are bound together in a continuous strand by wrapping thread about the same. We preferably provide a continuous thread, which is bound together with the fibers to give longitudinal strength to the strand. These strands are braided together compactly as is possible on an ordinary machine. This blade is then processed by passing the same through a bath of suitable sizing material, which may be of any suitable adhesive material, as glue. The blade is then subjected to heat until it becomes soft and pliable and while in this condition is passed between rollers to compact and form the same into a blade of the desired shape. This process is substantially that described in the patent issued to us dated May 12, 1896, No. 559,827.

The fibers entering into the blade are so intimately compacted and united that their entire strength and resilience is made effective. The blade can therefore be made comparatively light. It is very strong and durable and is easily secured in position in a garment. The blade is quite satisfactory if the sizing is omitted, especially where the quill fiber is used, as the heating softens the quill fiber sufficiently to permit of its being compacted together.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A stiffening-blade consisting of a plurality of strands braided together, said strands consisting of the fibered quill portion of feathers bound together by a wrapping-thread, the whole being sized and compacted together.

2. A stiffening-blade consisting of a plurality of strands braided together, said strands consisting of the fibered quill portion of feathers bound together by a wrapping-thread, the whole being compacted together.

3. A stiffening-blade consisting of a plurality of strands braided together, said strands consisting of resilient fiber bound together by a wrapping-thread, the whole being sized and compacted together.

4. A stiffening-blade consisting of a plurality of strands braided together, said strands consisting of resilient fiber bound together by a wrapping-thread, the whole being compacted together.

In witness whereof we have hereunto set our hands and seals in the presence of two witnesses.

EDWARD K. WARREN. [L. S.]
JONAS H. HOLDEN. [L. S.]

Witnesses:
MORRIS G. MCGAWN,
MARY A. DAVIDSON.