

M. F. ANDERSON & G. W. BUCHANAN
TUBE.

APPLICATION FILED JULY 5, 1910.

986,960.

Patented Mar. 14, 1911.

Fig. 1.

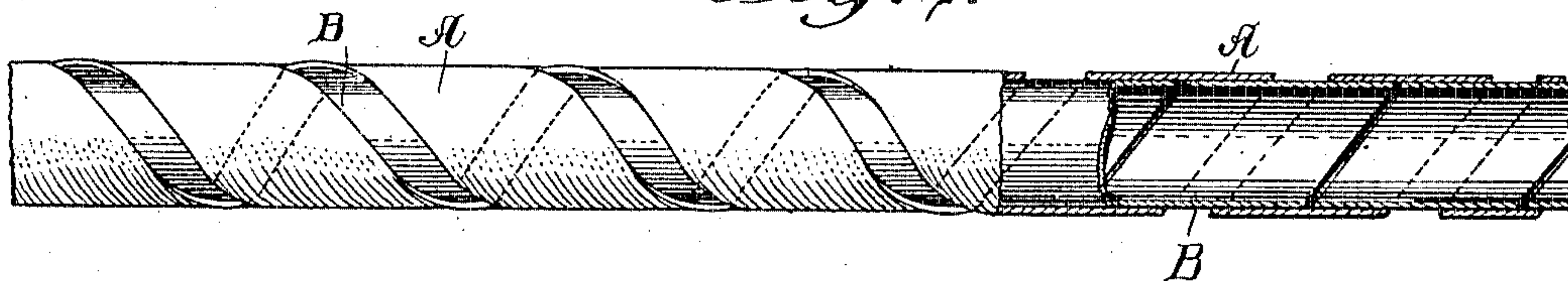


Fig. 2.

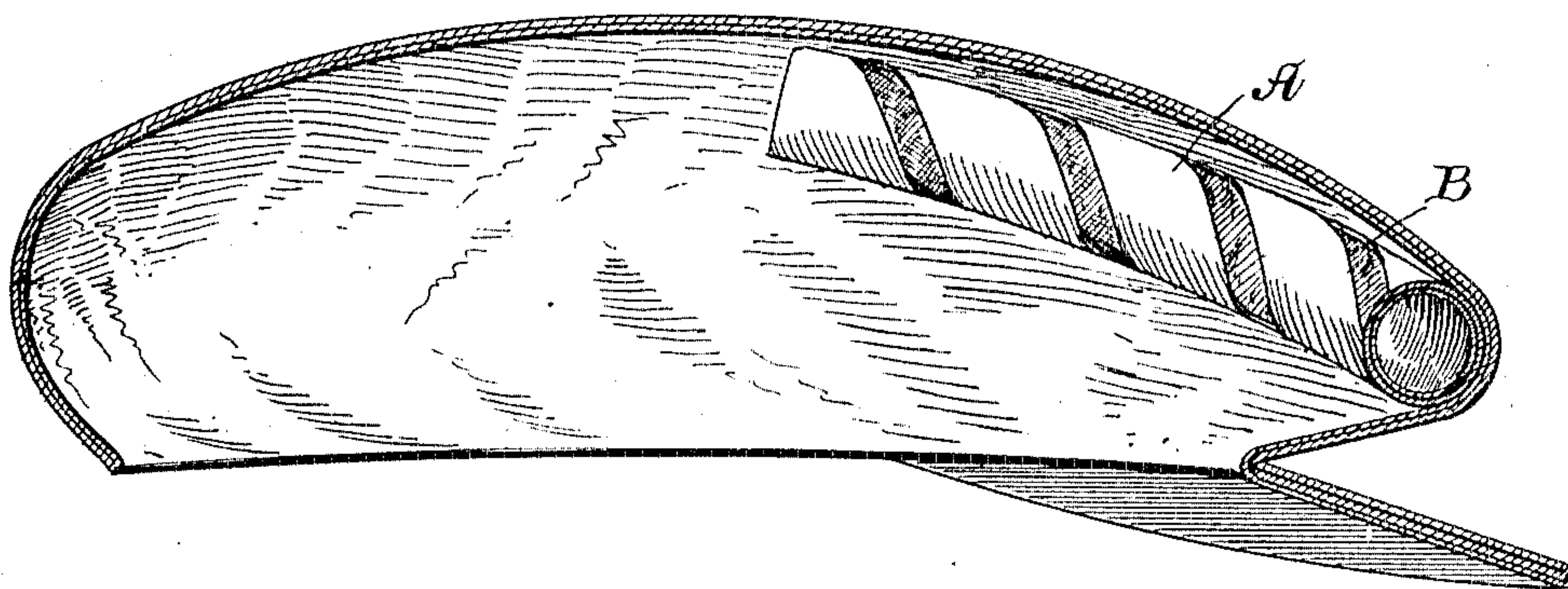
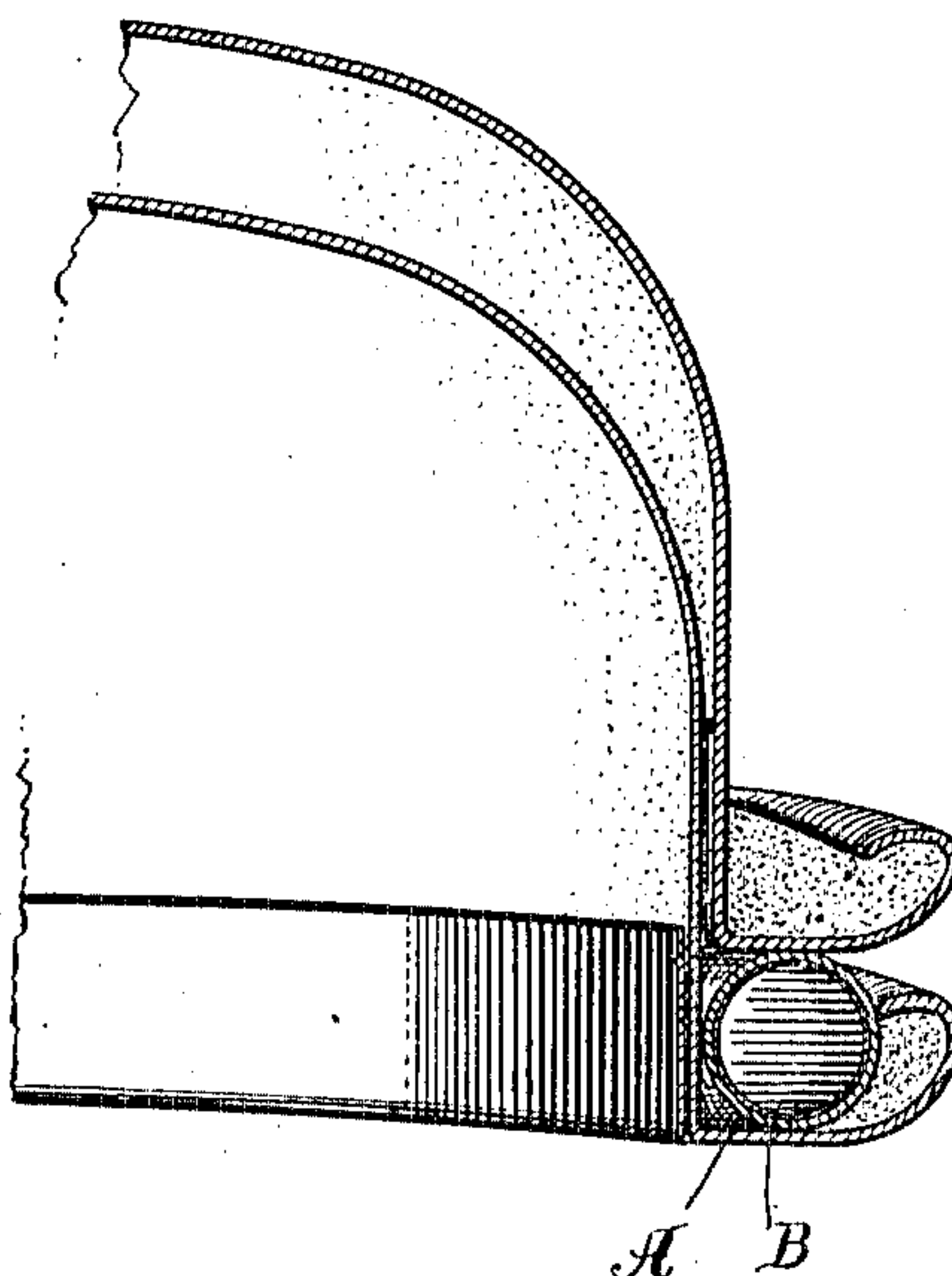


Fig. 3.



WITNESSES:

Geo. W. Maylor
Thos. G. Hester

INVENTORS
Millard F. Anderson
George W. Buchanan
BY *Mum Co*
ATTORNEYS

UNITED STATES PATENT OFFICE.

MILLARD F. ANDERSON, OF NEW YORK, AND GEORGE W. BUCHANAN, OF PEEKSKILL,
NEW YORK, ASSIGNORS TO STANDARD OIL CLOTH COMPANY, OF NEW YORK, N. Y.

TUBE.

986,960.

Specification of Letters Patent. Patented Mar. 14, 1911.

Application filed July 5, 1910. Serial No. 570,387.

To all whom it may concern:

Be it known that we, MILLARD F. ANDERSON, a resident of the city of New York, Bell Harbor, borough of Queens, in the
5 county of Queens and State of New York, and GEORGE W. BUCHANAN, a resident of Peekskill, in the county of Westchester and State of New York, both citizens of the United States, have invented a new and Im-
10 proved Tube, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved tube, more especially designed for use as a stiffener in caps and
15 like articles, or as a protector for nesting hats and for other various purposes, the tube being exceedingly light and flexible, to permit of readily bending it into curved shape to conform to the shape of the article
20 on which the tube is used at the time. For the purpose mentioned, use is made of a spiral band of a stiff material, and a lining of a thin flexible material attached to the opposite edges of successive convolutions of
25 the said spiral band, to extend across the space between adjacent convolutions.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in
30 which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the tube, parts being in section; Fig. 2 is a transverse section of a cap provided with a tube form-
35 ing a stiffener for the front end of the crown of the cap; and Fig. 3 is a cross section of nested hats with a tube interposed between the rims to protect the same.

The tube is formed of a spiral band A of
40 a stiff material such as pasteboard and the like, and a lining B in the form of a spiral strip of thin material such as tissue paper and the like, and the lining B is secured by glue, paste or other adhesive material to the
45 inside of the spiral band A in such a manner that it extends across the space between the convolutions of the band. Thus by the arrangement described a tube is formed in

which the convolutions of the stiff spiral band A are spaced apart but are connected
50 with each other by the lining B of thin, flexible material, and hence the tube can be readily bent into a curved shape, as the thin lining readily folds at the inner portion of
55 the bend, while the outer portion of the lining holds the convolutions of the spiral band A from spreading apart.

A tube formed in the manner described can be readily used for various purposes; for instance, as shown in Fig. 2, it can be
60 placed into the crown of a cap at the forward end thereof and bent to conform to the peripheral edge of the crown to hold the same sufficiently stiff above the vizor, as indicated in the figure referred to. The tube
65 can also be used around the crown of a stiff or a Derby hat to protect the rim thereof when nesting the hats, as indicated in Fig. 3, it being understood that in this case the rim of one hat rests on top of the tube
70 held on the next hat below, so that the rims of the nesting hats do not come in contact with each other and hence do not bend the rims out of shape.

Having thus described our invention, we
75 claim as new and desire to secure by Letters Patent:

A tube formed from a band of stiff material bent into spiral form and with the convolutions spaced apart from each other,
80 and a flexible connection between the adjacent edges of the convolutions, said connection being adapted to fold at one side of the tube to permit the convolutions to ap-
85 proach each other at the said side when the tube is bent and to prevent the convolutions separating at the other side.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

MILLARD F. ANDERSON.
GEORGE W. BUCHANAN.

Witnesses:

W. E. THATCHER,
HENRY A. FISKE.