

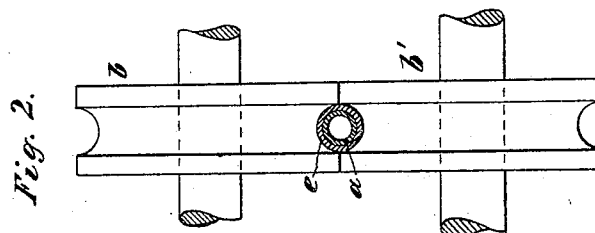
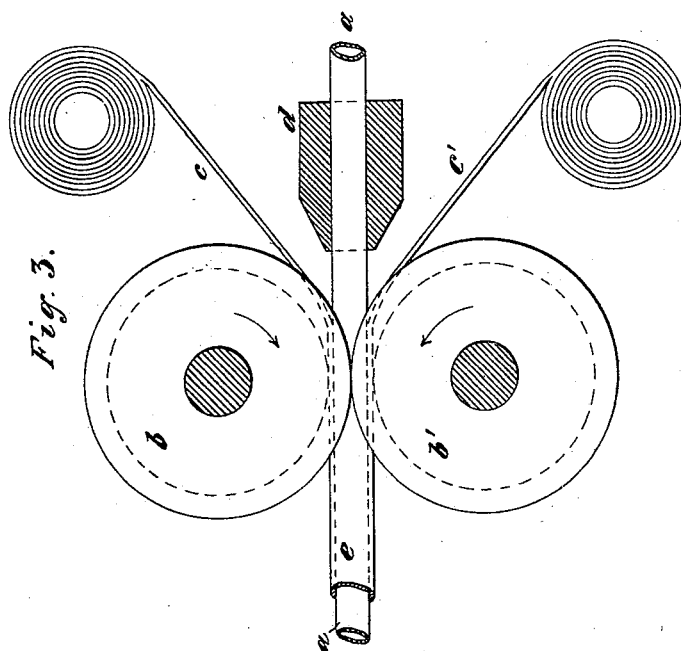
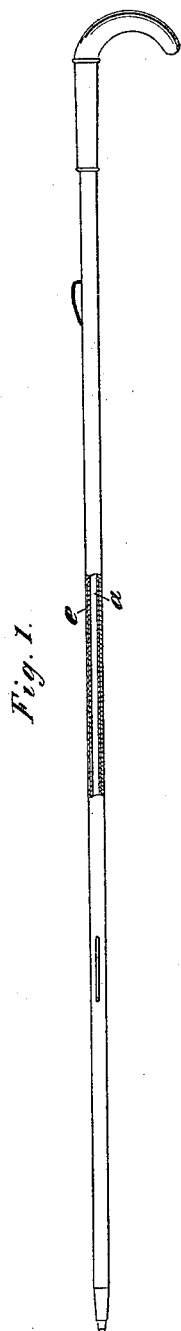
(No Model.)

W. BAUMGARTEN.

PROCESS OF COVERING STICKS FOR UMBRELLAS.

No. 263,462.

Patented Aug. 29, 1882.



Witnesses-  
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# UNITED STATES PATENT OFFICE.

WILHELM BAUMGARTEN, OF HAMBURG, GERMANY.

## PROCESS OF COVERING STICKS FOR UMBRELLAS.

SPECIFICATION forming part of Letters Patent No. 263,462, dated August 29, 1882.

Application filed April 10, 1882. (No model.) Patented in Germany October 7, 1880, No. 15,148; in Great Britain October 18, 1880, No. 4,241; in France October 22, 1880, and in Austria February 4, 1881.

*To all whom it may concern:*

Be it known that I, WILHELM BAUMGARTEN, of Hamburg, in the Empire of Germany, have invented a new and useful Improvement in the Process of Covering Sticks for Umbrellas and Sunshades with Vulcanite, of which the following is a full, clear, and exact description.

My invention consists in covering an umbrella or sunshade stick with vulcanite by first pressing upon the stick rubber in the form of two bands or strips and then vulcanizing such covering. By this process a metal tube can be rapidly and conveniently provided with a covering of vulcanite, and the surface of the latter can be polished, thereby furnishing a light, substantial, and attractive stick for an umbrella or sunshade.

Figure 1 in the accompanying drawings is a longitudinal view, partly in section. Figs. 2 and 3 are vertical sectional views taken at right angles to each other, illustrative of an apparatus for and method of applying the india-rubber to the tube.

*a* in the several figures is the tube, and *e* is the india-rubber or vulcanite covering thereon.

*c c'* in Figs. 2 and 3 are two bands, composed of india-rubber having mixed with it the sulphur or other matters to prepare it for vul-

canization, the width of these bands being sufficient to enable each to half encircle the tube *a*. The said bands are, by means of two rotating rollers, *b b'*, having semicircular grooves in their periphery, pressed onto the surface of the tube *a*, so that their edges are united and they combine to form the complete covering *e*. The tube *a* is conducted to the rollers by a fixed guide, *d*, through which it is drawn by the friction of the rollers and the bands *c c'*, the latter being at the same time drawn from two rollers, *d d'*, by the friction of the said rollers *b b'*. After the covering *e* has been thus applied, the tube, with its coating, is placed in the vulcanizing apparatus, and the covering is therein vulcanized and secured to the tube.

Having thus described my invention, what I claim is—

The process herein described of covering an umbrella or sunshade stick with vulcanite, which consists in pressing upon the stick rubber in the form of two bands or strips and then vulcanizing the same, substantially in the manner and for the purpose set forth.

WILHELM BAUMGARTEN.

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