

No. 697,227.

Patented Apr. 8, 1902.

F. A. WILCOX & J. R. GAMMETER.
INNER TUBE FOR PNEUMATIC TIRES.

(Application filed Feb. 24, 1902.)

(No Model.)

Fig. 1.

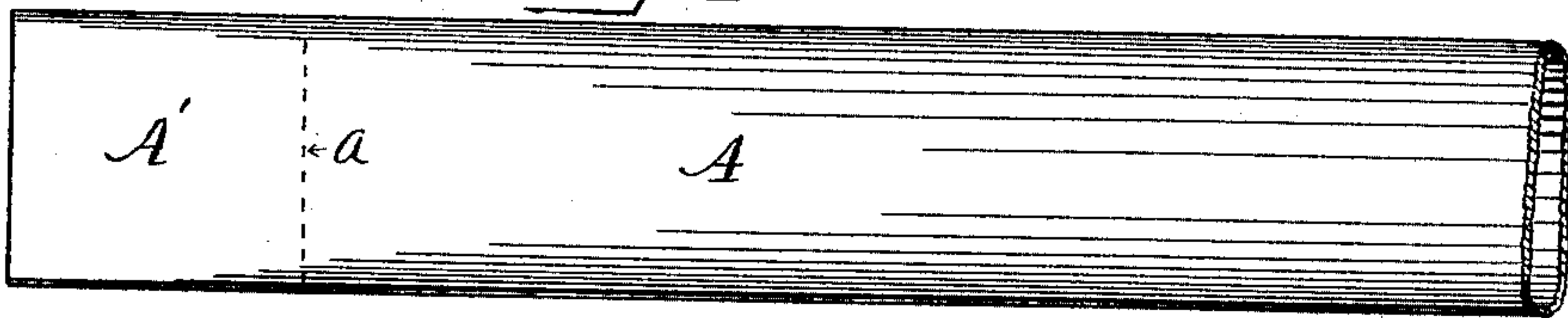


Fig. 2.

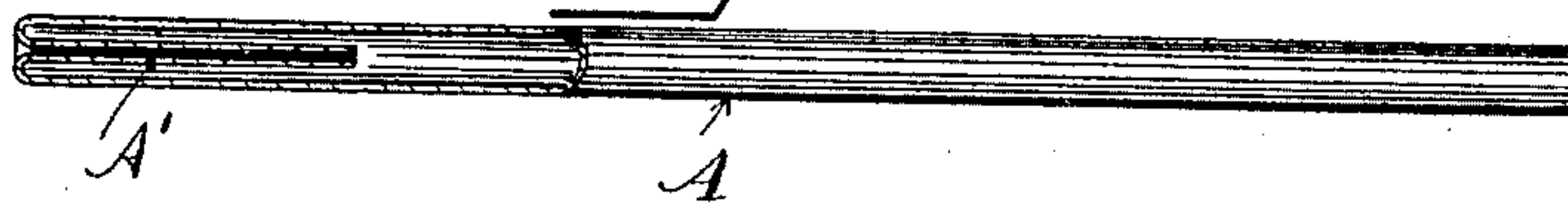


Fig. 3.

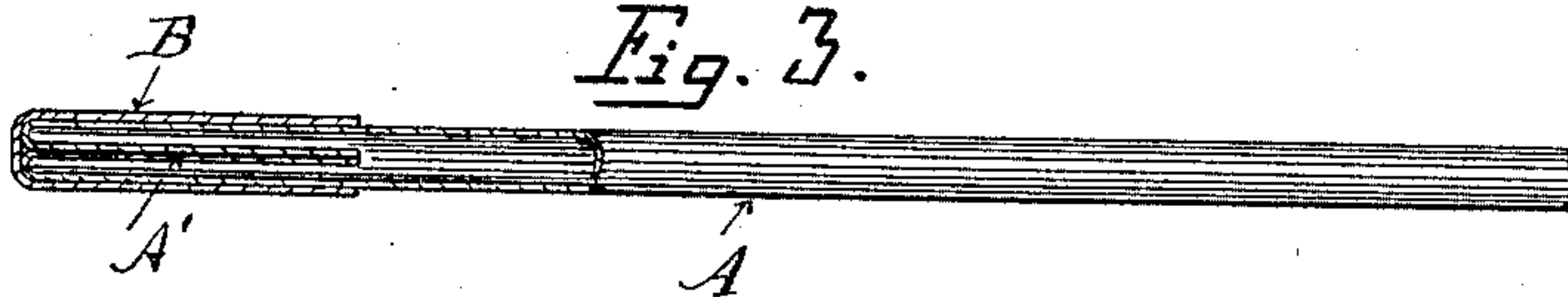


Fig. 4.

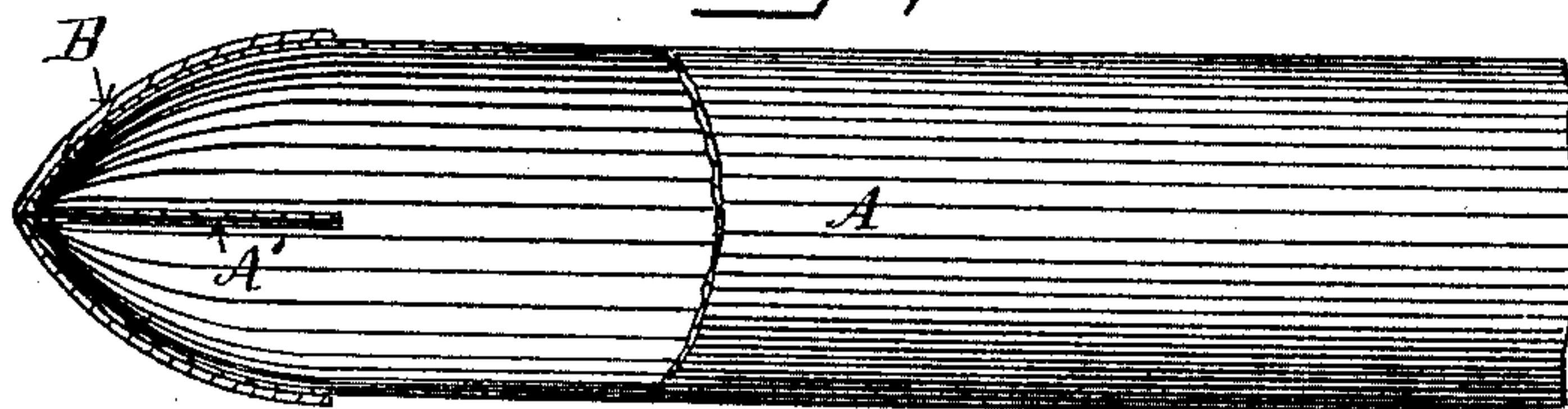
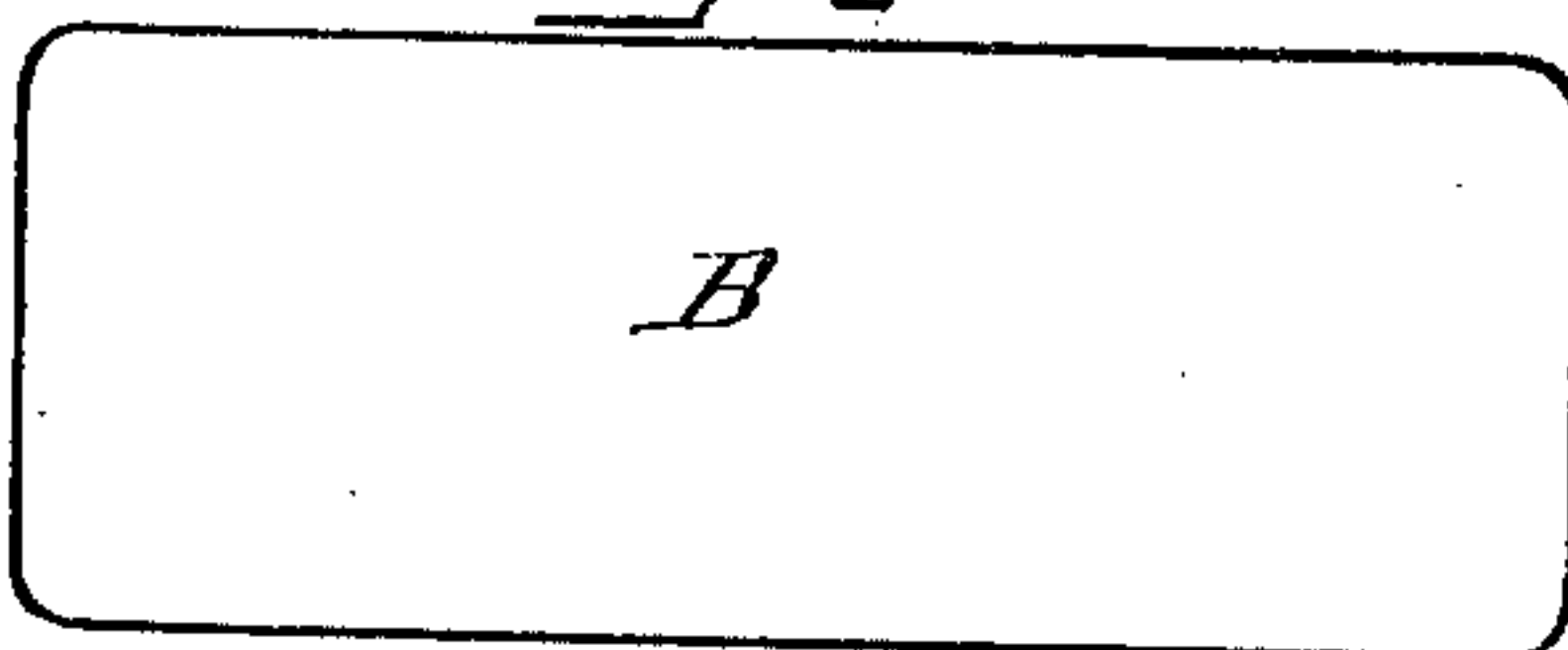


Fig. 5.



WITNESSES.
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UNITED STATES PATENT OFFICE.

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INNER TUBE FOR PNEUMATIC TIRES.

SPECIFICATION forming part of Letters Patent No. 697,227, dated April 8, 1902.

Application filed February 24, 1902. Serial No. 95,398. (No model.)

To all whom it may concern:

Be it known that we, FRANK A. WILCOX, residing at Erie, in the county of Erie and State of Pennsylvania, and JOHN R. GAMMETER, residing at Akron, in the county of Summit and State of Ohio, citizens of the United States, have jointly invented certain new and useful Improvements in Inner Tubes for Pneumatic Tires; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming part of this specification.

Our invention relates to improvements in inner tubes for pneumatic tires, and particularly to that class of inner tubes used within a tire sheath or casing, in which the terminals of the inner tube are closed and overlapped in the tire sheath or casing.

The objects of this invention are to effect economical and permanent closures of the ends or terminals of such inner tubes, so that they will effectually prevent the escape of air therefrom and be adapted to resist the rupture of the tube end closures when the tube ends are overlapped, inflated, and in use in the tire sheath or casing.

The features of our invention are hereinafter set forth and described, and illustrated in the accompanying drawings, in which—

Figure 1 shows a plan view of a section of an inner tube flattened and before the end closure thereof is effected. Fig. 2 shows the same partially in section, having one end thereof turned or folded inward and the adjacent faces of the inturned portion cemented together. Fig. 3 shows the same with a reinforcing-strip cemented around the end closure. Fig. 4 shows a sectional view of the closure of the end of the tube when inflated. Fig. 5 shows a plan view of the reinforcing-strip employed in our improved closure.

In the drawings illustrating our invention, A indicates a flattened section of an inner tube, and A' the end portion thereof to be turned or folded back into the tube A in forming the closure of the end thereof.

In making our improved closure the outside surface of the end portion A' of the tube is coated with cement approximately to the dotted line *a* in Fig. 1. This portion A' is then turned or folded back into the tube approximately to the dotted line *a*, which brings the outer faces of the part A' together, and when pressure is applied thereto they firmly adhere to each other, effectually closing the end of the tube, as illustrated in Fig. 2. We then cement around the closed end of the tube a reinforcing-strip B of rubber or fabric, as illustrated in Figs. 3 and 4, which completes our closure and effectually prevents the rupture thereof.

Hereinbefore we have described the inturned portion A' of the tube as coated over its outer surface before it is turned inward. It can, however, be turned inward first and the cement applied to the adjacent surfaces thereof thereafter, if desired.

We have thus shown and described our invention so as to enable others to make and utilize the same, and

What we claim as new, and desire to secure by Letters Patent of the United States, is—

In an inner tube for pneumatic tires, an end closure comprising the end portion thereof turned back into the tube, the adjacent faces of said inturned portion of the tube cemented together, and a reinforcing-strip of rubber or fabric cemented around the end of the tube, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

FRANK A. WILCOX.
JNO. R. GAMMETER.

Witnesses:

H. C. WILCOX,
RALPH WILCOX.