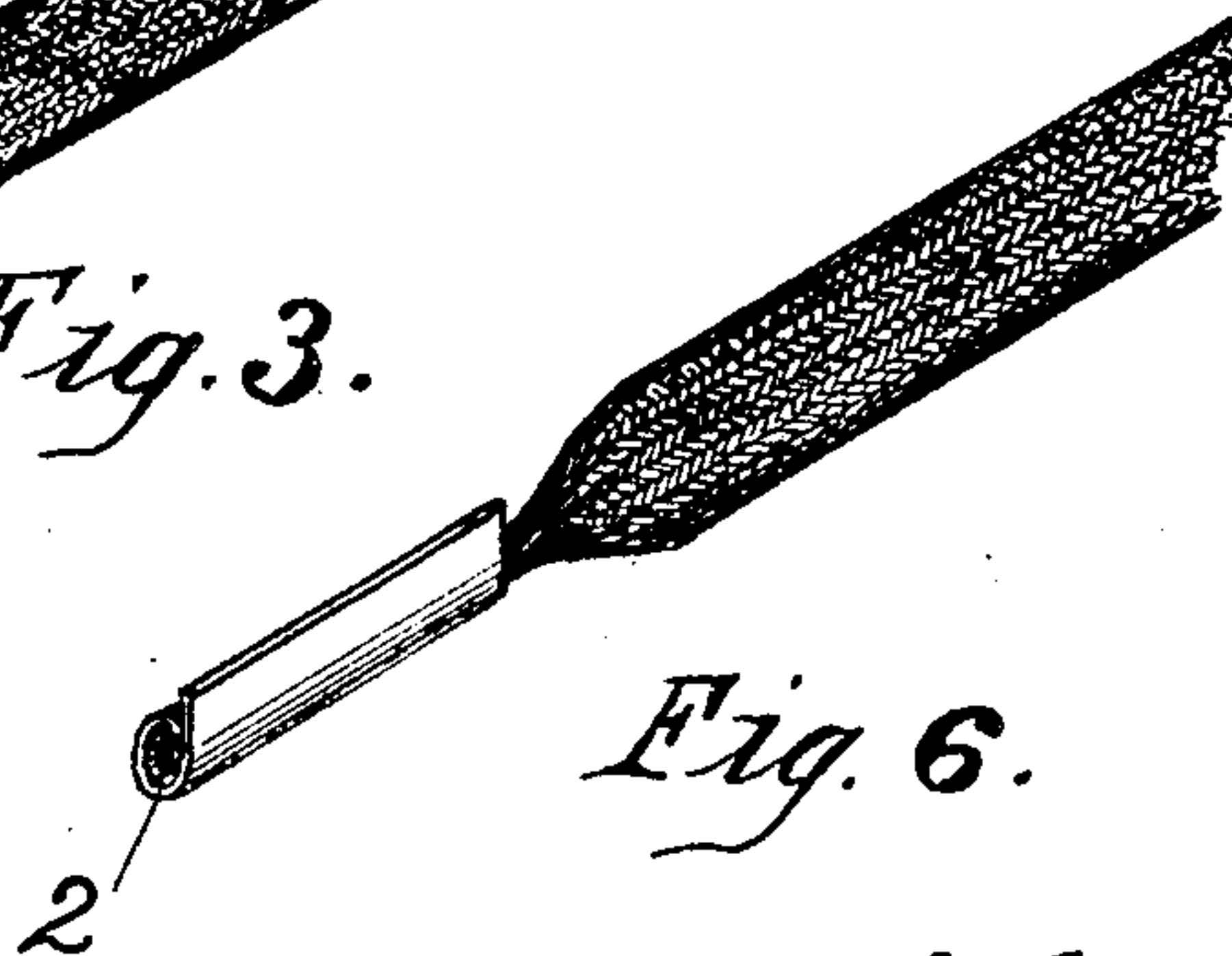
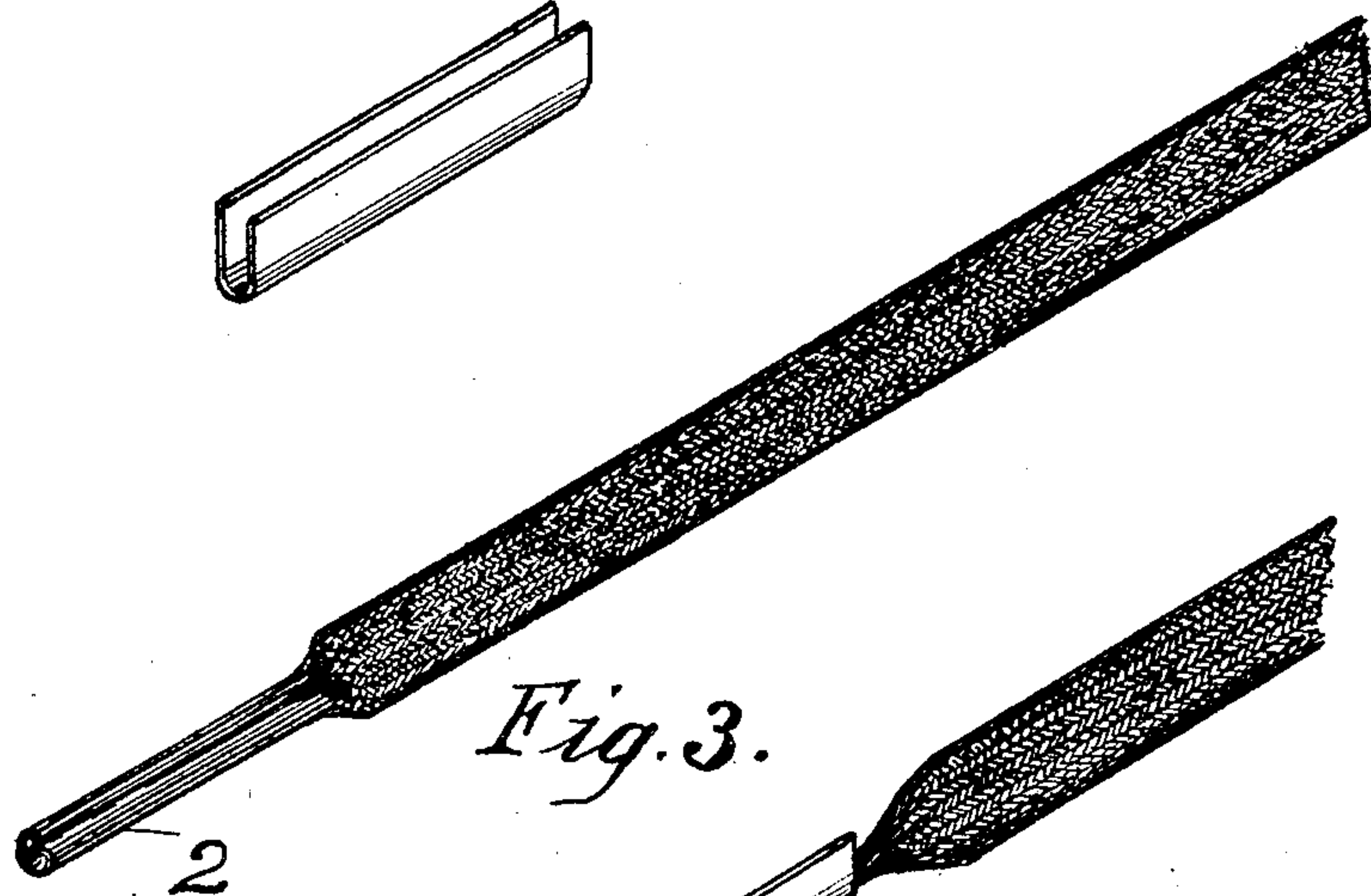
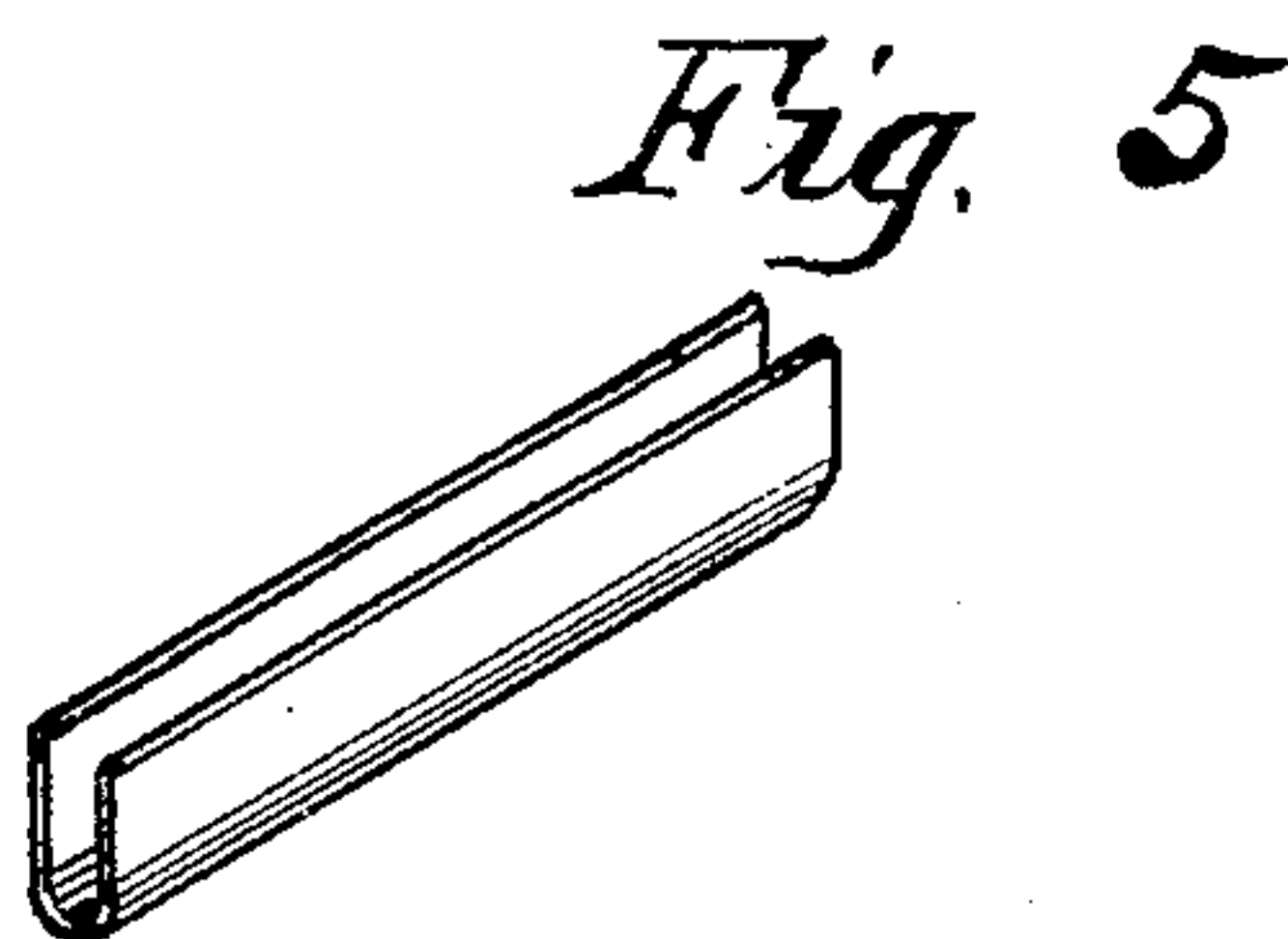
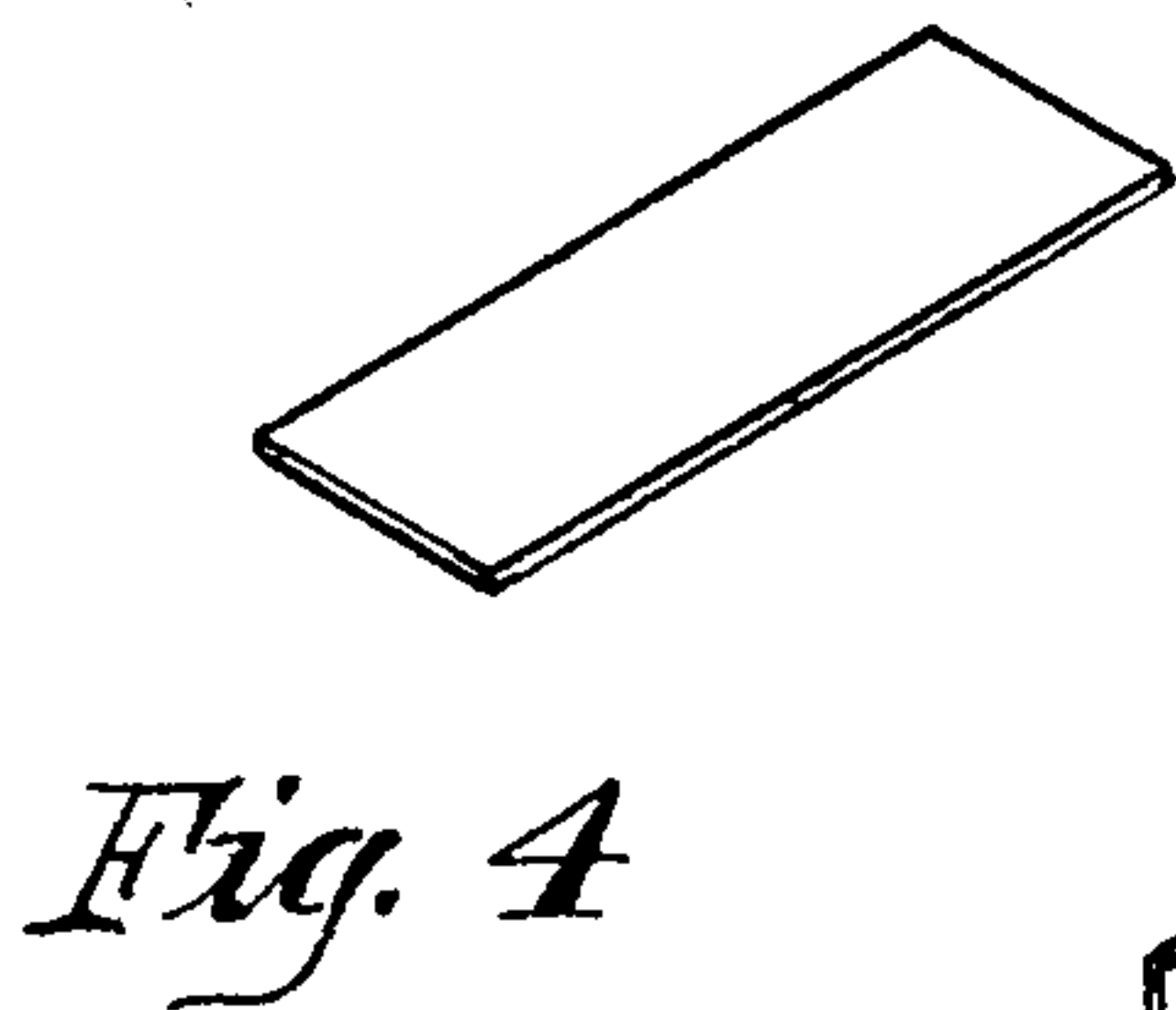
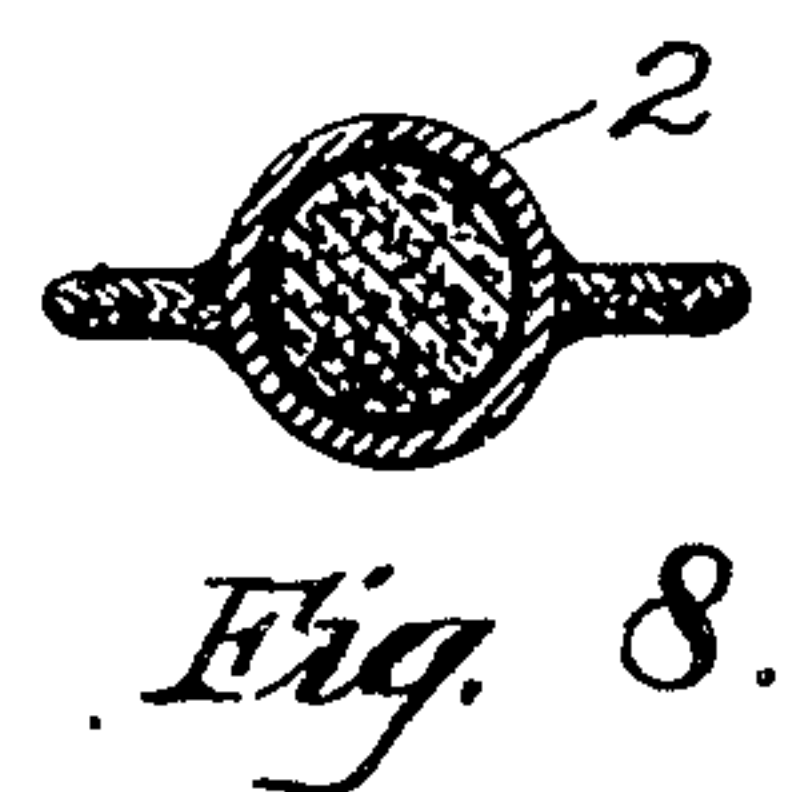
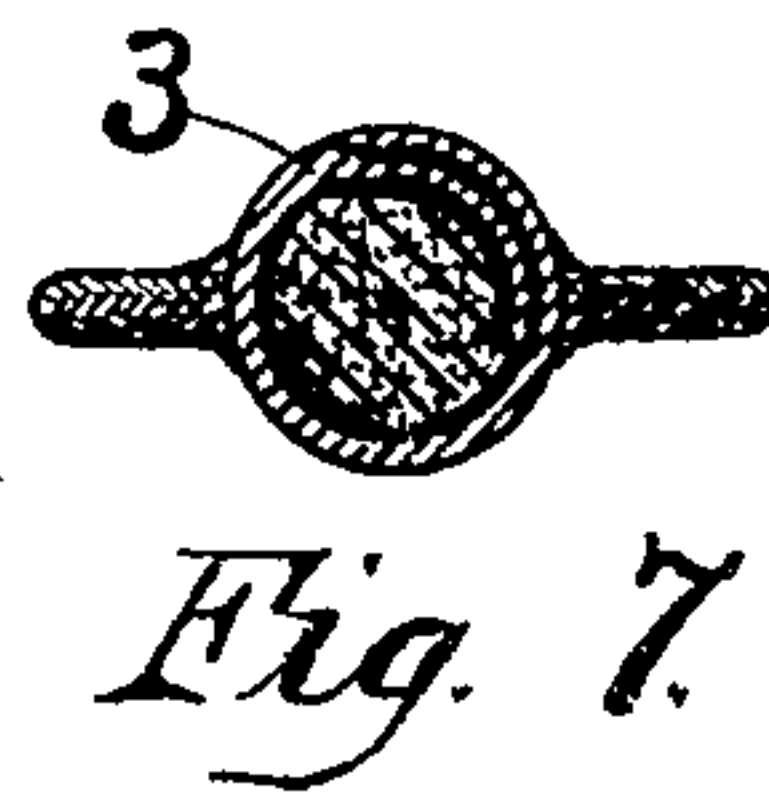
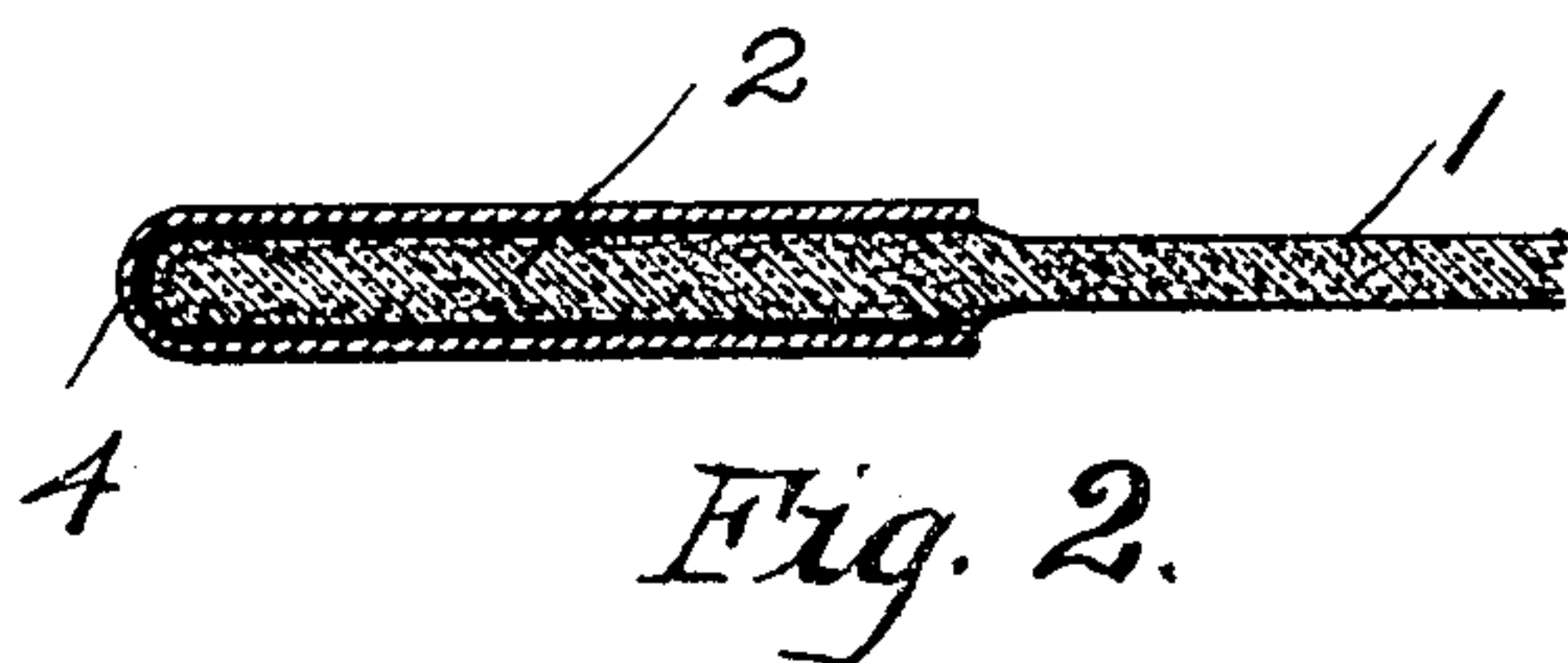
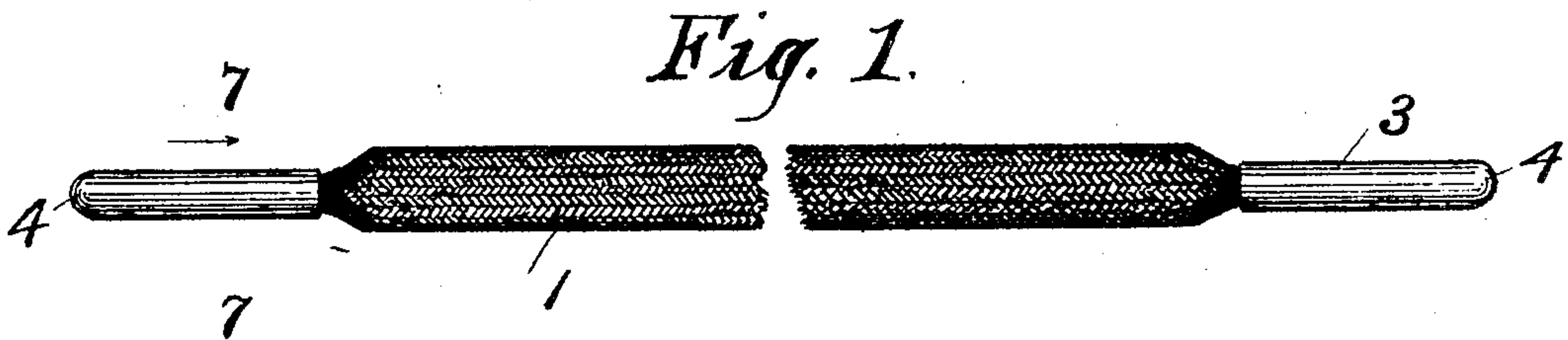


No. 795,375.

PATENTED JULY 25, 1905.

D. G. SUNDERLAND.
TIP FOR LACINGS.
APPLICATION FILED DEC. 19, 1904.



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TIP FOR LACINGS.

No. 795,375.

Specification of Letters Patent.

Patented July 25, 1905.

Application filed December 19, 1904. Serial No. 237,408.

To all whom it may concern:

Be it known that I, DANIEL G. SUNDERLAND, a resident of the town of North Attleboro, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Tips for Lacings; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in lacings, and has for its object to provide an improved lacing-tip in which the use of a metal stiffening is obviated.

The ordinary metal tip that is formed by wrapping a thin sheet of metal around the end of the lacing has many disadvantages. First, as it is not cemented or securely fastened to the lacing it easily becomes detached therefrom. Then, again, the enamel soon wears or becomes chipped off, leaving the metal exposed and it does not present a finished appearance. My invention is a great improvement over this metal tip and is designed to obviate all of the above-named difficulties, the essential feature being to form a tip of paper, fabric, or other suitable flexible or semiflexible material by wrapping the same around a condensed portion of the lacing and securing said covering to the lacing by means of cement.

A further object of the invention is to form a rounded end on the tip by carrying the said covering material over the end thereof and forming it up in a die.

The invention is fully set forth in this specification, and more particularly pointed out in the claims.

In the accompanying drawings, Figure 1 represents the two end portions of a lacing having a paper tip formed on said ends. Fig. 2 is an enlarged central longitudinal section of a tip, also showing an edge view of a portion of the lacing. Fig. 3 represents one end of the lacing reduced or rolled into a compact form in condition to receive the outer covering. Fig. 4 represents a piece of the covering before applied to the tip. Fig. 5 represents said covering as drawn up into a U shape preparatory to receiving the reduced end of the lacing therein. Fig. 6 represents the reduced portion of the lacing with the

covering represented as being rolled thereon. Fig. 7 represents an enlarged sectional end view of the covering as applied to the end of a tip, said covering having its edges lapped. Fig. 8 represents the same as Fig. 7 with the exception that the covering has its edges butted together instead of lapped.

Referring to the drawings, at 1 is the lacing, the ends of which are reduced, condensed, or rolled tightly together by the use of dies or other convenient means into the form illustrated at 2 in Fig. 3. To this reduced portion may be applied a suitable cement, if desired. A strip of paper, cloth, or other suitable or similarly flexible material may then be applied to this said reduced portion of the lacing and tightly wound around or in any suitable manner compressed onto the same by means of dies or other convenient methods, as illustrated at 3 in Figs. 7 and 8.

It is found in practice that a convenient method of applying the cement is to first coat the inner surface of the covering, which may be done as said covering is fed in from a roll to be applied to the tip. By the use of a fibrous material for this purpose—such as paper, cloth, or the like—it is possible to force the cement into the body of both the covering and the end of the lacing, thus securely binding them together as one.

Another feature of this invention is that the covering may be turned over the end of the tip at 4, forming a neat round finish on the same.

A great advantage obtained with a covering of paper or fabric is that these materials may be obtained in any desired colors, said colors being permanently fixed and cannot be chipped or worn off.

By the above means I am enabled to provide a lacing with tips of sufficient rigidity to permit the tip to be readily threaded through the eyelets of the article to which it is to be applied without the use of a metallic stiffening.

The tip formed as hereinabove described is, furthermore, extremely neat in appearance, simple and inexpensive of construction, and very durable.

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

1. A lacing compressed or condensed at its end portions and a covering of flexible mate-

rial applied and cemented to said compressed portions forming a stiffened tip thereon.

2. A lacing condensed at its end portions and an outer covering of fibrous material cemented and compressed onto said condensed portion forming a stiffened tip.

3. A lacing condensed at its end portions, an outer covering of fibrous material and an intermediate layer of cement, the whole being tightly compressed together forming a stiffened tip.

4. A lacing condensed at its end portions, an outer covering of paper and an intermediate layer of cement, the whole being tightly compressed together forming a stiffened tip.

5. A lacing condensed at its end portions,

an outer covering of paper wound around said condensed portions and an intermediate layer of cement the whole being tightly compressed together forming a stiffened tip.

6. A lacing condensed at its end portions, an outer covering of fibrous material cemented and compressed onto said condensed portions, said covering being carried over and completely inclosing the end thereof forming a stiffened tip with a finished end.

In testimony whereof I have hereunto set my hand this 10th day of December, A. D. 1904.

DANIEL G. SUNDERLAND.

In presence of—

HOWARD E. BARLOW,
E. I. OGDEN.