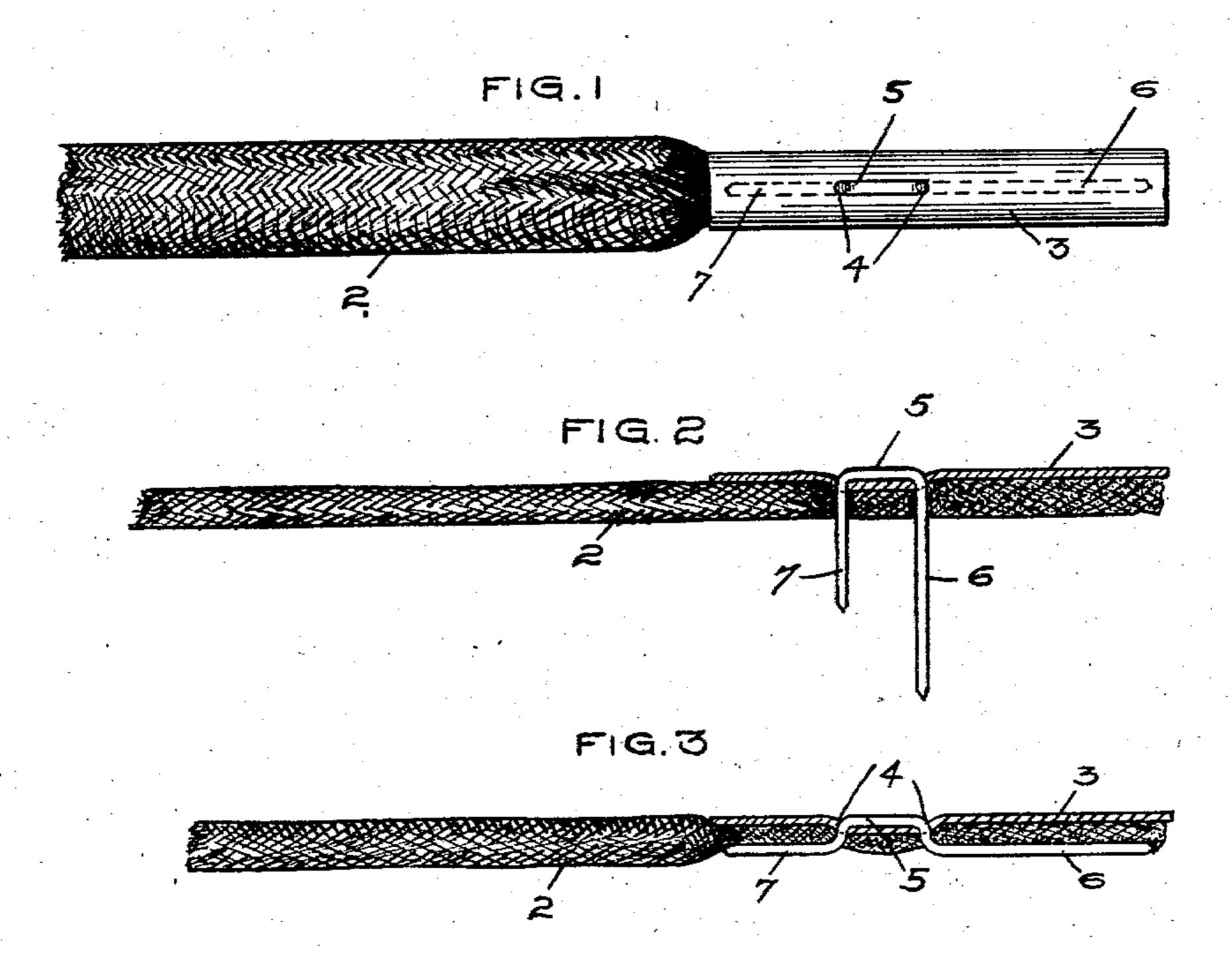
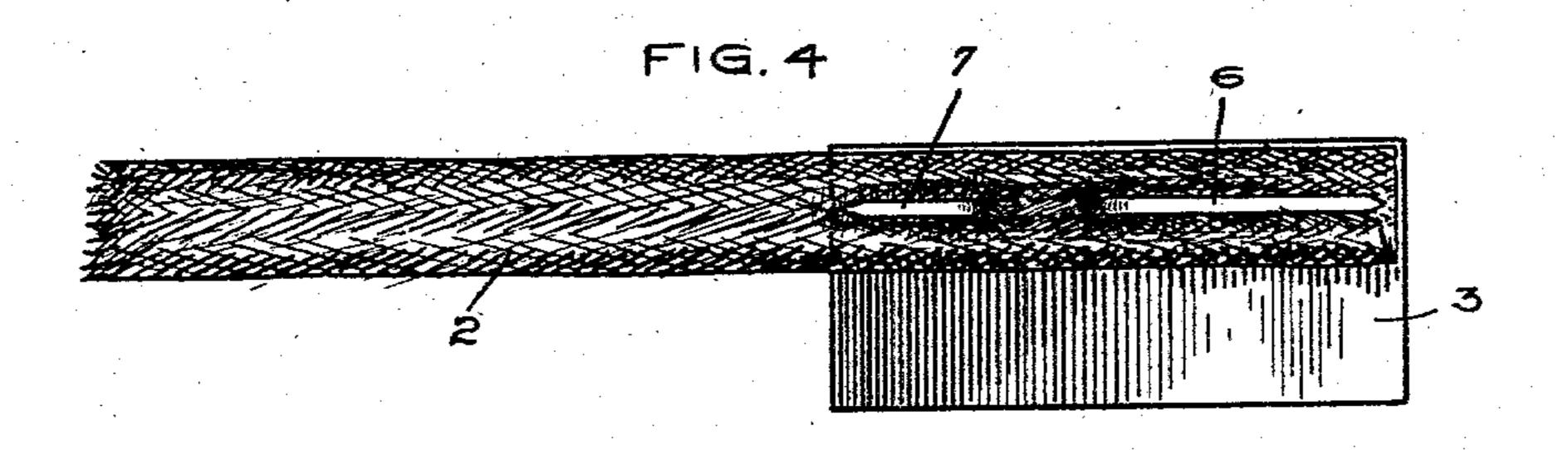
M. A. COX.

LACE.

APPLICATION FILED FEB. 20, 1903.

NO MODEL.





WITNESSES:

J. R. Keller Frank D. St. Colair. INVENTOR.

many of for.

THE NORMS PETERS OF PHOTOMORPHOLINGTON I

United States Patent Office.

MARY A. COX, OF PITTSBURG, PENNSYLVANIA.

LACE.

SPECIFICATION forming part of Letters Patent No. 730,614, dated June 9, 1903.

Application filed February 20, 1903. Serial No. 144,188. (No model.)

To all whom it may concern:

Be it known that I, MARY A. Cox, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Penn-5 sylvania, have invented certain new and useful Improvements in Laces, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to an improved tip ro for shoe and other laces; and the primary object is to provide means for so securing the tip to the lace as to prevent its pulling off under all conditions of ordinary use and wear.

In the accompanying drawings, Figure 1 is 15 an elevation, enlarged, of one end of a lace having the tip applied in accordance with my invention. Figs. 2 and 3 are sectional views illustrating the manner in which the tip-fastener is applied. Fig. 4 is an inside face 20 view of the blank before it is rolled about the end of the lace.

Referring to the drawings, 2 designates the lace, and 3 the sheet-metal tip adapted to be rolled about the extremity thereof. In the 25 preferred adaptation of the invention the tipblank is formed with two relatively close apertures 4. Before the blank is rolled up into finished form a staple-like fastener 5 is passed through said apertures, with its pin-like 30 prongs 6 and 7 extending through the lace at the inner face of the blank. The prongs, respectively, are then bent forward and backward, as shown, bearing lengthwise against the lace and holding it flatly against the blank. The blank, with the lace thus secured, is then rolled up into finished form, with the pin-like staple-prongs completely inclosed, as shown in Fig. 1. The tip is thus so securely fastened that ordinary endwise 40 strains will not loosen the same, as before it can come off the staple-like fastening must split the lace to its extreme end.

The pin-like prongs are preferably of such length as to nearly reach the tip ends, and in 45 order to secure the strongest possible hold the fastening device is preferably inserted nearer the rear than the front end of the

blank, with front prong 6 slightly longer than

prong 7.

I am aware that prior to my invention lace- 50 tips have been proposed wherein the tipblanks are formed with integral spurs to penetrate the lace. My invention differs therefrom in having a separate insertible fastener adapted to clench down on the lace and per- 55 manently hold the tip thereon. Such fastener also permits of the use of relatively long pin-like prongs, which it is impossible for the lace to disengage save by splitting.

I claim as my invention—

1. The combination of a lace, a rolled or bent-up tip adapted to embrace and inclose the lace extremity, and a detachable pronglike fastener extended through the tip-blank and lace and bent toward the outer end of the 65 tip with the lace between the tip and prong, whereby when the tip is rolled or bent up the prong portion of the fastening is completely inclosed therein.

2. The combination of a lace, a rolled or 70 bent-up tip adapted to embrace the lace extremity, and a staple-fastener having its prongs extended through the tip-blank and lace and bent in opposite directions toward the tip ends with the lace confined between 75 the blank and prongs, whereby when the tip is rolled or bent up the staple-prongs are completely inclosed therein.

3. The combination of a lace, a rolled or bent-up tip adapted to embrace the lace ex- 80 tremity and formed with two apertures, and a staple-fastener having slender or pin-like prongs extended through the tip-blank apertures and bent to confine the lace between the same and the blank, whereby when the 85 tip is rolled or bent up the staple-prongs are completely inclosed therein.

In testimony whereof I affix my signature in presence of two witnesses.

MARY A. COX.

Witnesses:

J. M. NESBIT, ALEX. S. MABON.