

No. 722,902.

PATENTED MAR. 17, 1903.

F. RICHARDSON.

LACING TIP.

APPLICATION FILED JAN. 31, 1902.

NO MODEL.

Fig. 1.



Fig. 2.

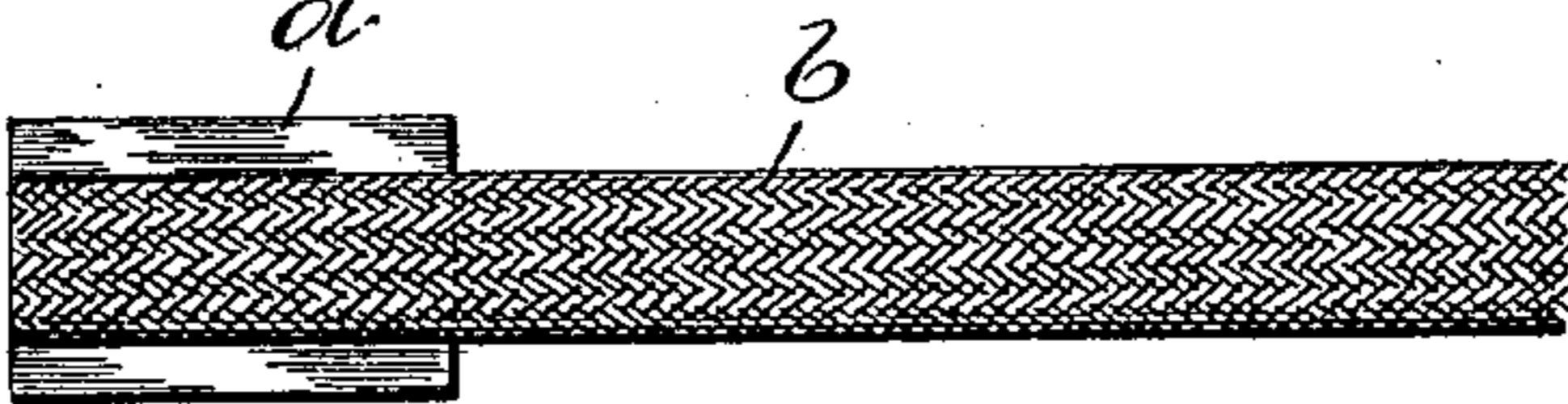


Fig. 3.

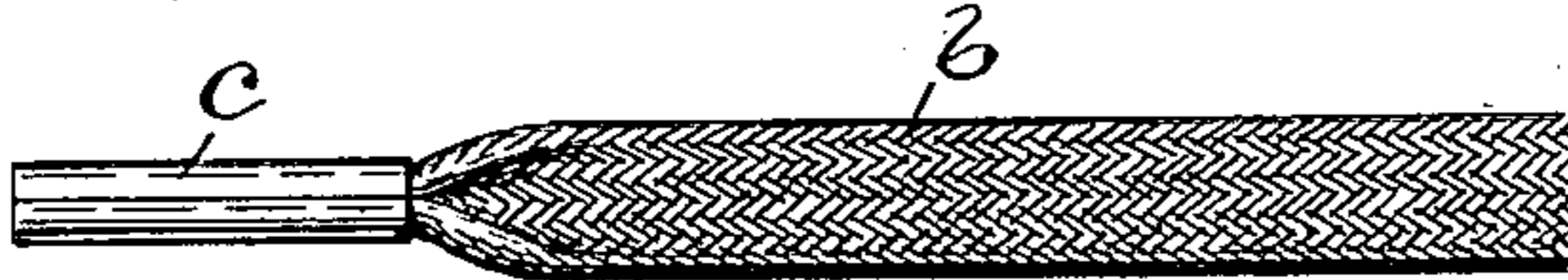


Fig. 4.

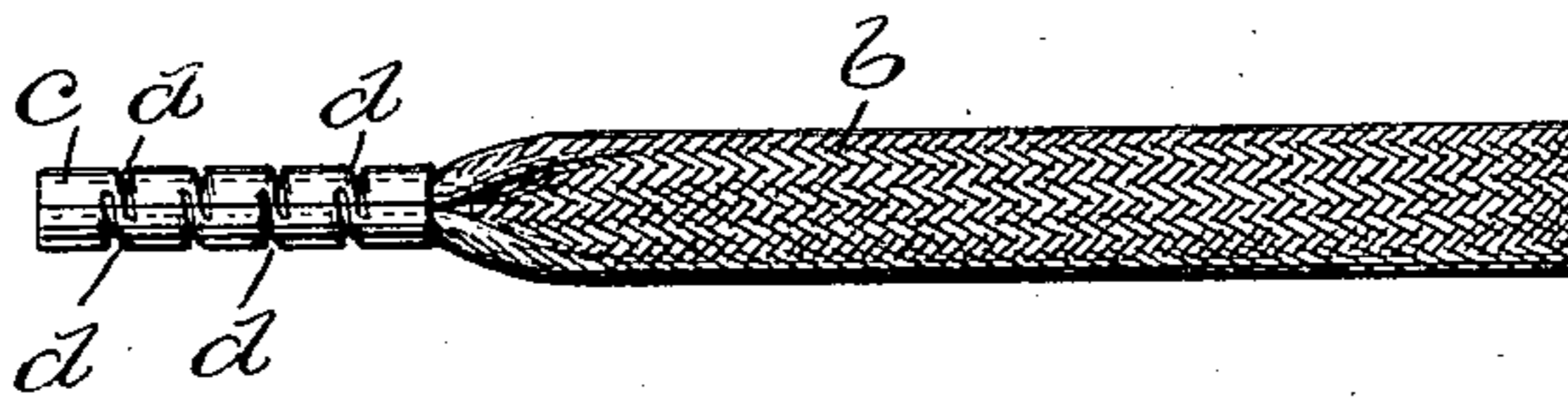
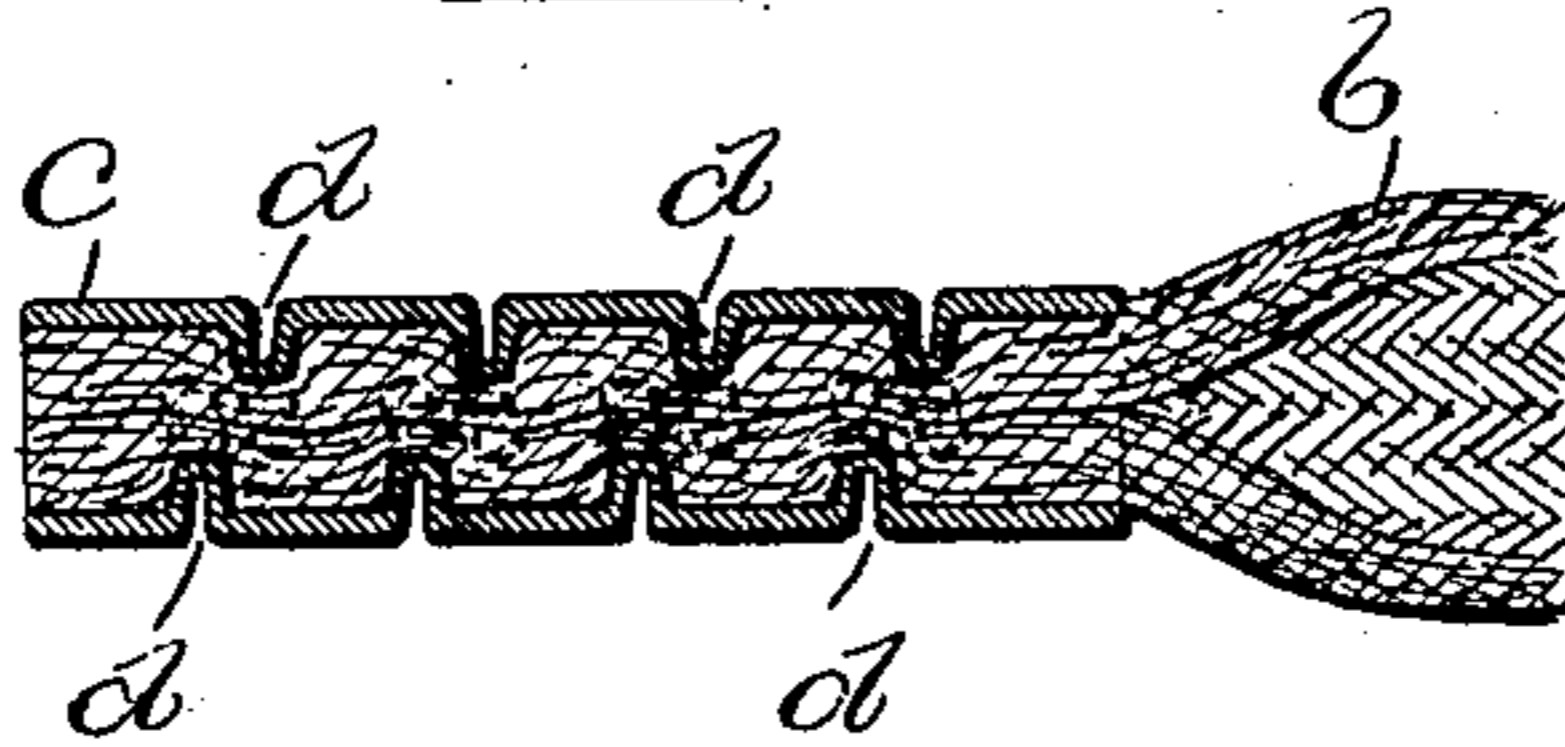


Fig. 5.



WITNESSES:

Ada E. Hagerty.
Chas. H. Luther Jr.

INVENTOR:

Frederick Richardson
Joseph A. Miller & Co.
ATTORNEYS:

UNITED STATES PATENT OFFICE.

FREDERICK RICHARDSON, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR OF
ONE-THIRD TO MILES H. RAY, OF EAST PROVIDENCE, RHODE ISLAND.

LACING-TIP.

SPECIFICATION forming part of Letters Patent No. 722,902, dated March 17, 1903.

Application filed January 31, 1902. Serial No. 92,074. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK RICHARDSON, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Lacing-Tips, of which the following is a specification.

This invention has reference to an improvement in the construction of the metal tips usually secured to the ends of shoe and other laces.

Lacing-tips are usually formed by bending a thin plate of sheet metal around the ends of the lace, thereby forming the usually flat lace into a round end which can be readily inserted into the eyelets.

The object of this invention is to secure the sheet-metal tip to the lace; and it consists in the peculiar and novel construction whereby a portion of the sheet metal of the tip is forced inward from the opposite sides to lock the same to the lace at points offset to one side and not opposite to each other.

Figure 1 is a perspective view of the blank of sheet metal from which the tip is bent up. Fig. 2 is a plan view showing the lace placed on the blank of sheet metal ready to be bent into the tip. Fig. 3 is a side view of the lace with the bent-up tip. Fig. 4 is a side view of the lace provided with the crimped tip. Fig. 5 is a sectional view of the lace provided with the crimped tip, showing the crimps extending into the lace staggered so as to compress the lace between the sides of the crimps.

In the drawings, *a* indicates the blank of sheet metal of which the tip is formed; *b*, the lace; *c*, the bent-up tip, and *d d* the crimps.

The tip is formed by bending a sheet-metal blank around the lacing in any suitable manner. The crimping of the metal tip is then done by two reciprocating dies sliding parallel to each other and acting simultaneously on the two opposite sides of the tip to force the metal inward to clamp the lacing fabric between the sides of the two opposite crimps. The crimps are offset, so that the lacing is not compressed between the inner edges of two crimps, because in such a construction a strain on the lacing tends to separate the crimps and open the tip, while by offsetting the crimps the strain of the lace is resisted by the sides of the crimps and does not tend to open the tip.

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

1. In a lacing-tip, the combination with a bent-up sheet-metal tip, of crimps formed in the sheet-metal tip, the planes of which are offset to pass by each other to clamp the material of the lacing, as described.

2. In a lacing-tip, the combination with a sheet-metal tip formed around the lace, of crimps formed in the opposite sides of the metal tip, the planes of which are offset to pass by each other, as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK RICHARDSON.

Witnesses:

JOSEPH A. MILLER, Jr.,
BELLE SIMMS WEBSTER.