No. 772,913. PATENTED OCT. 25, 1904.

F. N. ASHWORTH.

CLASP.

APPLICATION FILED MAR. 26, 1904.

NO MODEL.

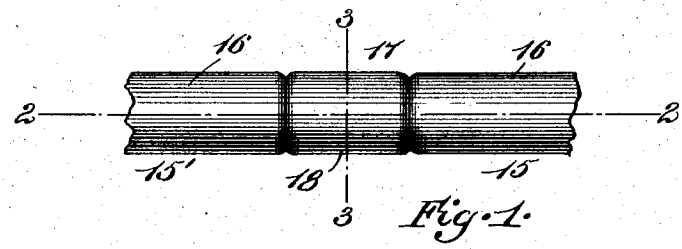


Fig. 1.

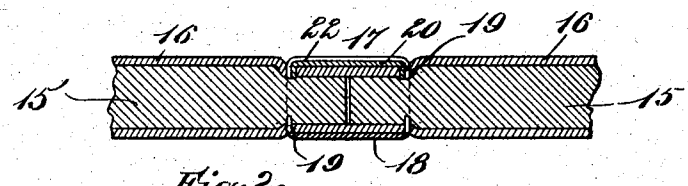


Fig. 2.

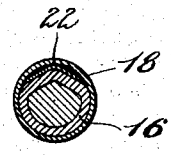


Fig. 3.

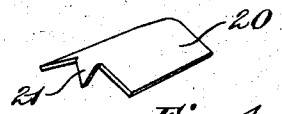


Fig. 4.

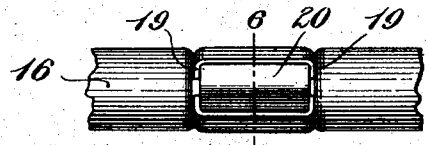


Fig. 5.

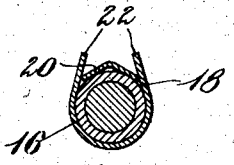


Fig. 6.

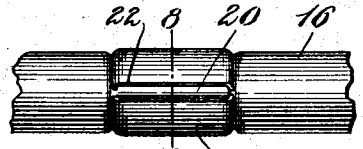


Fig. 7.

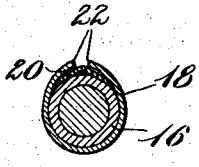


Fig. 8.



Fig. 9.

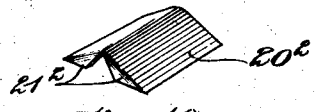


Fig. 10.

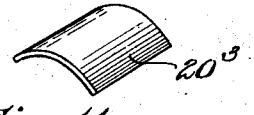


Fig. 11.

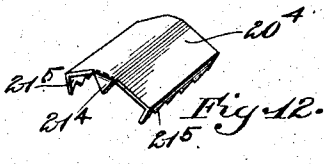


Fig. 12.

Witnesses:
Franklin E. Low
Annie J. Dailey

Inventor:
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by his Attorney
Charles S. Goodwin.

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No. 772,913. Patented October 25, 1904.

UNITED STATES PATENT OFFICE.

FRED N. ASHWORTH, OF SOMERVILLE, MASSACHUSETTS.

CLASP.

SPECIFICATION forming part of Letters Patent No. 772,913, dated October 25, 1904.

Application filed March 26, 1904. Serial No. 200,094. (No model.)

To all whom it may concern:

Be it known that I, FRED N. ASHWORTH, a citizen of the United States, residing at Somerville, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Clasps, of which the following is a specification.

This invention relates to an improved clasp for connecting together the ends of cords, and is especially adapted for connecting the ends of covered elastic cords such as are used in the manufacture of sleeve-supporters, elastic cords for cash-carriers, and the like.

The object of the invention is to provide a device which may be readily and conveniently applied to a cord so as to firmly join the two ends of said cord together without injury to the same and without possibility of any portion of said cord or its covering projecting between the meeting edges of said clasp.

The invention consists in a clasp of sheet material made in two parts—viz., an outer clamp, which is adapted to extend entirely around a cord, and an inner clamp, which extends only partly around said cord inside said outer clamp and across the meeting edges thereof, whereby said cord or the covering thereof is prevented from projecting between said meeting edges.

The invention again consists in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the claims thereof.

Referring to the drawings, Figure 1 is a side elevation of my improved clasp, showing the same connecting together two ends of a cord, the cord being broken away to save space in the drawings. Fig. 2 is a section taken on line 2 2 of Fig. 1. Fig. 3 is a transverse section taken on line 3 3 of Fig. 1. Fig. 4 is a perspective view of one form of inner clamp. Fig. 5 is a plan view of my improved clamp, showing the same as it appears when first attached to the ends of a cord and before it is clamped therearound. Fig. 6 is a transverse section taken on line 6 6 of Fig. 5. Fig. 7 is a view similar to Fig. 5, showing the clamp partly closed. Fig. 8 is a transverse section taken on line 8 8 of Fig. 7. Figs. 9, 10, 11, and 12 are perspective views of modified forms of inner clamp.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 15 and 15′ are two ends of a cord, which in the present instance is illustrated as having a covering 16.

My improved clasp 17 consists of an outer clamp 18, of sheet metal, provided with flanges 19 19 upon its opposite ends, said flanges being preferably corrugated or notched in order to enable them to firmly grasp the cord when said clamp is clamped thereto, as hereinafter described.

20 is an inner clamp formed of sheet metal and in its preferred form is **V**-shaped, as illustrated in Fig. 4, and provided at its opposite ends with a prong or prongs 21, which are adapted to project into said cord when the clamps are attached thereto.

In attaching a clamp to the two ends of a cord for the purpose of connecting them together, and especially in the case of elastic cords covered with a soft cotton or woolen material, if a clasp consisting only of a clamp similar to the outer clamp 18 is clamped around said cord it is very difficult and almost impossible to prevent said soft covering from being caught and cut between the meeting edges of said clamp, and for the purpose of overcoming this objection I provide the inner clamp 20.

In attaching my improved clamp to the two ends of a cord said ends are first placed in the outer clamp 18, as illustrated in Figs. 5 and 6, and the inner clamp 20 is then placed between and under the edges 22 22 of the clamp 18, as illustrated in Fig. 6. The edges 22 22 are then brought toward each other by compressing the outer clamp 18 around the cord, which can be done by a pressure of the finger and thumb, as said clamp is formed of light sheet metal, and as said edges are brought together the clamps and cord assume the positions illustrated in Figs. 7 and 8. As will be seen, the cord or its covering is prevented by the clamp 20 from projecting outwardly between the edges 22 of said outer clamp as said edges are being brought toward each

other. The outer clamp is finally compressed, by means of pincers or any suitable tool, until the edges 22 22 meet each other, and the inner clamp is pressed into the cord or its covering, as illustrated in Fig. 3, and extends across said meeting edges upon the inner face of the clamp 18.

It will be noted that when the outer clamp is being compressed so that the edges 22 shall meet each other the sides of the inner clamp 20 abut against the opposite inner faces of the outer clamp 18 between and beneath the edges 22 and the wedge shape of said inner clamp assists in forcing said inner clamp into the cord or covering thereof when the outer clamp is being compressed, as hereinbefore set forth.

The advantages secured by my improved clamp are, first, it is very cheap; second, it is easily applied; third, when so applied it makes a neat finish to the cord and prevents the cord from being injured, so that the life of the cord is very much prolonged, and, finally, the two clamps are secured to the cord in a single clamping operation, thus saving a great amount of labor and consequent expense in attaching the clamp to the cord.

It will be noted that the clasp hereinbefore described is applied to the cord without first stretching the cord, thus making it much easier to apply than is the case in clamps wherein it is necessary first to stretch the cord before applying the clamp thereto.

In Fig. 9 a modified form of inner clamp $20'$ is illustrated, in which instead of a single prong three prongs $21'$ are formed upon each end of the clamp. In Fig. 10 another modified form of inner clamp is illustrated, in which the base of the prongs 21^2 extends throughout the entire length of one side of the wedge-shaped inner clamp 20^2. In Fig. 11 another form of inner clamp is illustrated, consisting of a plate 20^3 curved in cross-section instead of V-shaped, as in the forms hereinbefore illustrated and described. In Fig. 12 still another modification of the inner clamp is illustrated, in which the plate 20^4 is preferably wedge-shaped and provided with prongs 21^4 at the ends and with prongs 21^5 along the opposite sides thereof. In the latter form of clamp when the outer clamp is compressed, as hereinbefore described, the prongs 21^4 are forced into the cord and also the prongs 21^5 21^5 upon opposite sides of said clamp. Thus it will be evident that the inner clamp acts as an assistant to the outer clamp in holding the two ends of the cord together.

While I have described the inner and outer clamps as being formed of sheet metal, I do not wish to be understood as limiting my invention to any particular material—as, for instance, the inner clamp may be made of cardboard without departing from the spirit of my invention.

While I have described and claimed my invention in combination with a cord, I do not wish to be understood as limiting myself to any particular shape or construction of cord. Said cord might evidently be round, oval, or flat in cross-section without departing from the spirit of my invention, and it is also evident that said cord might be made of different kinds of material without departing from the spirit of my invention.

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

1. The combination, with a cord, of a clasp for connecting together two ends of said cord comprising an inner and an outer clamp, said outer clamp extending entirely around said cord, said inner clamp extending only partly around said cord, inside said outer clamp and across the meeting edges thereof.

2. The combination, with a cord, of a clasp for connecting together two ends of said cord, comprising an inner and an outer clamp, said outer clamp extending entirely around said cord, said inner clamp extending only partly around said cord, inside said outer clamp, and across the meeting edges thereof, and provided upon its ends with prongs adapted to project into said cord.

3. The combination, with a cord, of a clasp for connecting together two ends of said cord, comprising an inner and an outer clamp, said outer clamp extending entirely around said cord, said inner clamp extending only partly around said cord, inside said outer clamp, and across the meeting edges thereof, and provided upon its ends and sides with prongs adapted to project into said cord.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRED N. ASHWORTH.

Witnesses:
CHARLES S. GOODING,
ANNIE J. DAILEY.