(No Model.)

L. B. MYERS.

TOY SLING.

No. 363,755. Patented May 24, 1887.

Fig. 1.

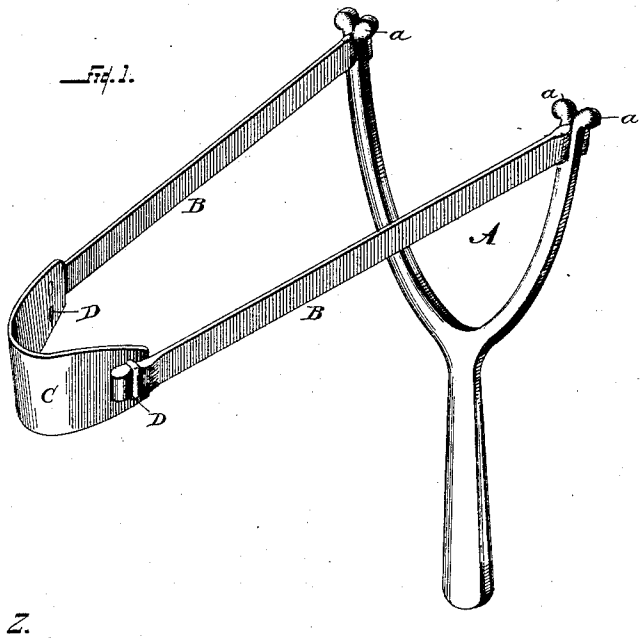


Fig. 2.

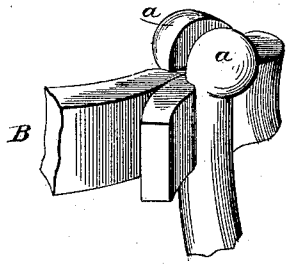


Fig. 3.

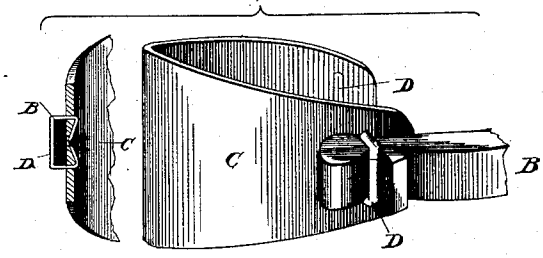


Fig. 4.

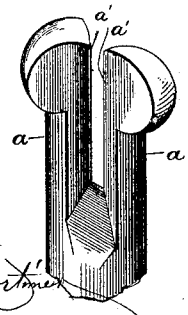
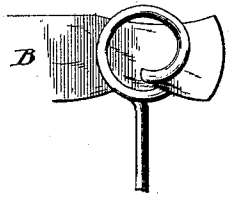


Fig. 5.



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UNITED STATES PATENT OFFICE.

LEWIS B. MYERS, OF FREMONT, OHIO.

TOY SLING.

SPECIFICATION forming part of Letters Patent No. 363,755, dated May 24, 1887.

Application filed April 13, 1886. Serial No. 198,725. (No model.)

To all whom it may concern:

Be it known that I, LEWIS B. MYERS, a citizen of the United States, residing at Fremont, in the county of Sandusky and State of Ohio, have invented certain new and useful Improvements in Toy Slings; and I 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.

This invention relates to catapults or slings of that class in which rubber bands of suitable size and strength are attached at one end to the arms or prongs of a crotch of any suitable substance, generally metal, and at the other end to a piece of leather, which forms a holder for the missile designed to be thrown. Heretofore slings of this kind have been defective in the attachment of the rubbers to the parts to which they are applicable, inasmuch as they have been liable to become worn or be cut there.

The object of the present invention is to produce a sling in which the rubbers are connected to the adjacent parts in such manner as to be held firmly in place, and at the same time be free from breaking or cutting at the fastening.

With these objects in view the invention consists in a sling having the rubbers attached to the crotch portion by slitting the arms or prongs thereof, or providing them with openings, the slits or openings being less in width than the thickness of the rubber band in the normal state, from which state it is changed and rendered thinner at its end by stretching to be introduced, and to which state it tends, at the part rendered thinner, again to return when relaxed, and so bulges out upon each side of the prong sufficiently to be held firmly in place, the ends of the rubber band in addition being thickened either by folding the material upon itself or by cementing separate pieces to it, or otherwise, for additional strength at the points of juncture at the prong and at the missile-holder.

Furthermore, the invention consists in a sling in which the thickened ends of the rubber are attached to the missile-holder by staples, which bind the rubber and the material of which the holder is composed together; and, finally, the invention consists in a sling-crotch of metal or other suitable substance having its arms provided with slits, the inner faces of which are apexiform.

The invention is illustrated in the accompanying drawings, in which like letters of reference indicate corresponding parts, and in which—

Figure 1 is a perspective view of a complete sling embodying my invention. Fig. 2 is a detail view showing one arm of the crotch and illustrating the manner of securing the rubber band in place. Fig. 3 is a detail view showing the manner of securing a rubber band to the missile-holder. Figs. 4 and 5 are detail views showing modifications of the means for securing the rubber to the prongs.

In the drawings, A represents the crotch, preferably of metal, and either cast or made up of wire bent into proper shape. When the crotch is cast, slits or openings are formed in the upper ends of the prongs, and into these are introduced the ends of the rubbers B. It is intended that the slits shall be so narrow that after the ends of the rubbers have been introduced into them by stretching them at the ends to make them thin enough there to be inserted, they shall be tightly held by friction and by the projection of the ends, where they are not compressed in the slits or openings, laterally beyond the faces of these slits or openings; but should the slits or openings be too wide, they may be partially closed by pressure, by bending, or by bringing the front edges of the slits nearer together than the rear edges.

Instead of having a plain slit for the retention of the rubbers, one may be formed, as shown in Fig. 4, in which the inner faces of the fingers *a*, formed upon the ends of the prongs by the slits, are provided with apexiform inner faces, *a'*, the apexes of the faces being such a distance apart as to permit the introduction of the ends of the rubber bands when stretched, and at the same time to retain the bands by frictional contact, preventing the ends from slipping through, when the stretching is discontinued and the bands are allowed at all parts to resume their thickness. This forms a very simple and reliable attachment for rubber bands, and is preferable in some instances to the plain slit, for the reason that no bending or other manipulation of the metal which might result in weakening thereof is ever requisite.

Instead of forming the prongs and fingers of the crotch of cast metal, these portions may be of wire. In this form the crotch of wire has its ends bent in such manner as to form openings of suitable size to admit the ends of the rubber when stretched, and at the same time to confine them suitably when the rubber has resumed its normal state, all as shown in Fig. 5.

The manner of attaching the rubber bands B to the missile-holder C is shown in Fig. 3. The attachment is made by staples D, the loops of which inclose the thickened ends of the rubber bands, the staple projecting through the inner face of the missile-holder and being bent down there. The ends of the staples are bent inward, as shown to the left of the figure, so that they may not be liable to be bent away from the inner face of the holder in the use of the same. It is particularly to be observed that the rubber bands do not surround the missle-holder, but are attached to each side thereof.

In many instances it is of great advantage to thicken the ends of the bands in any suitable way, as by bending the material upon itself by having the ends of greater transverse diameter than the other parts, or by attaching an additional piece or additional pieces by cement or otherwise. The ends, when thus thickened, will successfully withstand wear, and will last much longer than when made of the ordinary thickness when the rubber is thin.

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

1. In a toy sling, the crotch A, having prongs at the ends slitted and forming the fingers *a*, combined with rubber having thickened ends introduced into the slits in a stretched condition, and thus held without other fastening, substantially as described.

2. In a toy sling, a crotch having prongs slitted or with openings holding and retaining by friction the ends of rubber bands, in combination with a missile-holder fastened separately to each of two bands having thickened ends by a staple over the band within the thickened end, and clinched on the inner face of the missile-holder with the legs of the staple bent inward, substantially as shown and described.

3. A sling comprising a crotch of metal or other suitable substance, having its arms provided with slits, the inner face of the slitted portion being apexiform, and rubber bands confined in the slitted ends, substantially as described.

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

LEWIS B. MYERS.

Witnesses:
CHAS. L. SEWARD,
LEWIS B. MYERS.