(No Model.)

A. S. MANN.

CORD FASTENER.

No. 374,982. Patented Dec. 20, 1887.

Fig. 1.

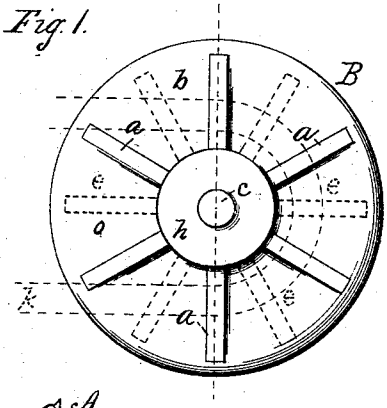
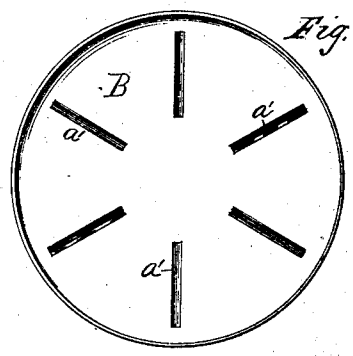


Fig. 2.



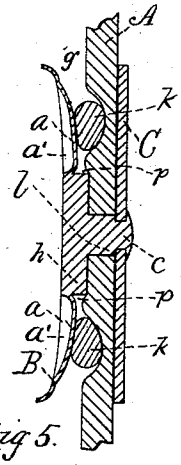


Fig 5.

Fig. 3.

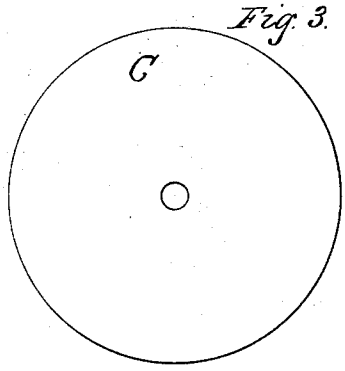


Fig. 4.

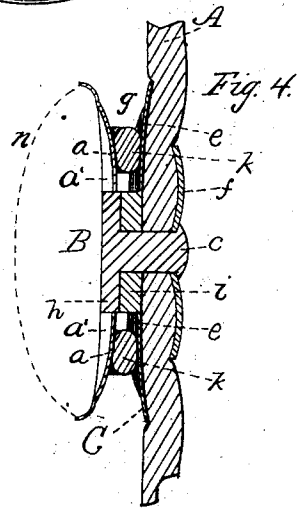
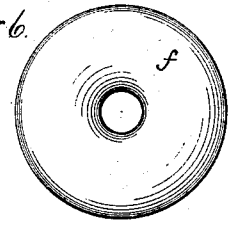


Fig. 6.



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UNITED STATES PATENT OFFICE.

ABRAM S. MANN, OF ROCHESTER, NEW YORK.

CORD-FASTENER.

SPECIFICATION forming part of Letters Patent No. 374,982, dated December 20, 1887.

Application filed September 22, 1887. Serial No. 250,395. (No model.)

To all whom it may concern:

Be it known that I, ABRAM S. MANN, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in a String or Cord Fastener, which improvement is fully set forth in the following specification, and shown in the accompanying drawings.

The object of my invention is to produce an improved string or cord fastener to be used more particularly in combination with cloth, the skin of animals, canvas, or other fibrous sheets, the invention being hereinafter fully described, and more particularly pointed out in the claims.

The device as it is shown in the drawings is designed more particularly to serve as a string or cord fastener for articles of wearing-apparel—for instance, that of a glove—the parts being drawn to an exaggerated scale to more exactly show their construction.

Referring to the drawings, Figure 1 is a plan of the ribbed face of one of the disks or principal parts of the device; Fig. 2, a plan of the reverse side of the same; Fig. 3, a plan of one of the disks or parts co-operating with the part shown in Figs. 1 and 2; Fig. 4, a diametrical section of the various parts of the device co-operating together, showing the cord or string held thereby; Fig. 5, a similar diametrical section of the device somewhat modified in construction, and Fig. 6 a plan of an outer plate employed in the construction shown in Fig. 4.

Referring to the parts shown in the drawings, A represents a portion of the fabric or skin of which the article of wearing-apparel is made.

B is the outer plate or disk of the device for fastening the string or cord, having its inner face, *b*, formed with ribs *a*, inclined or convex at their edges. This disk is formed with a hub, *h*, from which said ribs extend, preferably in a radial direction. From the hub *h* an axial pin, *c*, extends outward, as shown.

C is a second disk, of about the same diameter as the disk B, held concentrically and parallel with the latter upon the pin *c*. The disk C may be plain, as shown in Fig. 5, or formed with a hub, *i*, and ribs *e*, similar to those parts of the disk B, as shown in Fig. 4. In case the disk B is placed in contact with the fabric, as in Fig. 5, the plain disk C is placed upon the opposite side of the fabric, said fabric and disk C being pierced by the pin *c*, the end of the pin being riveted down against the disk, as shown.

In Fig. 4 both the disks B and C are shown on the same side of the fabric, the pin *c* extending through the fabric, as in the first instance, and through a plate, *f*, of smaller diameter than that of the disks, placed on the opposite side of the fabric. The plate *f* is preferably made curved, as shown, the end of the pin being riveted down upon it, as upon the disk C in the case before mentioned.

The pin *c* may be reduced in diameter at its end to a shoulder, *l*, as shown in Fig. 5, to receive the disk C or plate *f*, or it may be made of uniform diameter, as shown in Fig. 4, where it passes through said disk or plate, as a matter of judgment.

The web or plate *o* of the disk B may be plain or of other form; but I prefer to construct it convex on the side or face *b*, turned toward the fabric, as shown. The ribs *a*, being formed with inclined or convex edges, are nearer to the fabric, as shown in Fig. 5, at the ends near the hub than at their outer ends. On this account, as the string *k* is drawn in under said disk, it enters a space continually decreasing in width as it approaches the hub *h*, and is consequently wedged in or pinched more tightly as it is drawn down nearer the hub *h*. When the cord is thus drawn tightly under the disk, it beds or sinks into the elastic fabric, as shown, the latter being supported by the disk C, of equal diameter with the disk B on the other side. At its periphery the disk B is turned rapidly away from the fabric to form an open space, *g*, so that the string may be easily entered thereunder, and also to give the outer surface of the disk a hollowing form, or make it cupped shape to receive a filling of some kind, if desirable, said filling being represented by the dotted line *n* in Fig. 4. This filling may be some plastic material put to place and allowed to solidify, or it may be a stone or other setting held to place by cement.

The ribs are formed by depressing the sub-

stance of the disk, as shown at a', or they may be formed upon the face of the disk by other means.

In case they are formed by depressing the disk these depressions a' serve to receive and hold the filling of the disk or the cement for holding the setting above mentioned.

Where the disk C is formed with ribs e, the latter are alternated with the ribs a of the disk B, as indicated by dotted lines in Fig. 1, when the parts are put together. The string being drawn between the opposing inclined or convex edges of the opposing ribs is pinched and tightly held between them.

The ribs a may be formed with a crease, p, in their edges next to the hub h, as shown in Fig. 5, so that when the string is drawn firmly down against the periphery of the hub it will, in part, expand or spread to fill said creases, and thus effectually prevent it becoming released from the fastener, excepting when pulled out by the wearer.

What I claim as my invention is—

1. The herein-described device for fastening the end of the lacing or string of a shoe, glove, corset, or other article, consisting of a disk formed with a hub bearing against the cloth or leather of which said article is made, a pin projecting from said hub through said cloth or leather, formed with a shoulder at its free end, and a plate or disk secured to said pin against said shoulder on the under side of said cloth or leather.

2. In combination with a sheet of cloth or leather, a device for fastening the end of a string secured thereto, consisting of a disk formed with a hub and radial ribs convexed in radial planes, said hub bearing against said cloth or leather and formed with a pin projecting therefrom through said cloth or leather and shouldered at its free end, and a plate or disk on the opposite side of said cloth or leather held rigidly against the shoulder of said pin, substantially as shown.

3. In combination with a sheet of cloth, a device for fastening a string, consisting of a cupped or hollowed disk having cavities opening into the hollow of said disk, and further formed with a hub on the side opposite said hollow, an axial pin projecting therefrom and radial ribs convexed in radial planes, a similar opposing convexo-concave disk having a hub and convexed radial ribs, the hub of said latter disk being pierced to receive said pin, said cloth being pierced by said pin, and a plate secured at the end of said pin on the other side of said cloth, the respective convex sides of said disks being turned toward each other, substantially as and for the purpose set forth.

4. In combination with a sheet of cloth or leather, a device for fastening a string or cord secured thereto, consisting of a convexed disk, B, formed with a central hub bearing against said cloth or leather, a pin projecting from said hub through said cloth or leather, formed with a shoulder at its outer end, and a plate or disk, C, secured to said pin against said shoulder by said pin being headed down against said disk C, said disk B being further formed with a depression or crease, p, near the periphery of said hub, substantially as shown.

A. S. MANN.

Witnesses:
E. B. WHITMORE,
M. L. MCDERMOTT.