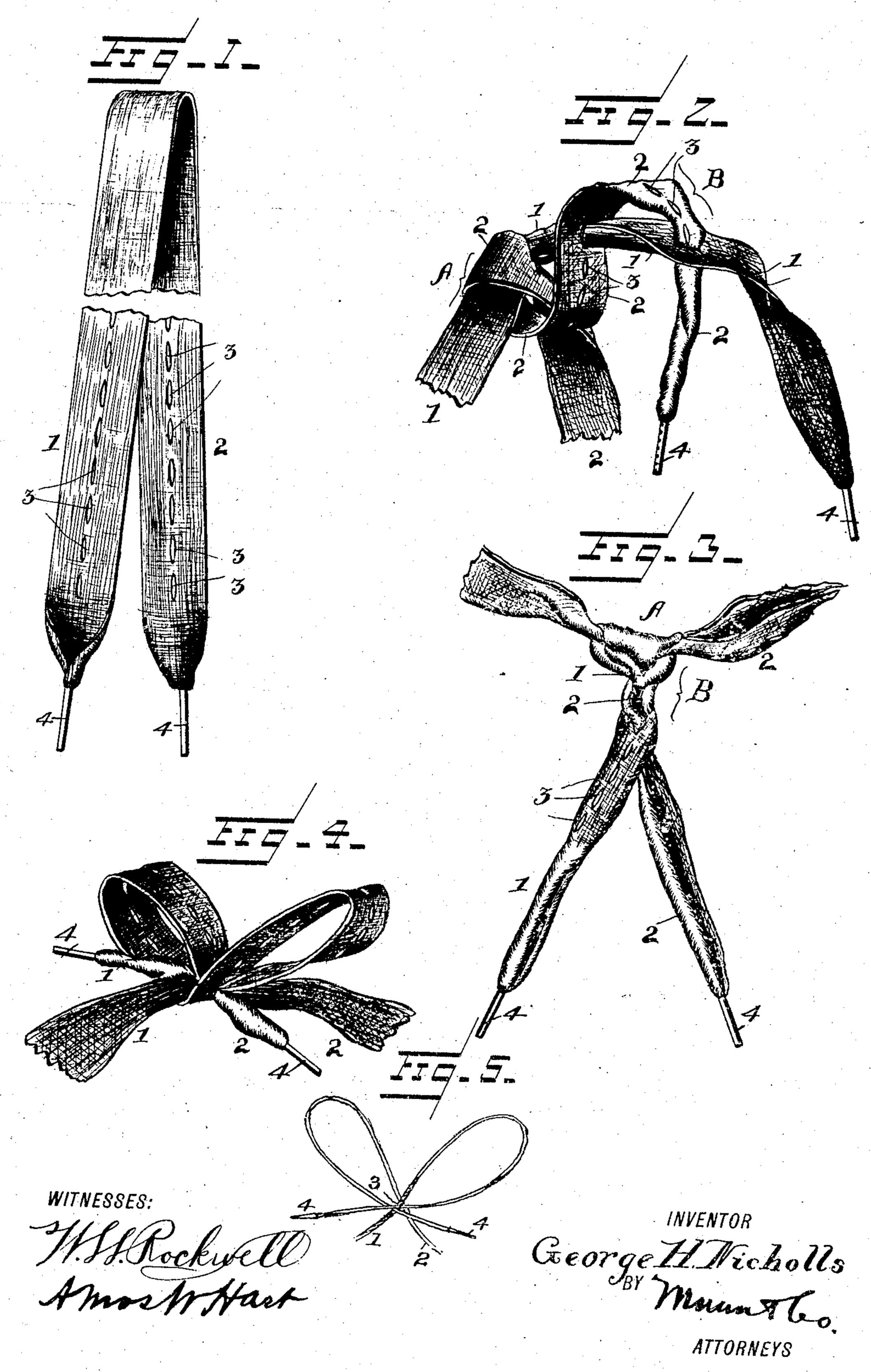
G. H. NICHOLLS.

SHOE LACE.

APPLICATION FILED OUT. 21, 1904.



## United States Patent Office.

## GEORGE H. NICHOLLS, OF GALVESTON, TEXAS.

## SHOE-LACE.

SPECIFICATION forming part of Letters Patent No. 780,377, dated January 17, 1905.

Application filed October 21, 1904. Serial No. 229,426.

To all whom it may concern:

Be it known that I, George H. Nicholls, a citizen of the United States, residing at Galveston, in the county of Galveston and State of Texas, have made certain new and useful Improvements in Shoe-Laces, of which the following is a gracification.

lowing is a specification.

It is the object of my invention to provide an improvement in shoe-laces, such as are ordinarily tied and fastened in bow-knots. Much annoyance is commonly experienced by the wearers of shoes provided with this form of lace by reason of the fact that the knots tend to become loose and untie in consequence of friction of the bows of the knots with the edges of skirts or trousers. I have devised a lace which may be quickly tied and so securely that it cannot be loosened accidentally.

The invention does not involve any change in the breadth, length, or form of the laces in ordinary use and adds but slightly to their cost and without appreciably diminishing their

strength and durability.

The details of construction of the lace and the manner of tying the same are as hereinafter described, and illustrated in the accom-

panying drawings, in which—

Figure 1 is a perspective view of the lace. Fig. 2 is a perspective view illustrating the tying of the lace to form a secure knot. Fig. 3 is a perspective view showing the knot fully formed. Fig 4 shows another arrangement of the ends of the lace for forming a bow-knot. Fig. 5 is a diagrammatic illustration of the position of the ends of the lace with reference to the bows shown in Fig. 4.

As shown in Fig. 1, my improved lace differs from those in ordinary use only in respect to the provision of a series of holes 3, which are formed in the end portions of the band and in close proximity to each other and in alinement with each other. It is practicable to form the holes 3 in various ways; but I prefer to produce them in the process of weaving the lace. They might also be formed by slitting or puncturing the lace and then overcasting the edges of the slits. They might also be formed by puncturing the lace and inserting small eyelets of due form and construction; but by my preferred plan the lace

loses nothing of flexibility, and the holes or slits do not attract attention.

In using my improved lace—that is to say, in producing a knot which cannot be accidentally loosened—I proceed as follows: It is 55 to be understood that the lace is passed. through eyeleted holes in a shoe in the usual manner, and if the shoe is provided with hooks it will be passed around them in the usual manner. The first step in fastening 60 the lace is to pass the bights or end portions of the same around each other as required to form what is termed a simple "overhand" knot A. (See Fig. 2.) The next step is to pass one of the ends (marked 1) through a 65 hole 3 in the other end, (marked 2,) and the third step consists in passing the end of such portion 2 through a hole or slit in the portion 1. The parts 1 2 are then pulled so as to draw the knot A tight and to bring the 7° parts 1 2 close together, as illustrated in Fig. 3. In this manner the knot is produced quickly and easily, and it is impossible for the same to become loosened and unfastened by friction with the clothing or from other 75 accidental cause. In other words, the knot will remain firm under all the conditions of use and can only be unfastened by manual manipulation—that is to say, by first withdrawing the end portion 2 from the end 1 and 80 then withdrawing the part 1 from the hole or slit in part 2. The lace does not draw or jam tight and may be quickly unfastened. In case it be desired to form a bow-knot the end portions 1 2 of the lace are adjusted as rep-85 resented in Figs. 4 and 5—that is to say, a simple overhand knot is first formed, as above described and as shown in Fig. 2. The end portions 1 2 are then extended in opposite directions to form bows, and next both ends 90 1 and 2 are passed through the same holes or slits in the two bows, it being understood that the holes or slits referred to are those adjacent to the knot formed and coincident with each other.

As shown in the drawings, the extremities

of the end portions 1 2 of the lace are pro-

vided with the usual form of tags or tips 4.

It is important that the inner ends of the tags

shall be smooth, so that they will not wear 100

•

•

the edges of the slits 3 in being passed through them.

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

As an improved article of manufacture the shoe-lace herein described, the same consisting of a band of suitable length and material

provided with a series of holes near its ends and with suitable tips applied to its extremi- 10 ties, as described.

GEORGE H. NICHOLLS.

Witnesses:
EMIL EGGERS,

WM. WILEY.