

No. 641,282.

Patented Jan. 16, 1900.

W. O. ELLIOTT.
STRING FASTENING DEVICE.

(Application filed Aug. 8, 1899.)

(No Model.)

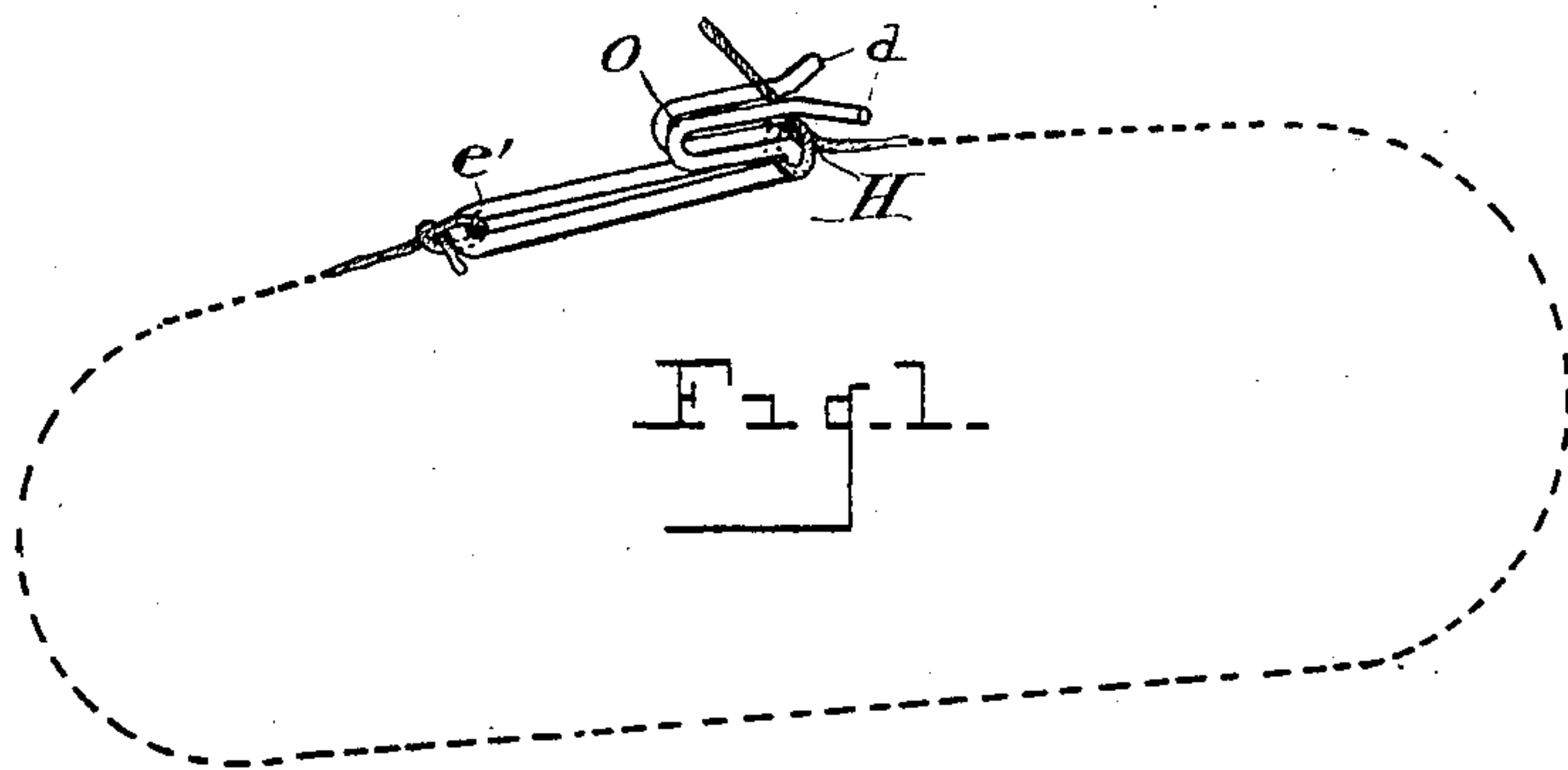


Fig. 2.

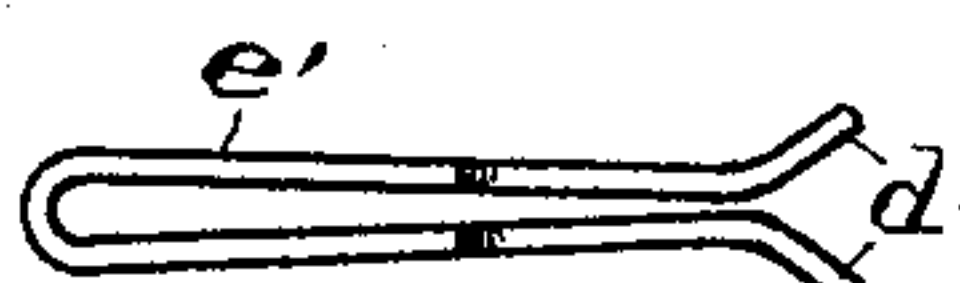


Fig. 3.



Fig. 4.



Fig. 5.

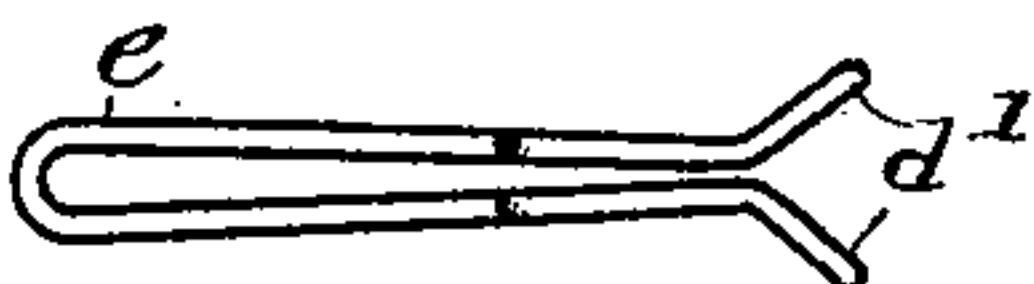


Fig. 6.

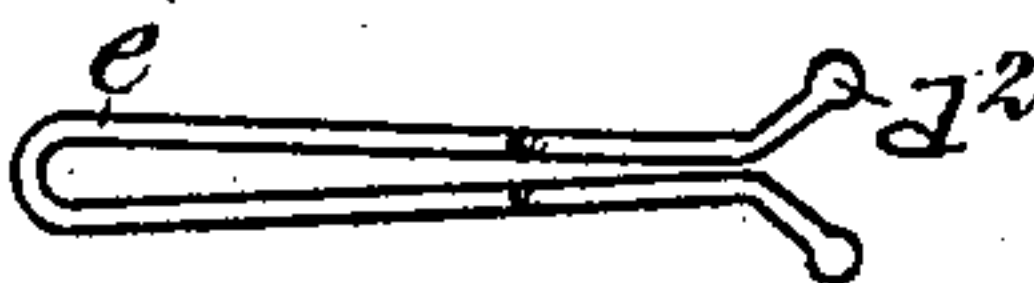


Fig. 7.

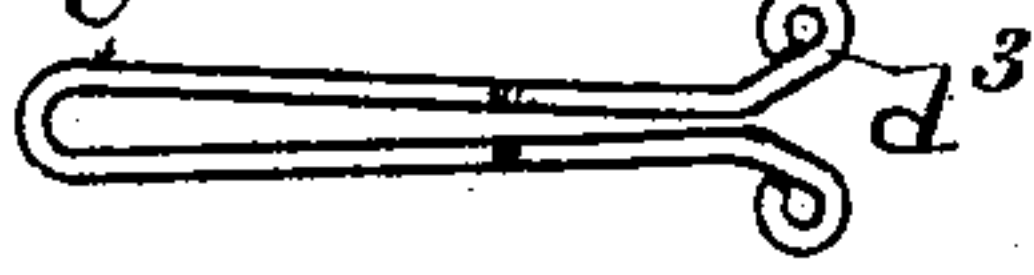


Fig. 8.



Fig. 9.



Fig. 11.

WITNESSES.

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STRING-FASTENING DEVICE.

SPECIFICATION forming part of Letters Patent No. 641,282, dated January 16, 1900.

Application filed August 8, 1899. Serial No. 726,609. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM O. ELLIOTT, a citizen of the United States, and a resident of Wauseon, in the county of Fulton and State of Ohio, have invented a new and useful String-Fastening Device, of which the following is a specification.

My invention relates to the class of string-fastening devices or ties formed of stout wire and largely used in binding shocks of corn and bundles of corn-fodder, and is designed to possess the qualities of low cost and of great convenience and rapidity of both tying and untying and in the case of bundles of fodder not to be liable to come untied in handling. I attain these objects in the manner described herein and illustrated by means of the drawings accompanying this specification.

Figure 1 shows my improved string-fastening device in perspective arranged to show clearly one method of placing the string therein and fastening the same. Fig. 2 shows a top plan view of Fig. 1. Fig. 3 is a side plan view of Fig. 1. Fig. 4 shows a modification by forming an offset *a* in the shank of the tie, making a larger opening for the admission of the string. Fig. 5 shows a modification by rounding the ends of the forks to prevent injury to the hands in using the tie or in handling the tied bundles. Fig. 6 shows a modification by enlarging and rounding the ends of the forks for the same purpose. Fig. 7 shows another modification to accomplish the same result by forming an eye in the forked ends. Fig. 8 shows the forked ends bent flat upon themselves, forming a rounded end for the same purpose and an eye instead of the long loop in the shank. Fig. 9 shows a section of wire of suitable size and having the ends bent to form the forks *d*. Fig. 10 illustrates the fastener bent at its middle.

The construction of the fastener in its completed form is illustrated in Figs. 1 and 3 and is ordinarily made by the wire being bent at O H in a plane substantially at right angles to the plane of the loop *e*.

The looped shank *e* is for the purpose of receiving one end of the twine, which is fastened thereto in any convenient manner, and providing a convenient hold for the thumb and finger while using the fastener.

The bends or folds O H, Figs. 3 and 4, provide the tie or fastening element in the device, as more clearly illustrated in perspective in Fig. 1.

There are various methods by which the string may be secured in the folds of the fastener; but where there is a proper relation between the size of the string and the space in the folds, so that the twine is considerably compressed on being drawn into the folds, Fig. 1 shows my preferred method of tying the string.

From the drawings the construction of my device will be obvious. A section of stiff wire of suitable length is doubled at its middle, so that the two arms lie in parallel or substantially parallel relation. The two arms thus formed are bent back upon themselves side by side. The two arms are again bent forward upon themselves side by side away from the bend first mentioned. The two extremities of the arms project beyond the second bend and should be bent outwardly away from each other to form a crotch or fork. The projecting extremities of the fork may be given any desired finish in order that the wire may not scratch the hands of the user.

The operation of my device is as follows: One end of the string to be used in conjunction with the fastener is tied to the bight of the wire, as shown at *e'*, Fig. 1. The article to be tied or secured is encircled one or more times with the cord, which is drawn taut and pulled into the contracted space formed by the bend nearest the bight first mentioned. The cord on two opposite sides is now embraced by both arms of the fastener. The cord where it emerges from between the folds of the bend into which it has been pressed is doubled back upon itself and is carried in between the projecting prongs or forks of the extremities of the wire composing the fastener. These extremities, lying side by side, form a spring which clasps the string. Now any pull upon the cord between its points of engagement with the fastener will cause the two arms of the fastener to spring toward each other and to more securely clamp the extremity of the cord between the two extremities of the fastener. Thus the greater the stress upon the cord the more tightly it

is held against escape. To disengage the free end of the cord from the fastener, it is only necessary to reverse the operation above described—that is, to pull the free end of the
5 cord out from the fork and then by a half-turn to unwind the cord from the bend through which it passes.

Having now described my improvement, what I claim, and desire to secure by Letters
10 Patent, is—

1. An improved string-fastening device comprising a section of wire bent to form a shank or loop *e*, the return bends *O*, *H*, and the outwardly-flaring free ends or forks *d*,
15 substantially as described.

2. In a string-fastening device, a section of wire doubled at its middle to form substantially parallel spring-arms, flaring extremities for the two arms thus formed constituting a fork or crotch for the reception of a string, 20 and a loop or bend in said two arms adapted to receive a string, the arrangement being such that said two arms may be caused to swing toward each other by tension upon a string disposed in said bend and in said fork 25 or crotch.

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Witnesses:

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