

(No Model.)

W. SMITH.
SPRING COTTER.

No. 500,162.

Patented June 27, 1893.

Fig. 1

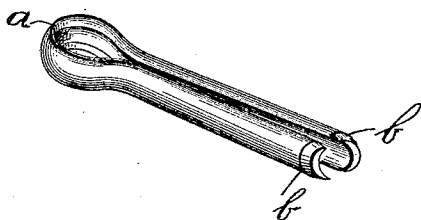


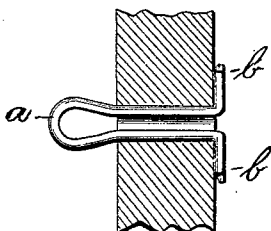
Fig. 2.



Fig. 3.



Fig. 4.



Witnesses:

Benj. W. Shaw
Thomas Shaw

Inventor:

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UNITED STATES PATENT OFFICE.

WALTER SMITH, OF SHARON HILL, PENNSYLVANIA.

SPRING-COTTER.

SPECIFICATION forming part of Letters Patent No. 500,162, dated June 27, 1893.

Application filed July 16, 1892. Serial No. 440,292. (No model.)

To all whom it may concern:

Be it known that I, WALTER SMITH, a citizen of the United States, residing at Sharon Hill, in the county of Delaware and State of Pennsylvania, have invented a new and useful Improvement in Spring-Cotters, of which the following is a specification.

The object of this invention is to save a part of the material used in manufacturing spring cotters and at the same time make a spring cotter that can be more easily spread apart at the ends after it is in the hole.

Spring cotters are at present usually made from half-round wire, or wire having a semi-circular section, and my invention consists in forming them from wire or sheet metal whose surface is convex on one side, and concave on the other, as shown in the accompanying drawings, in which—

Figure 1 represents a perspective view of a completed spring cotter made from such wire or sheet metal. Fig. 2 represents a sectional view of a spring cotter whose inner surface is curved. Fig. 3 represents a sectional view of a spring cotter whose inner surface is V-shaped; and Fig. 4 represents a spring cotter inserted in the hole adapted to receive it, and with its ends spread apart or clinched, to hold it in position.

"a" is the head or loop of the spring cotter

and "b" "b" are the ends, which are straight in Fig. 1, and bent over or clinched, in Fig. 4.

The particular shape of the wire or sheet metal used in my invention is not material, except that the outer surface shall be convex and the inner surface shall be concave. The convexity of the outer surface and the concavity of the inner surface may be either curved, V-shaped, or any other convenient shape; and may be produced either by means of rolls, or by stamping, or by any other appropriate process.

After the cotter is inserted in the hole it is necessary to spread the ends apart to keep it from coming out. On the old style spring cotter this is usually done with a cold chisel and hammer. With this style cotter it can be done with a single instrument and much quicker. Any sharp pointed instrument can be inserted in the groove or hollow center of the end of the cotter and pull the ends apart.

What I claim as my invention, and desire to secure by Letters Patent, is—

A bent spring cotter the material composing which is concave on the inner side and convex on the outer, substantially as described.

WALTER SMITH.

Witnesses:

THEO. H. MCCALLA,
E. HOWARD BURKE.