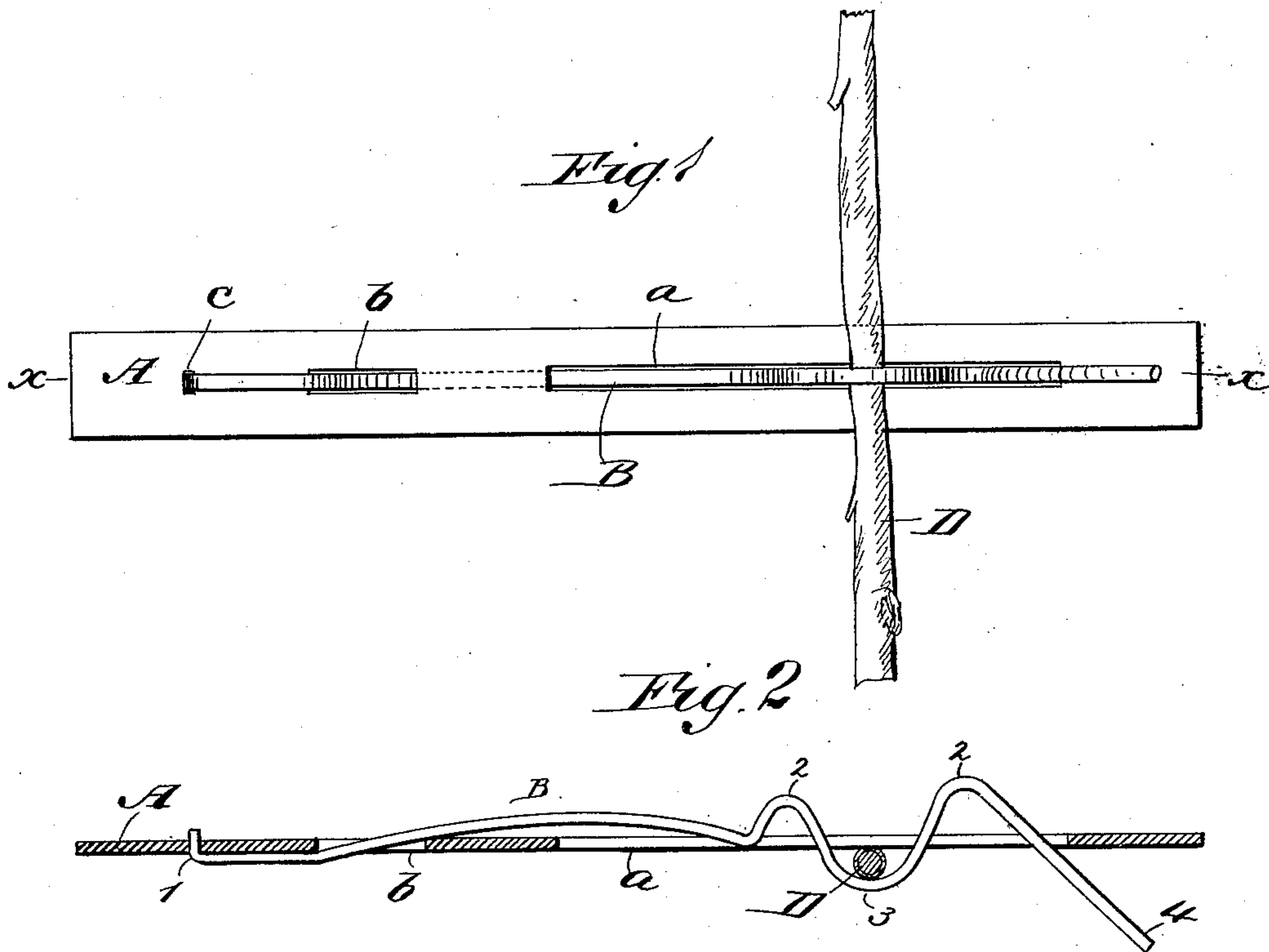


(No Model.)

J. STANGL.
VINE SECURING DEVICE.

No. 437,056.

Patented Sept. 23, 1890.



WITNESSES:

H. M. Andle
C. Sedgwick

INVENTOR:

J. Stangl
BY *Munn & Co*
ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN STANGL, OF HARLEM, MISSOURI.

VINE-SECURING DEVICE.

SPECIFICATION forming part of Letters Patent No. 437,056, dated September 23, 1890.

Application filed January 29, 1890. Serial No. 338,460. (No model.)

To all whom it may concern:

Be it known that I, JOHN STANGL, of Harlem, in the county of Clay and State of Missouri, have invented a new and Improved Vine-Securing Device, of which the following is a full, clear, and exact description.

My invention consists of a spring-holder for vines, and is an improvement on the device patented by me August 23, 1887, No. 368,790.

The object of my invention is to provide means for securely holding a vine upon a trellis or other object, and that will hold a vine in such a manner that the tendrils will not indiscriminately clasp the support as they do an ordinary wire trellis, so that the vine may be easily removed from the holder at the approach of winter.

To this end my invention consists in a slotted hoop or band with a spring projecting through the slots in such a manner that the vine will be held between the spring and the hoop or band. This construction will be hereinafter fully described, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters and numerals of reference indicate corresponding parts in both figures.

Figure 1 is a plan view of the device with a vine supported therein, and Fig. 2 a longitudinal section of the same on the line $x x$ of Fig. 1.

The band A may be made of any desired length and of a suitable width, and is made, preferably, of sheet metal, as it can be cut therefrom very cheaply. It may be attached to the side of some flat object, may be curved around a column, or may be bent into any desired shape, and it is provided at frequent intervals with a spring B, which works in longitudinal slots in the band, as described below. At the points in the band A where the spring B is attached the band is provided with a long slot a , through which the main portion of the spring B works, with a shorter slot b , through which the spring passes, and with a perforation c , in which one end of the spring is confined. The spring B may be made of any suitable material, (metal preferred,) and is attached to the band A in such a manner

that it may move in the slot a thereof and may be easily removed from or inserted in the band. The spring B is bent sharply at one end at the point 1, which bent end is inserted in the perforation c . It then extends along the band A and is curved to extend through the slot b of the band. It is then bent into two elbows 2 2, forming between them a depending groove or socket 3 to receive the vine D, and the free end 4 passes through the slot a of the band A and bears against one edge thereof. The elbows 2 2 will thus be upon one side of the band and the socket 3 upon the other. The tendency of the spring, bearing as it does upon the band A between the slots a and b , is to force the socket 3 through the slot a , so that it will be upon the same side as the elbows 2 2; but this is prevented by the free end 4 of the spring striking the band at the end of the slot a .

In practice a series of bands A are attached to suitable supports, and a vine D is introduced into the socket 3 between the socket and the band A by forcing the elbows 2 through the slot a , so that they and the socket 3 will be upon the same side of the band. The vine is then placed in the socket, and the spring B, upon being released, will force the elbows 2 2 back through the slot a , and the vine will be held securely in place in the socket. To remove the spring B from the band A, the bent end 1 is forced from the perforation c of the band, and the spring is then drawn through the slot b .

From the foregoing description it will be seen that a vine may be very easily inserted or removed from the vine-holder, and the flexibility of the spring B will allow the vine confined thereby to grow and expand without injury.

I find the spring B, as shown and described, to be a very convenient form; but it is obvious that the form of the spring may be greatly modified or changed without changing the nature of the invention.

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

1. A vine-securing device comprising a longitudinally-slotted band or hoop, and a spring having one end secured to the band or hoop

and formed with a bend or socket projecting through the slot of the band or hoop and adapted to receive a vine and clasp it to the band or hoop, substantially as described.

5 2. The combination, with a slotted and apertured band, of a spring having one end secured in the aperture and its free end formed with a bend or socket for receiving a vine and projecting through the slot of the band, the
10 free end of the spring engaging the end of the slot to prevent its withdrawal therefrom, substantially as described.

3. The combination, with a band A, having slots *a b* and perforations *c* therein, of the

spring B, having bent end 1 to engage the 15 perforation *c* of the band A, a curved portion extending through the slot *b* thereof, and elbows 2, extending through a slot *a* in the band, a socket 3, formed between the elbows 2 and adapted to hold a vine therein, and an elongated end 4, adapted to engage the band A at 20 the end of the slot *a* and hold the spring B in position therein, substantially as described.

JOHN STANGL.

Witnesses:

THOMAS DAVIN,
WILLIAM PRIGEL.