

(No Model.)

J. STANGL.
VINE SECURING DEVICE.

No. 368,790.

Patented Aug. 23, 1887.

Fig. 1.

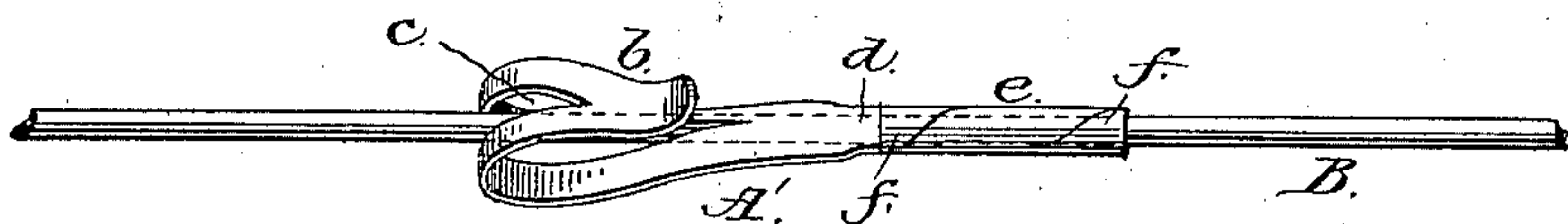


Fig. 2.



Fig. 3.

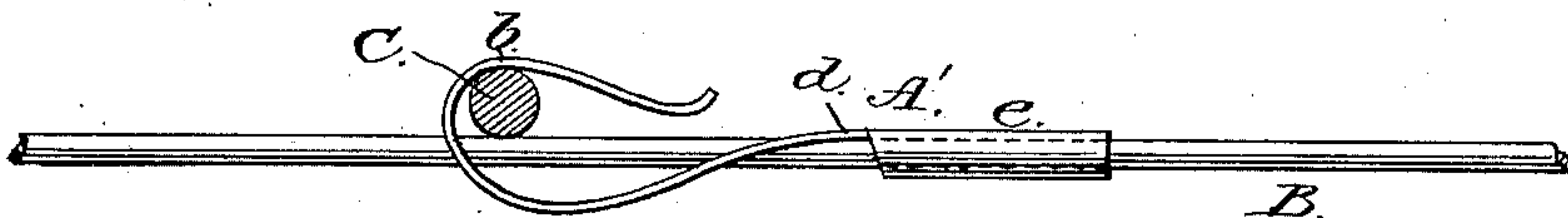


Fig. 4.

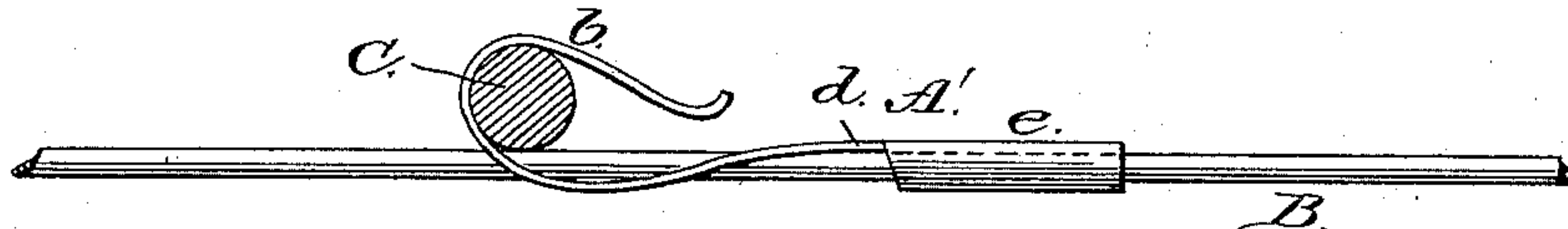
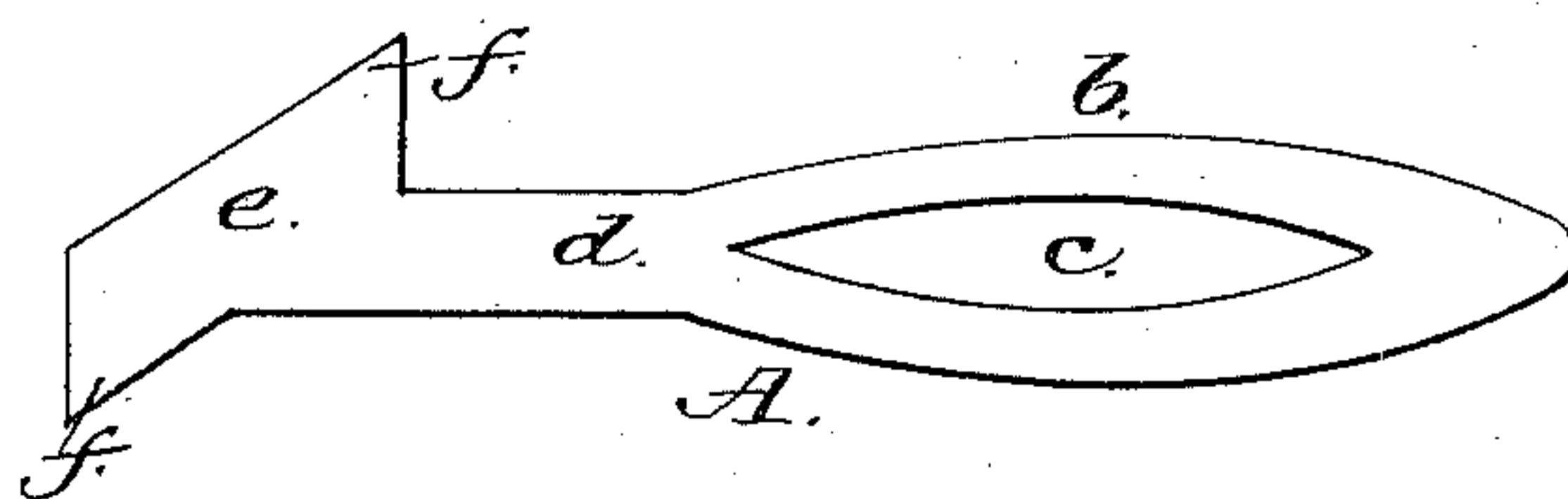


Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN STANGL, OF HARLEM, MISSOURI.

VINE-SECURING DEVICE.

SPECIFICATION forming part of Letters Patent No. 368,790, dated August 23, 1887.

Application filed January 12, 1887. Serial No. 224,130. (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 useful Improvement in Vine-Securing Devices, of which the following is a full, clear, and exact description.

This invention consists in a spring holder for securing vines to their wires or supports, substantially as hereinafter described, and pointed out in the claims, and whereby the tying of the vine by string is dispensed with.

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

Figure 1 is a view in perspective of my newly-invented vine-spring or elastic holder applied to a vine-supporting wire; and Figs. 2, 3, and 4 show side views of the same with the vine-spring at different stages of its self-adaptability to the vine during the growth thereof, the vine being shown in section. Fig. 5 is a flat view of the blank from which the vine-spring is made.

The device, which is designed to be used in vineyards and elsewhere, is cut or stamped from sheet metal having more or less spring into a flat blank, A, (shown in Fig. 5,) and made to present an elongated widened end portion, *b*, having a longitudinal slot or opening, *c*, through it, and preferably of approximately oval or curved shape in direction of its length, an intermediate shank portion, *d*, and a crossing opposite end portion, *e*, shaped to form flat angular lips *f f* on reverse sides of the blank. To apply this blank to a wire, B, used to support the vine, it is bent into clip or hook shape at its end portion, *b*, to receive the wire B through its opening *c*, or slotted hook, and its crossing opposite end portion, *e*, and lips *f f* are twisted or bent around the wire to form a closely-fitting tube or tubular clip, as shown in Fig. 1. This forms the complete vine-spring or yielding holder A' as made from the blank A.

The vine, C, to be secured or supported is introduced between the wire and the tongue of the hook, formed by bending over backward the portion *b*, said tongue gently bearing with an elastic pressure upon the vine, as shown in Fig. 2, and as the vine grows and increases in

thickness the tongue yields, as shown in Figs. 3 and 4, to adapt the spring holder to the growth of the vine. By the use of these vine-springs a large amount of labor will be saved as compared with the ordinary method of tying the vines by strings. Furthermore, strings, if not tied tight, allow the vines to slide on the wire, whereas the spring holder is permanent and securely holds the vine. Strings, too, if tied tightly, will often cut the vine as it grows; but my vine-spring will yield to the growth, and, being wide and flat, it cannot cut the vine. Likewise, strings are liable to rot, break, and allow the vines to fall when fruit-bearing, which causes a great loss of fruit, whereas my vine-spring will be strong enough to hold more than the weight of the fruited vines. Again, in spring-time it is not advisable to tie up the vines until after the last frost. The temperature of the weather then increasing causes the young sprouts to grow rapidly. Many of these young sprouts are broken in tying with string, the vine-tender usually trying to hold the vine to place and tie it at the same time. By the use of my vine-holding springs the vine can be taken in the two hands and be secured by the one manipulation; also, when working in vineyards, the use of my vine-springs will greatly reduce the number of hands necessary to do the work, and the work can be done in a few hours, while under the ordinary method of tying it would take several days, during each of which the vines, from the increasing young growth, become more susceptible to injury. My spring holders, too, provide for the vines being quickly removed during the autumn.

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

1. The combination, with the wire, of the longitudinally-extending hook-shaped holder crossing the wire at its bend, the free end of the hook being curved outward and resting on or adjacent to the wire, whereby a vine or branch may be passed under said curved end and be held between the holder and the wire, substantially as set forth.

2. The holder herein shown and described, comprising the shank *d*, having the longitudinally-extending hook, as at *b*, provided with

the wire-receiving opening *c* and the attaching-clip, substantially as set forth.

3. The blank A, composed of a flat piece of spring metal, having an elongated widened
5 end portion, *b*, provided with a longitudinal slot or opening, *c*, a shank portion, *d*, and a crossing opposite end portion, *e*, having flat

angular lips *ff* on reverse sides of the blank, substantially as and for the purposes herein set forth.

JOHN STANGL.

Witnesses:

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