

(No Model.)

W. H. MILLS.
GRAPE VINE CLAMP.

No. 475,589.

Patented May 24, 1892.

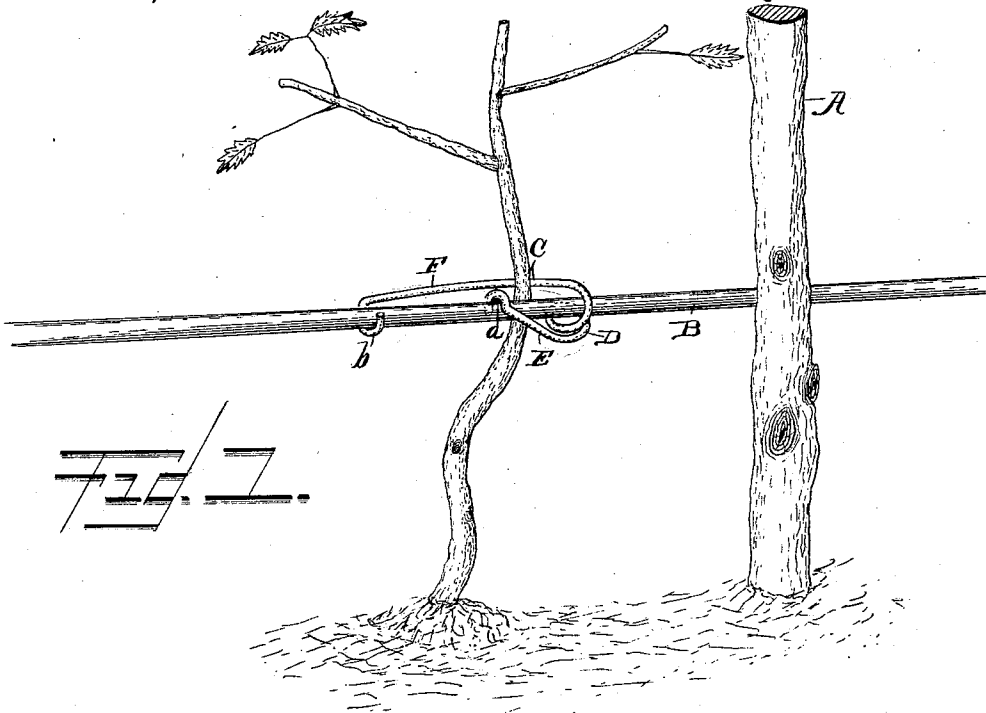
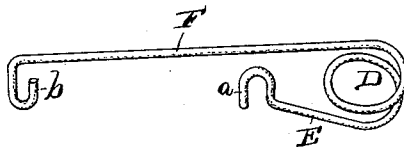


FIG. 1.

FIG. 2.



WITNESSES

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WILLIAM H. MILLS, OF PORTLAND, NEW YORK.

GRAPE-VINE CLAMP.

SPECIFICATION forming part of Letters Patent No. 475,589, dated May 24, 1892.

Application filed May 4, 1891. Serial No. 391,500. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. MILLS, of Portland, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Grape-Vine Clamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to improvements in clamps or keepers for training grape-vines and other plants; and it has for its objects, first, to provide such a clamp embodying a construction that will admit of its ready placement upon or removal from a trellis-wire, and, second, to provide a clamp of such construction that it will yield to the expanding growth of the vine, and thus not injure the same.

To the attainment of the foregoing and other ends the invention consists in the peculiar construction, novel combination, and adaptation of parts hereinafter described, and particularly pointed out in the claim appended.

In the accompanying drawings, Figure 1 is a perspective view of a portion of a trellis, showing my improved clamp in operation; and Fig. 2 is a perspective view of the clamp removed.

Referring by letter to the said drawings, A indicates one of the supporting-uprights of a grape-vine or other trellis, which may be of the ordinary or any approved construction, and B indicates a horizontal trellis-wire.

C indicates my improved clamp or keeper, which is formed from a single piece of spring-wire, and is preferably of the proportional size illustrated. This clamp or keeper C comprises a coil-body D and a short arm E and a long arm F, which merge into the coil-body.

As better illustrated in Fig. 2 of the drawings, the short arm E is provided at its free end with an upwardly and downwardly bent hook *a*, which is disposed approximately at right angles thereto, and is designed to engage the trellis-wire B, while the long arm F is provided with a downwardly and upwardly

bent hook *b*, which is disposed approximately at right angles thereto, and is also designed to engage the trellis-wire B and serve in conjunction with the hook *a* and the coil-body D to hold the clamp or keeper securely in position thereon.

In placing the clamp or keeper C in operation it is so arranged with respect to the wire B that the hook *a* of the short arm E will rest upon said wire and a portion of the lower convolution of the coil-body D will rest beneath the wire, while the long arm F will extend across and above the same. The vine to be trained or supported is then brought between the arm F and the trellis-wire, when the free end of said arm is brought to the trellis-wire and the hook *b* thereof hooked under said wire. Thus it will be perceived that the vine is held between the long arm F of the clamp or keeper and the trellis-wire, and by reason of the resiliency of the said arm it will be readily perceived that it will in no manner injure or retard the growth of the vine. As the free end of the arm F is brought toward the trellis-wire the convolutions of the coiled body D will be spread apart by the trellis-wire and caused to bind upon the same, whereby it will be perceived that the hook *a* of the short arm E will be securely held in engagement with said trellis-wire, as will also the hook *b* of the arm F when it is hooked beneath the same.

From the foregoing description, when taken in conjunction with the annexed drawings, it will be readily perceived that I have provided a clamp or keeper that may be very quickly applied to a trellis-wire and when so applied will not be liable to casual disconnection or displacement.

While my improved clamp is especially designed for the training and supporting of grape-vines, it may be employed for securing hedge-plants to the training fence or trellis and for securing other vines, trees, or bushes to supporting wires or rods.

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

As an improved article of manufacture, the

grape-vine clamp or keeper formed from
spring-wire and consisting, essentially, of the
coiled body D, the short arm E, merging into
said body and having the approximately
5 right-angular upwardly and downwardly
bent hook at its free end, and the long arm
F, merging into the coiled body D and hav-
ing the approximately right-angular down-
wardly and upwardly bent hook at its free

end, substantially as and for the purpose de- 10
scribed.

In testimony whereof I have affixed my sig-
nature in presence of two witnesses.

W. H. MILLS.

Witnesses:

J. H. WARD,

S. WING.