

E. F. UNDERHILL.

Vine Lock.

No. 84,519.

Patented Dec. 1, 1868.

Fig. 1.

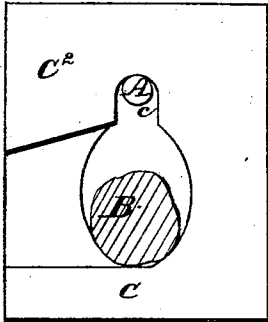


Fig. 2.

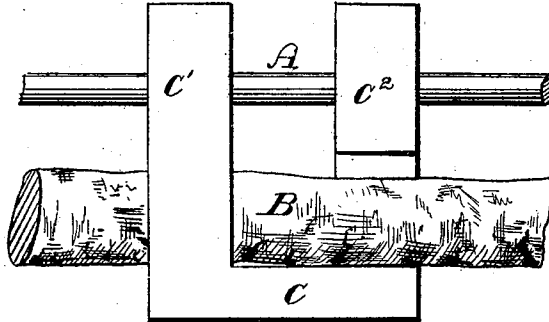


Fig. 3.

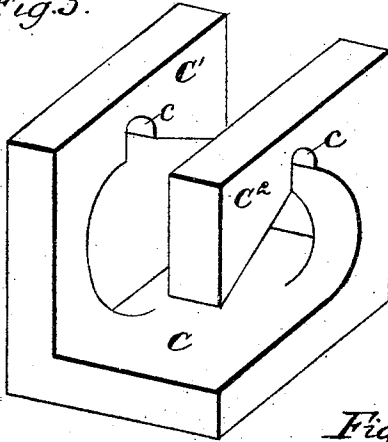


Fig. 4.

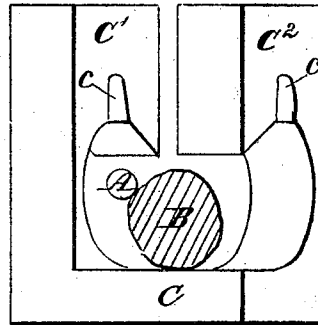
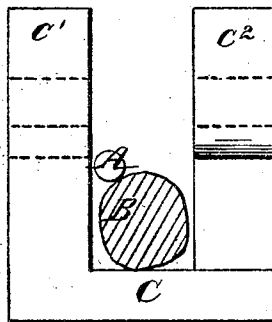


Fig. 5.



Witnesses.
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United States Patent Office.

EDWARD F. UNDERHILL, OF NEW YORK, N. Y.

Letters Patent No. 84,519, dated December 1, 1868.

IMPROVEMENT IN DEVICE FOR ATTACHING VINES TO TRELLISES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, EDWARD F. UNDERHILL, of the city and county of New York, State of New York, have invented a certain new and improved Device for Attaching Vines to Trellises, which I denominate "A Vine-Lock;" and I do hereby declare that the following is a full and exact description thereof.

I will proceed to describe what I consider the best means of carrying out my invention.

The accompanying drawings form a part of this specification.

Figure 1 is an end view of my device, as hung upon the wire of a trellis, and supporting a horizontal branch;

Figure 2 is a side view of the same;

Figure 3 is a perspective view, representing the device disconnected; while

Figures 4 and 5 represent the device in the act of being attached to or detached from the trellis.

Similar letters of reference indicate like parts in all the figures.

Referring to the drawings—

A is a stout iron wire, extended between posts not represented, and

B is a horizontal branch of a grape-vine, which it is desired to train thereto.

C¹, &c., is my vine-lock. It may be made of hard wood, and may be shaped by hand or by machinery from a solid piece of proper size.

C is the base or bottom, and

C¹ C² are similar arms or hooks, extending upwards from each side at a sufficient distance apart to receive freely between them any vine which it may be required to train. These hooks are formed so as to stand in positions the reverse, the one to the other; that is to say, when the hook on the right is presented with its opening toward the eye, the hook on the left is turned from the eye of the observer. The hooks are bevelled, as represented, and have a small recess, *c*, in each, to receive the wire A, from which it depends, and allow the vine ample room to remain suspended freely near to but not pressed against the wire when the lock is turned quarter around so as to secure the vine.

To attach the device the vine B is pressed, by the thumb and finger of the left hand, into close contact with the wire A, by which it is to be supported, and my vine-lock is held in the right hand and pressed up from below, so as to receive the vine B and the wire A between the hooks, as represented in fig. 5. While thus embracing these parts, the lock is turned in the position shown in fig. 4, and the movement is continued until it is turned a quarter of a complete revolution. In this position the vine B and wire A are liberated by the left hand, and the gravity and elasticity of the parts cause them to immediately separate to the extent allowed by the vine-lock, as indicated in fig. 1. They may remain in this condition a year, or as long as may be required.

It will be observed that the bearing thus provided

to support the vine, extends the whole length of the vine-lock. It is ample for all circumstances, and avoids any danger of cutting into or abrading the vine.

My vine-lock may be applied with less labor and with less time than the strings ordinarily employed, and the labor thus saved is of very great importance. Another advantage, of equal or greater consequence, is due to the fact that the device may be applied with hands encumbered by gloves, thus enabling the work to be performed and continued with comfort under circumstances of extreme cold and wet, which would otherwise cause great inconvenience, or completely prevent the proper and rapid performance of the work.

I have represented my lock as applied to a horizontal shoot. It may be applied also to inclined or to upright shoots, and the form may, in such case, be modified to accommodate it to the different conditions.

Although I prefer wood as a material, on account of its cheapness, lightness, and little liability to corrosion, &c., it is practicable to produce my improved vine-lock of metal, hard rubber, horn, or even raw hide, bone, and a great variety of other material. It may be practicable to mould or otherwise produce it from *papier-maché* saturated with oil or analogous material, or from sawdust moulded with any suitable adhesive material which will endure the weather. It may, under some circumstances, be expedient to press or otherwise mould it in clay, glass, or analogous material, or to form the device with the hooks C¹ C² of galvanized-iron wire, with the base, C, broadened by the addition of wood or other cheap material. It may be made entirely of wire, cut off in the proper lengths, and bent so as to be applied and secured as described. Such a modification will offer a part of the advantages of my invention, but the narrow base or bearing thereby presented to the vine is liable to chafe or cut into it. My vine-lock may be made very successfully of sheet-metal cut in the proper form, and bent. In such case, the sheet-metal should be broad where it is in contact with and supports the vine, and the edges may be rounded or turned outward to avoid cutting the vine.

I do not confine myself to the precise form of the parts herein represented; but having now fully described my device, with the mode of applying and operating it,

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

The vine-lock herein described, as a new article of manufacture, the same being adapted to be applied upon the vine and the trellis-wire, and to be secured by a simple movement thereon, substantially in the manner and for the purposes herein set forth.

EDWARD F. UNDERHILL.

Witnesses:

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