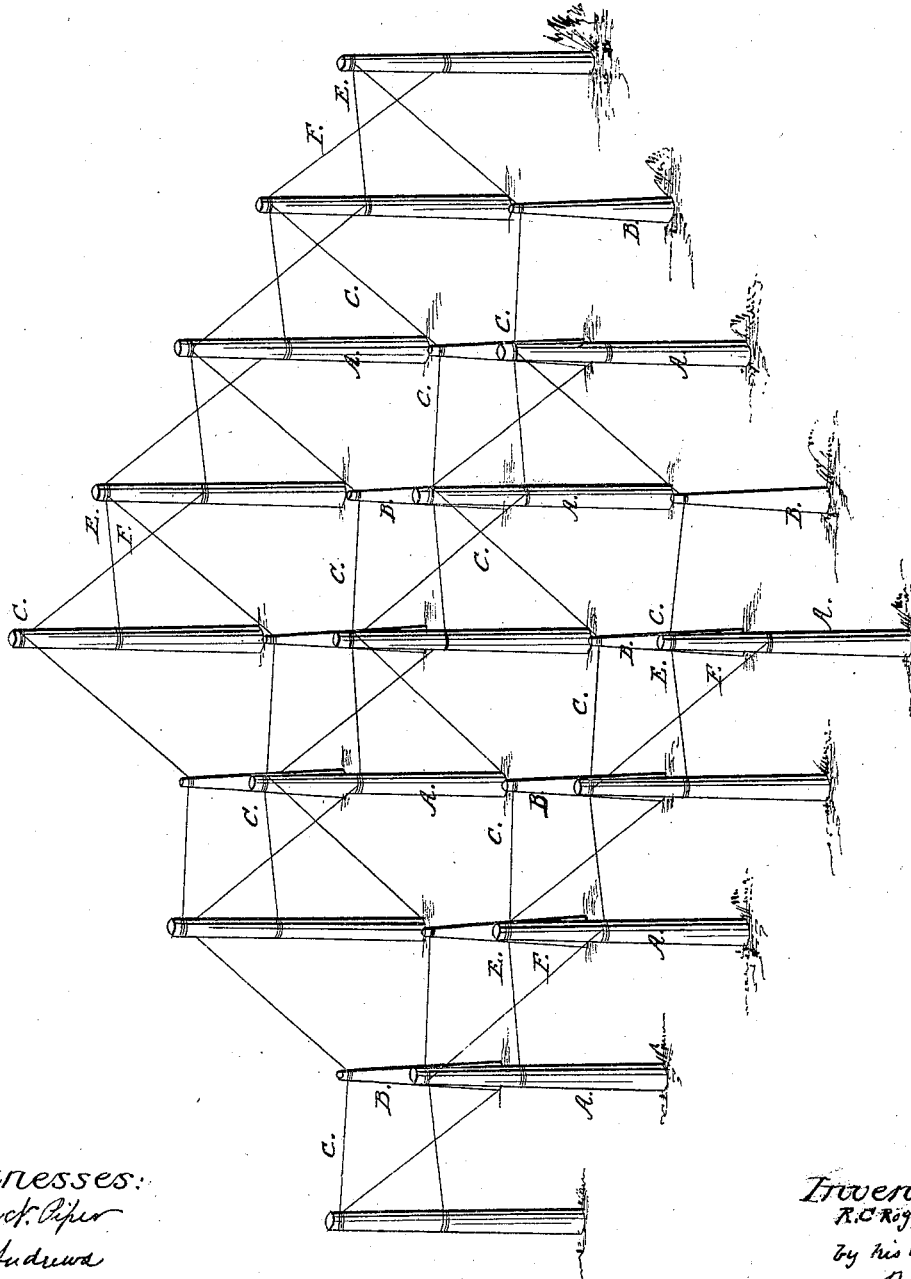


B. C. ROGERS.  
Training Hop-Vines.

No. 55,163.

Patented May 29, 1866.



Witnesses:  
Samuel C. Piper  
George Andrews

Inventor:  
B. C. Rogers.  
by his attorney  
R. H. Eddy

# UNITED STATES PATENT OFFICE.

BENJAMIN C. ROGERS, OF STOCKBRIDGE, VERMONT.

## IMPROVEMENT IN TRAINING HOP-VINES.

Specification forming part of Letters Patent No. 55,163, dated May 29, 1866.

### *To all whom it may concern:*

Be it known that I, BENJAMIN C. ROGERS, of Stockbridge, in the county of Windsor and State of Vermont, have made a new and useful Invention having reference to Training Hop-Vines; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawing, which represents a perspective view of the arrangement of poles and lines constituting my invention.

In carrying out my said invention, the purpose of which is the supporting and training of vines, and particularly hop-vines, while growing, I employ two series of stakes or poles, those of one series being longer than those of the other—that is to say, the longer poles may each be about ten feet in length and each of the shorter ones be about seven feet long.

I divide the ground into squares whose sides may each be about six feet in length. Next I arrange a row of the longer stakes or poles in a straight line on one side of the ground and at the outer angles of the first row of squares. Next I arrange parallel to such row and at the other angles of the squares a row of the shorter stakes with their tops about three feet below those of the longer stakes. In this way I continue to arrange the stakes so as to bring each row of the shorter ones between two rows of the longer ones, the rows when viewed at right angles presenting the longer and shorter stakes as arranged alternately.

In the drawing, A A A, &c., are the longer stakes or poles; B B B, &c., the shorter ones.

I next fasten common twine or any convenient cord or its equivalent to the head of each of the longer stakes of the first row, and from thence continue it and fasten it to the head of the next stake of the second or shorter row, and after having fastened the twine thereto I continue it upward and fasten it to the head of the next stake of the next longer row. In this way I continue throughout the ground, the same being as shown at C C C, &c., in the drawing.

Next, to each row of the longer posts I apply two other lines or twines, E F, and in such manner that each shall go diagonally from post

to post, and from the head of one down to a distance of about three feet from that of the next one, thence upward to the head of the next one. One line I arrange on one side of its range of posts and the other line I dispose on the opposite side of such range, the two lines, like the diagonals of a rectangle, crossing one another between each two consecutive parts, the whole being as represented in the drawing.

I have found by experience that a hop-vine will not run or grow on an inclination nearer to the horizontal than about one foot rise to two feet base.

Each of the stakes is to be supposed to be set in a hill or at a spot where one or more vines are planted. As I have found by experience that two vines run together better than one will if alone, I set in the hills two vines for each string ascending from the stake set in such hill. After these vines may have grown and run up the stake to the strings ascending therefrom, I train two of them to pass up one string and the other two to pass up the other string.

The advantages of my mode of training vines as applied to hop-vines may be thus enumerated: It prevents the vines from being destroyed by "bleeding," as in gathering the hops the vines are to be cut at the tops of the stakes, or by breaking off the front arms, thus avoiding the necessity of cutting the vines close to the ground, which often is very detrimental to them. The hops will ripen earlier than by the common mode of training by poles alone, the arrangement of the cords or strings enabling the sun to shine on the vines to better advantage.

My arrangement is more economical than the common one, as it essentially lessens the amount of poles or stakes required. The stakes used may be much smaller than those ordinarily employed, and may be split or sawed from large timber, thus preventing destruction of young trees, as is usual, in order to obtain those of the requisite length. The twine used costs very little in comparison to the quantity of poles required for supporting a like amount of vines to that which the twines will sustain. Besides a larger yield and better

quality of hops will be obtained by my mode of training, as the wind cannot whip off the front arms, as it can when the vines are wholly supported by long poles, and as the hops ripen earlier, they are not so long exposed to vermin and rust.

I claim as my invention—

The arrangement of stakes and lines, substantially as hereinbefore described, and as represented by the accompanying drawings.

BENJAMIN C. ROGERS.

Witnesses:

DAVID EVERETT,

CHARLES BROWN.