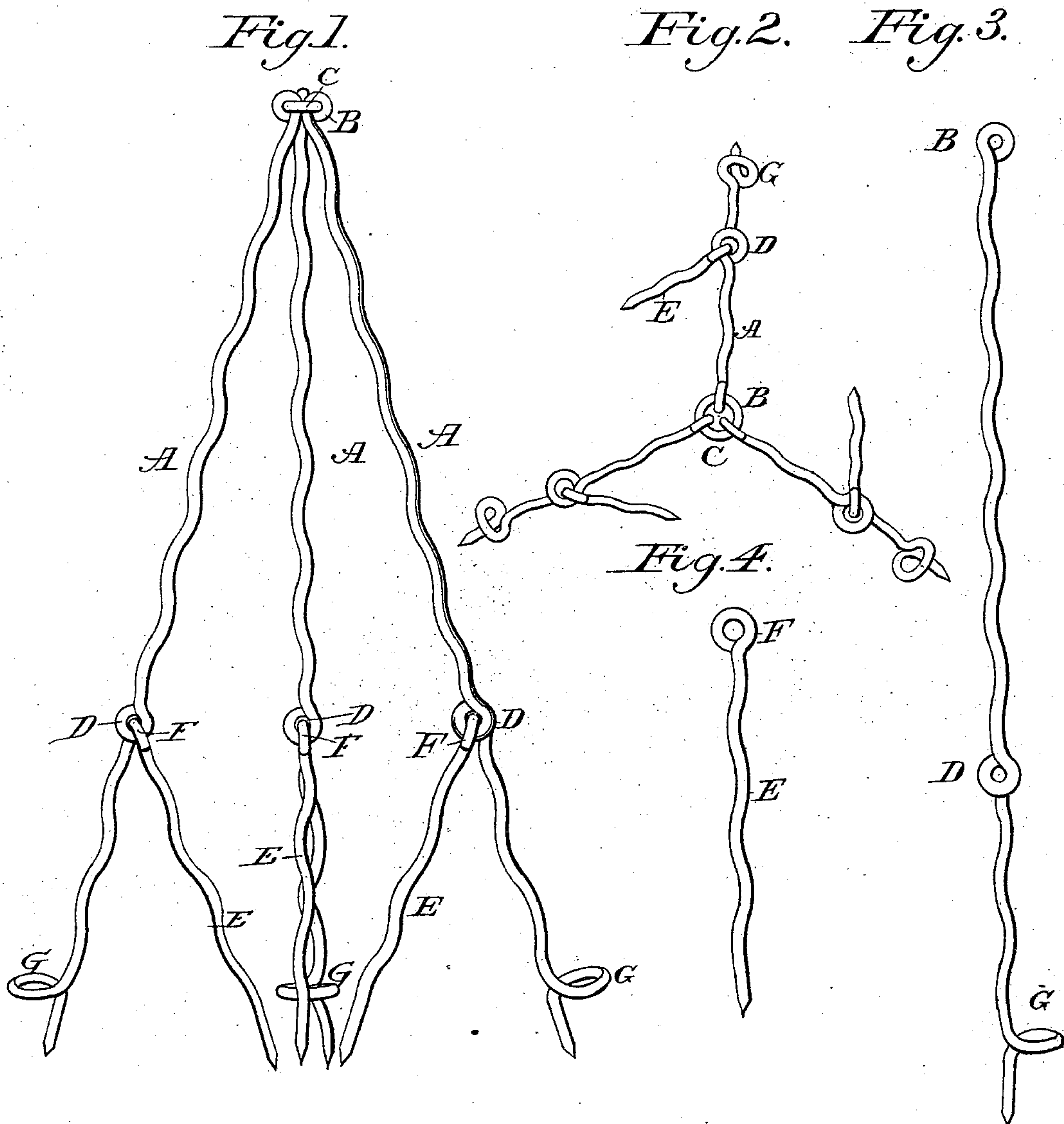


(No Model.)

W. NORRIS.  
HOP TRELLIS.

No. 355,410.

Patented Jan. 4, 1887.



Witnesses:

John Elliott  
G. Elliott

Inventor:

William Norris.

per

William Gill  
Atty

# UNITED STATES PATENT OFFICE.

WILLIAM NORRIS, OF TORONTO, ONTARIO, CANADA.

## HOP-TRELLIS.

SPECIFICATION forming part of Letters Patent No. 355,410, dated January 4, 1887.

Application filed September 28, 1886. Serial No. 214,806. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM NORRIS, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented a certain new and useful Device to be used as a Hop-Trellis; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to a device used in hop-culture, which is placed around the hop-plant to which the plant clings, and by which it is supported while it climbs its way to the top; and it consists in the construction hereinafter described, and specifically pointed out in the claim.

In the accompanying drawings, Figure 1 is an elevation of my device. Fig. 2 is a plan view of the same. Fig. 3 represents a single standard. Fig. 4 represents a single branch or leader.

Similar letters of reference indicate the same or corresponding parts.

A represents a main standard; B, the loop or ring at the top end of the standard; C, the separate ring connecting the standards at the top; D, the loop or eye in the standard, into which the loop of the branch or leader is fastened; E, the branch or leader; F, the loop or eye at the top end of the branch; G, the large loop or ring formed in the standard, which serves as a lever, foot-rest, and stay.

Referring to Fig. 1, it will be seen that the hop-trellis is constructed with three main standards, A, each provided at the top end with a loop, B, and about one third of its length from the lower end with an eye, D, and with a short branch or leader, E, having a loop or eye, F, caught or fastened into the eye D,

and about six inches from the lower end of the standard with a ring or foot-rest, G; the three standards being fastened together at the top, either by the loop B being caught or fastened into each other or into a separate ring, C.

The advantages derived from my invention are as follows: The whole structure, being composed of wire, will not weigh more than about one-sixth part of the ordinary hop-trellis. That being so constructed as to reach the center of the plant or hill, the plant will in the early stages of its growth take hold of and cling to the short branches or leaders, thus being assisted and supported in reaching the main standards.

The natural course of the hop-plant in growing being in twisted or spiral direction, it will more readily take hold of and climb a spiral than a flat surface.

While answering all the purposes of the original hop-poles, my device is more sightly in appearance and much more durable than they are.

Having thus described my invention, I claim—

A hop-trellis composed of standards A of wire, each provided with a loop, B, at its top, an eye, D, about one third its length from the bottom, and a foot-rest, G, near the lower end, with a branch, E, having a loop, F, hooked in the eye D, and a ring, C, passing through the top loops, B, of each of the standards, substantially as described.

WILLIAM NORRIS.

Witnesses:

WILLIAM GILL,

THOMAS E. ROBERTSON.