

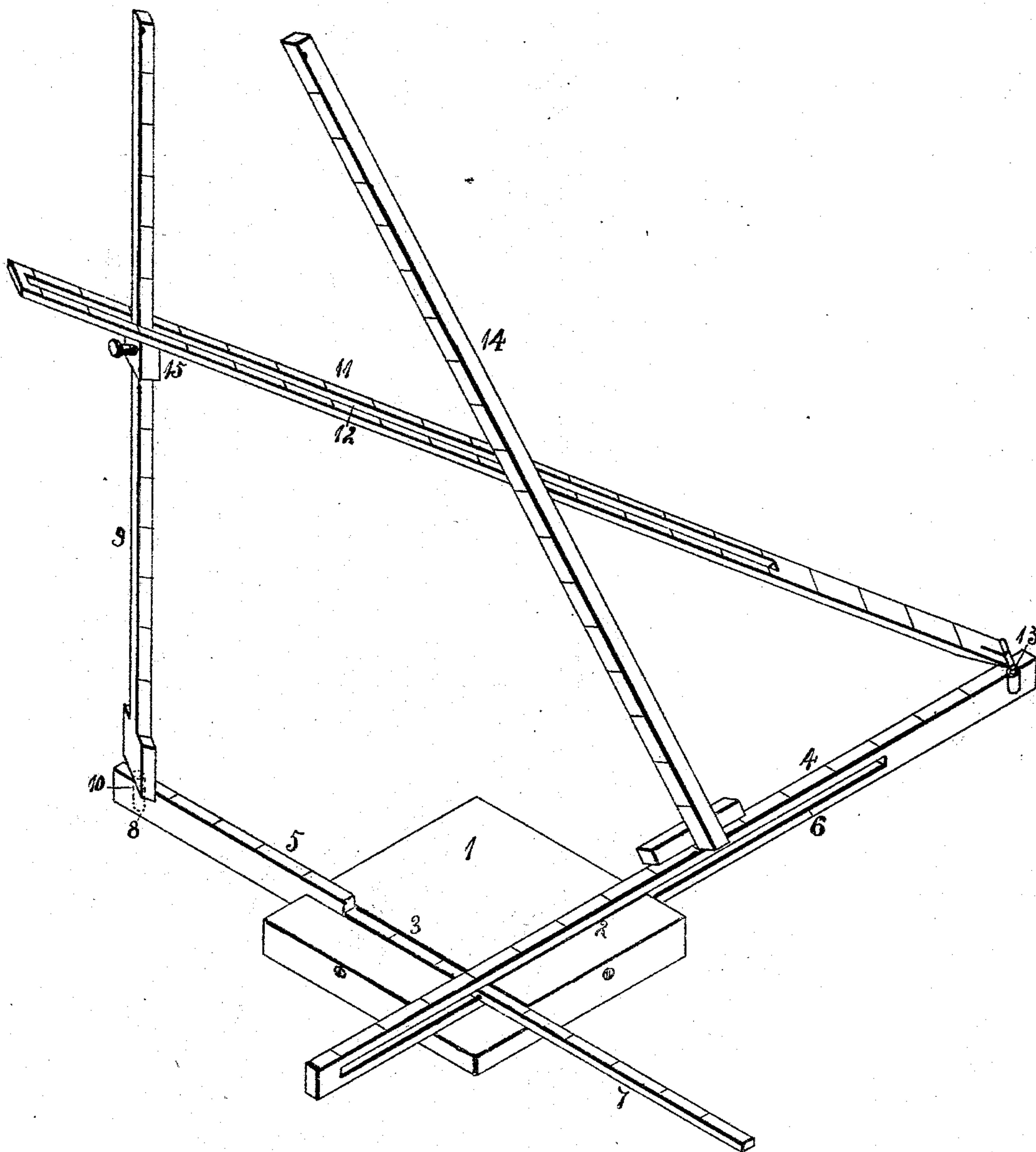
(No Model.)

B. F. MORGAN.

ADJUSTABLE DRAFT FOR ROOF AND BRACE MEASUREMENTS.

No. 515,497.

Patented Feb. 27, 1894.



Witnesses:
S. A. Darnford.
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Atts.

UNITED STATES PATENT OFFICE.

BENJAMIN F. MORGAN, OF STRANG, NEBRASKA.

ADJUSTABLE DRAFT FOR ROOF AND BRACE MEASUREMENTS.

SPECIFICATION forming part of Letters Patent No. 515,497, dated February 27, 1894.

Application filed February 9, 1893. Serial No. 461,698. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. MORGAN, a citizen of the United States, residing at Strang, in the county of Fillmore and State of Nebraska, have invented certain new and useful Improvements in Adjustable Drafts for Roof and Brace Measurements, of which the following is a specification.

The object of this invention is to construct an adjustable draft, by means of which the length, pitch and bevel of any rafter or brace may be obtained.

In the accompanying drawing, I have shown an isometrical representation of my improvements.

The base 1, is provided with grooves 2 and 3 in its upper face at right angles to each other. In these grooves are located plates 4 and 5. The plate 4, is provided with a lengthwise slot 6, and the plate 5, having its end 7, reduced to a size to pass through the slot 6. The other end of the plate 5, is provided with a vertical hole 8. An upright 9, has a stud 10, at its lower end which enters the hole 8, in the plate 5. A valley or hip rafter 11, is provided with a lengthwise slot 12, and a swivel 13, connects it with the end of the plate 4. A cripple 14, is used in connection with the other parts of my improvement. Each of the parts 4 and 5, the valley or hip rafter 11, and the cripple are laid off in feet as shown in the drawing.

In order to obtain the length of the hip rafter, the plates 4 and 5 are moved in their slots in the base plate until the required length of each is obtained. The upper end of the upright is passed through the lengthwise slot 12, of the hip rafter, and a gage block 15, is placed under the hip rafter, and is adjusted until the required height is attained, when the length of the rafter will be given in feet by the scale thereon, and the inches may be taken

by a rule. To obtain the length of a brace connecting the hip rafter and plate 4, the cripple is moved along the required distance on the plate and the point of intersection of the cripple and hip rafter will be the length of the brace as shown by the scale on the cripple. By means of these various parts a bevel may be set by which to cut the pitch or bevel of any rafter or brace. Set screws hold the plates when adjusted.

I claim as my invention—

1. A pitch board consisting of a base, adjustable plates connected therewith, and located at an angle to each other an upright having a connection with one of the plates, an adjustable hip rafter connected to the other plate and with the upright, and a cripple adjustable along the last mentioned plate and hip rafter.

2. A pitch board consisting of a base, adjustable plates connected therewith, and located at an angle to each other an upright having a connection with one of the plates, an adjustable hip rafter having a swivel connection with the other plate and a connection with the upright, and a cripple adjustable along the last mentioned plate and hip rafter.

3. A pitch board consisting of a base, adjustable plates, connected therewith, and located at an angle to each other an upright having a connection with one of the plates, an adjustable hip rafter connected with the other plate and with the upright, and a cripple adjustable along the last mentioned plate and hip rafter the plates, upright, hip rafter and cripple each provided with a scale.

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Witnesses:

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